TRIUMPH PROCESSING INC. PLANT II (Continued) **1006805754**

THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 193936.6

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 212986.7

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 3450.1

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/14/2017
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 07/17/2009
Date achieved compliance: 08/24/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 07/17/2009
Date achieved compliance: 08/24/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL

TRIUMPH PROCESSING INC. PLANT II (Continued) **1006805754**

Enforcement action date: 10/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Contingency Plan and Emergency Procedures
Date violation determined: 07/17/2009
Date achieved compliance: 08/24/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/14/2017
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/24/2015
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/26/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/17/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 08/24/2009
Evaluation lead agency: EPA

Evaluation date: 07/17/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Contingency Plan and Emergency Procedures
Date achieved compliance: 08/24/2009
Evaluation lead agency: EPA

Evaluation date: 07/17/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 08/24/2009

TRIUMPH PROCESSING INC. PLANT II (Continued) **1006805754**

Evaluation lead agency: EPA

ENVIROSTOR:
Facility ID: 71003813
Status: Refer: Other Agency
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Assembly: 63
Senate: 33
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.92356
Longitude: -118.2280
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000140855
Alias Type: EPA Identification Number
Alias Name: 110014368521
Alias Type: EPA (FRS #)
Alias Name: 71003813
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

FINDS:

Registry ID: 110014368521

Environmental Interest/Information System

TRIUMPH PROCESSING INC. PLANT II (Continued) **1006805754**

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

HAZARDOUS WASTE BIENNIAL REPORTER

STATE MASTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1006805754
Registry ID:	110014368521
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110014368521

HAZNET:

Site Name:	TRIUMPH PLANT
Year:	2016
GEPAID:	CAC002884275
Contact:	DALTON, J.R.
Telephone:	3236835782
Mailing Name:	Not reported

TRIUMPH PROCESSING INC. PLANT II (Continued) **1006805754**

Mailing Address:	2588 INDUSTRY WAY
Mailing City,St,Zip:	LYNWOOD, CA 90262
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	4.6
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Los Angeles

N62 **VALENCE SURFACE TECHNOLOGIES LYNWOOD** **ENVIROSTOR** **S106102509**
East **2605 INDUSTRY WAY** **CERS HAZ WASTE** **N/A**
1/2-1 **LYNWOOD, CA 90262** **EMI**
0.917 mi. **NPDES**
4843 ft. **Site 2 of 2 in cluster N** **WDS**
CERS

Relative:
Lower

Actual:
85 ft.

ENVIROSTOR:

Facility ID:	71002759
Status:	Refer: Other Agency
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Chatsworth
Assembly:	63
Senate:	33
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.92407
Longitude:	-118.2264
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD981377260
Alias Type:	EPA Identification Number
Alias Name:	110000474843
Alias Type:	EPA (FRS #)
Alias Name:	71002759
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CERS HAZ WASTE:
Site ID: 404376
CERS ID: 10153895
CERS Description: RCRA LQ HW Generator

Violations:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 06-14-2017
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 06/23/2017. OBSERVATION: Observed discoloration of the roof vent grill which is connected to a pipe that originates from an evaporator inside the building. The evaporator holds filter press waste containing tri-valent chromium. Also observed a very small accumulation of debris on approximately one square foot roof area surrounding the vent grill. During the inspection, Mr. Eric Purinton stated that his staff cleaned the discoloration on the roof vent grill using a wet method to control dust. The cleanup of the roof vent grill was verified. CORRECTIVE ACTION: Clean vent/pipe or any existing plumbing/evaporator lines. Ensure control systems are in place to prevent any future release of tri-valent chromium. Submit photos/documentation to the CUPA demonstrating the spill has been properly removed and managed.
Violation Division: Los Angeles County Fire Department
Violation Program: HWLQG
Violation Source: CERS

Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 02-24-2015
Citation: HSC 6.5 25200.3(e) - California Health and Safety Code, Chapter 6.5, Section(s) 25200.3(e)
Violation Description: Failure of the generator to submit, at least 60 days before commencing treatment of hazardous waste to submit a notification, in person or by certified mail, with return receipt requested.
Violation Notes: OBSERVATION: A notification for treating hazardous waste onsite has not been submitted to the CUPA. No person may treat hazardous waste onsite without submitting notification sixty (60) days prior to

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

beginning the first treatment of hazardous waste. A notification for the evaporation of waste waster treatment sludge has not been provided by the operator. CORRECTIVE ACTION: Immediately submit the required hazardous waste tretment notification to the CUPA for review. Properly submit a notification form for the evaporator for evaporation of the waste water treatment sludge.

Violation Division: Los Angeles County Fire Department
Violation Program: CA
Violation Source: CERS

Evaluation:

Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Reviewed photographic proof of compliance. NOV abated.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Environmental Safety Health Manager, gave consent for the inspection and accompanied the CUPA Inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Env. Safety and Health Manager, gave consent for the inspection and accompanied the CUPA inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-26-2011
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Inspector Name: Los Angeles County
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-08-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: NOV issued on 2/24/15 abated.
Eval Division: Los Angeles County Fire Department

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager. No significant violation observed at the time of inspection.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Site Address: 2605 INDUSTRY WAY
Site City: LYNWOOD
Site Zip: 90262-4007
Enf Action Date: 02-24-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Los Angeles County Fire Department
Enf Action Program: CA
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Onsite Treatment Unit Owner Operator
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: TRIUMPH PROCESSING
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WAY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 90262-4007
Affiliation Phone: (323) 563-1338

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

Affiliation Type Desc:	Document Preparer
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90262
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	TRIUMPH PROCESSING INC.
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	Operator
Entity Name:	TRIUMPH PROCESSING INC - PLANT 1
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	Environmental Contact
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Zip:	90262
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Eric Purinton
Entity Title:	Environmental Safety & Health Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	TRIUMPH PROCESSING INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Site ID:	404376
CERS ID:	10153895
CERS Description:	Hazardous Chemical Management

Violations:

Site ID:	404376
Site Name:	TRIUMPH PROCESSING INC - PLANT 1
Violation Date:	06-14-2017
Citation:	22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes:	Returned to compliance on 06/23/2017. OBSERVATION: Observed discoloration of the roof vent grill which is connected to a pipe that originates from an evaporator inside the building. The evaporator holds filter press waste containing tri-valent chromium. Also observed a very small accumulation of debris on approximately one square foot roof area surrounding the vent grill. During the inspection, Mr. Eric Purinton stated that his staff cleaned the discoloration on the roof vent grill using a wet method to control dust. The cleanup of the roof vent grill was verified. CORRECTIVE ACTION: Clean vent/pipe or any existing plumbing/evaporator lines. Ensure control systems are in place to prevent any future release of tri-valent chromium. Submit photos/documentation to the CUPA demonstrating the spill has been properly removed and managed.
Violation Division:	Los Angeles County Fire Department
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	404376
Site Name:	TRIUMPH PROCESSING INC - PLANT 1

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Violation Date: 02-24-2015
Citation: HSC 6.5 25200.3(e) - California Health and Safety Code, Chapter 6.5, Section(s) 25200.3(e)
Violation Description: Failure of the generator to submit, at least 60 days before commencing treatment of hazardous waste to submit a notification, in person or by certified mail, with return receipt requested.
Violation Notes: OBSERVATION: A notification for treating hazardous waste onsite has not been submitted to the CUPA. No person may treat hazardous waste onsite without submitting notification sixty (60) days prior to beginning the first treatment of hazardous waste. A notification for the evaporation of waste waster treatment sludge has not been provided by the operator. CORRECTIVE ACTION: Immediately submit the required hazardous waste tretment notification to the CUPA for review. Properly submit a notification form for the evaporator for evaporation of the waste water treatment sludge.
Violation Division: Los Angeles County Fire Department
Violation Program: CA
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Reviewed photographic proof of compliance. NOV abated.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Environmental Safety Health Manager, gave consent for the inspection and accompanied the CUPA Inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Env. Safety and Health Manager, gave consent for the inspection and accompanied the CUPA inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-26-2011
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Inspector Name: Los Angeles County
Eval Division: Los Angeles County Fire Department

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-08-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: NOV issued on 2/24/15 abated.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager. No significant violation observed at the time of inspection.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Site Address: 2605 INDUSTRY WAY
Site City: LYNWOOD
Site Zip: 90262-4007
Enf Action Date: 02-24-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Los Angeles County Fire Department
Enf Action Program: CA
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Onsite Treatment Unit Owner Operator
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Type Desc:	Property Owner
Entity Name:	TRIUMPH PROCESSING
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262-4007
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

Affiliation Type Desc:	Document Preparer
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90262
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	TRIUMPH PROCESSING INC.
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	Operator
Entity Name:	TRIUMPH PROCESSING INC - PLANT 1
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Zip: Not reported
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: Environmental Contact
Entity Name: ERIC PURINTON
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90262
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: TRIUMPH PROCESSING INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 404376
CERS ID: 10153895
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 06-14-2017
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 06/23/2017. OBSERVATION: Observed discoloration of the roof vent grill which is connected to a pipe that originates from an evaporator inside the building. The evaporator holds filter press waste containing tri-valent chromium. Also observed a very small accumulation of debris on approximately one square foot roof area surrounding the vent grill. During the inspection, Mr. Eric Purinton stated that his staff cleaned the discoloration on the roof vent grill using a wet method to control dust. The cleanup of the roof vent grill was verified. CORRECTIVE ACTION: Clean vent/pipe or any

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

existing plumbing/evaporator lines. Ensure control systems are in place to prevent any future release of tri-valent chromium. Submit photos/documentation to the CUPA demonstrating the spill has been properly removed and managed.

Violation Division: Los Angeles County Fire Department
Violation Program: HWLQG
Violation Source: CERS

Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 02-24-2015
Citation: HSC 6.5 25200.3(e) - California Health and Safety Code, Chapter 6.5, Section(s) 25200.3(e)
Violation Description: Failure of the generator to submit, at least 60 days before commencing treatment of hazardous waste to submit a notification, in person or by certified mail, with return receipt requested.
Violation Notes: OBSERVATION: A notification for treating hazardous waste onsite has not been submitted to the CUPA. No person may treat hazardous waste onsite without submitting notification sixty (60) days prior to beginning the first treatment of hazardous waste. A notification for the evaporation of waste waster treatment sludge has not been provided by the operator. CORRECTIVE ACTION: Immediately submit the required hazardous waste tretment notification to the CUPA for review. Properly submit a notification form for the evaporator for evaporation of the waste water treatment sludge.
Violation Division: Los Angeles County Fire Department
Violation Program: CA
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Reviewed photographic proof of compliance. NOV abated.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Environmental Safety Health Manager, gave consent for the inspection and accompanied the CUPA Inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Env. Safety and Health Manager, gave consent for the inspection and accompanied the CUPA inspectors during the walk-through of the facility.

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-26-2011
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Inspector Name: Los Angeles County
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-08-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: NOV issued on 2/24/15 abated.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager. No significant violation observed at the time of inspection.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Site Address: 2605 INDUSTRY WAY
Site City: LYNWOOD
Site Zip: 90262-4007
Enf Action Date: 02-24-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Los Angeles County Fire Department
Enf Action Program: CA
Enf Action Source: CERS

Affiliation:

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Eric Purinton
Entity Title:	Environmental Safety & Health Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	TRIUMPH PROCESSING
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262-4007
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

Affiliation Type Desc:	Document Preparer
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90262
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	TRIUMPH PROCESSING INC.
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Zip: 90262
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: Operator
Entity Name: TRIUMPH PROCESSING INC - PLANT 1
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: Environmental Contact
Entity Name: ERIC PURINTON
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90262
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: TRIUMPH PROCESSING INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 404376
CERS ID: 10153895
CERS Description: Hazardous Waste Onsite Treatment

Violations:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 06-14-2017
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

	the environment.
Violation Notes:	Returned to compliance on 06/23/2017. OBSERVATION: Observed discoloration of the roof vent grill which is connected to a pipe that originates from an evaporator inside the building. The evaporator holds filter press waste containing tri-valent chromium. Also observed a very small accumulation of debris on approximately one square foot roof area surrounding the vent grill. During the inspection, Mr. Eric Purinton stated that his staff cleaned the discoloration on the roof vent grill using a wet method to control dust. The cleanup of the roof vent grill was verified. CORRECTIVE ACTION: Clean vent/pipe or any existing plumbing/evaporator lines. Ensure control systems are in place to prevent any future release of tri-valent chromium. Submit photos/documentation to the CUPA demonstrating the spill has been properly removed and managed.
Violation Division:	Los Angeles County Fire Department
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	404376
Site Name:	TRIUMPH PROCESSING INC - PLANT 1
Violation Date:	02-24-2015
Citation:	HSC 6.5 25200.3(e) - California Health and Safety Code, Chapter 6.5, Section(s) 25200.3(e)
Violation Description:	Failure of the generator to submit, at least 60 days before commencing treatment of hazardous waste to submit a notification, in person or by certified mail, with return receipt requested.
Violation Notes:	OBSERVATION: A notification for treating hazardous waste onsite has not been submitted to the CUPA. No person may treat hazardous waste onsite without submitting notification sixty (60) days prior to beginning the first treatment of hazardous waste. A notification for the evaporation of waste waster treatment sludge has not been provided by the operator. CORRECTIVE ACTION: Immediately submit the required hazardous waste tretment notification to the CUPA for review. Properly submit a notification form for the evaporator for evaporation of the waste water treatment sludge.
Violation Division:	Los Angeles County Fire Department
Violation Program:	CA
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	01-10-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewed photographic proof of compliance. NOV abated.
Eval Division:	Los Angeles County Fire Department
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Eric Purinton - Environmental Safety Health Manager, gave consent for the inspection and accompanied the CUPA Inspectors during the walk-through of the facility.
Eval Division:	Los Angeles County Fire Department

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Env. Safety and Health Manager, gave consent for the inspection and accompanied the CUPA inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-26-2011
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Inspector Name: Los Angeles County
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-08-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: NOV issued on 2/24/15 abated.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager. No significant violation observed at the time of inspection.
Eval Division: Los Angeles County Fire Department
Eval Program: CA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-14-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton, EHS Manager.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Site Address: 2605 INDUSTRY WAY
Site City: LYNWOOD
Site Zip: 90262-4007

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Los Angeles County Fire Department
Enf Action Program:	CA
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Eric Purinton
Entity Title:	Environmental Safety & Health Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	TRIUMPH PROCESSING
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262-4007
Affiliation Phone:	(323) 563-1338

Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

Affiliation Type Desc:	Document Preparer
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90262

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	TRIUMPH PROCESSING INC.
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90262
Affiliation Phone:	(323) 563-1338
Affiliation Type Desc:	Operator
Entity Name:	TRIUMPH PROCESSING INC - PLANT 1
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(323) 563-1338
Affiliation Type Desc:	Environmental Contact
Entity Name:	ERIC PURINTON
Entity Title:	Not reported
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90262
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Eric Purinton
Entity Title:	Environmental Safety & Health Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	TRIUMPH PROCESSING INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Site ID:	443409
CERS ID:	10772560
CERS Description:	Hazardous Chemical Management

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: VALENCE SURFACE TECHNOLOGIES - LYNWOOD
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Los Angeles County Fire
Entity Title: Not reported
Affiliation Address: 5825 Rickenbacker Road
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90040-3027
Affiliation Phone: (323) 890-4045

Site ID: 443409
CERS ID: 10772560
CERS Description: Hazardous Waste Onsite Treatment

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: VALENCE SURFACE TECHNOLOGIES - LYNWOOD
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Los Angeles County Fire
Entity Title: Not reported
Affiliation Address: 5825 Rickenbacker Road
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90040-3027
Affiliation Phone: (323) 890-4045

Site ID: 443409
CERS ID: 10772560
CERS Description: Hazardous Waste Generator

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: VALENCE SURFACE TECHNOLOGIES - LYNWOOD
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045
Site ID:	443409
CERS ID:	10772560
CERS Description:	RCRA LQ HW Generator

Affiliation:

Affiliation Type Desc:	Parent Corporation
Entity Name:	VALENCE SURFACE TECHNOLOGIES - LYNWOOD
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	23850
Air District Name:	SC
SIC Code:	3479
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	22
Reactive Organic Gases Tons/Yr:	22
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	66171
Air District Name:	SC
SIC Code:	3479
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	23850
Air District Name:	SC
SIC Code:	3479
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	21
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1993
County Code:	19
Air Basin:	SC
Facility ID:	23850
Air District Name:	SC
SIC Code:	3479
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	26
Reactive Organic Gases Tons/Yr:	14
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	19
Air Basin:	SC

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Facility ID:	23850
Air District Name:	SC
SIC Code:	3479
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	26
Reactive Organic Gases Tons/Yr:	14
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2012
County Code:	19
Air Basin:	SC
Facility ID:	800267
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14.077030103
Reactive Organic Gases Tons/Yr:	13.73136
Carbon Monoxide Emissions Tons/Yr:	1.73651
NOX - Oxides of Nitrogen Tons/Yr:	1.23076
SOX - Oxides of Sulphur Tons/Yr:	0.01383
Particulate Matter Tons/Yr:	0.17459100205
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.17458591885

NPDES:

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	4 19I002226
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	11/13/2018
Operator Name:	Triumph Processing Inc
Operator Address:	2605 Industry Wy
Operator City:	Lynwood
Operator State:	California

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Operator Zip:	90262
NPDES as of 03/2018:	
NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	4
Regulatory Measure ID:	188916
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	4 19I002226
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Triumph Processing Inc
Discharge Address:	2605 Industry Wy
Discharge City:	Lynwood
Discharge State:	California
Discharge Zip:	90262
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	4
Regulatory Measure ID:	188916
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	4 19I002226
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	03/31/1992
Status:	Active
Status Date:	03/31/1992
Place Size:	125000
Place Size Unit:	SqFt
Contact:	Eric Purinton
Contact Title:	Environmental Safety and Health Manager
Contact Phone:	323-563-1338
Contact Phone Ext:	Not reported
Contact Email:	epurinton@triumphgroup.com
Operator Name:	Triumph Processing Inc
Operator Address:	2605 Industry Wy
Operator City:	Lynwood
Operator State:	California
Operator Zip:	90262
Operator Contact:	Eric Purinton

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Operator Contact Title:	Environmental Safety and Health Manager
Operator Contact Phone:	323-563-1338
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	epurinton@triumphgroup.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	323-563-1338
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Compton Creek
Certifier:	Ashok Advani
Certifier Title:	Vice President of Operations
Certification Date:	09-JUN-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Terminated
NPDES Number:	CAS000001
Region:	4
Agency Number:	0
Regulatory Measure ID:	188916
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	4 19I002226
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Termination Date Of Regulatory Measure:	09/11/2018
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	2605 Industry Wy
Discharge Name:	Triumph Processing Inc

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Discharge City:	Lynwood
Discharge State:	California
Discharge Zip:	90262
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	4
Regulatory Measure ID:	188916
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	4 19I002226
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Triumph Processing Inc
Discharge Address:	2605 Industry Wy
Discharge City:	Lynwood
Discharge State:	California
Discharge Zip:	90262
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	4
Regulatory Measure ID:	188916
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	4 19I002226
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	03/31/1992
Status:	Active
Status Date:	03/31/1992
Place Size:	125000
Place Size Unit:	SqFt
Contact:	Eric Purinton
Contact Title:	Environmental Safety and Health Manager

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Contact Phone:	323-563-1338
Contact Phone Ext:	Not reported
Contact Email:	epurinton@triumphgroup.com
Operator Name:	Triumph Processing Inc
Operator Address:	2605 Industry Wy
Operator City:	Lynwood
Operator State:	California
Operator Zip:	90262
Operator Contact:	Eric Purinton
Operator Contact Title:	Environmental Safety and Health Manager
Operator Contact Phone:	323-563-1338
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	epurinton@triumphgroup.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	323-563-1338
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Compton Creek
Certifier:	Ashok Advani
Certifier Title:	Vice President of Operations
Certification Date:	09-JUN-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

WDS:

Facility ID:	4 19I002226
Facility Type:	Not reported
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Subregion:	4
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	DV IND INC.
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Not reported
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CERS TANKS:

Site ID:	404376
CERS ID:	10153895
Site Name:	TRIUMPH PROCESSING INC - PLANT 1
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	404376
Site Name:	TRIUMPH PROCESSING INC - PLANT 1
Violation Date:	06-14-2017
Citation:	22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes:	Returned to compliance on 06/23/2017. OBSERVATION: Observed discoloration of the roof vent grill which is connected to a pipe that originates from an evaporator inside the building. The evaporator holds filter press waste containing tri-valent chromium. Also observed a very small accumulation of debris on approximately one square foot

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

roof area surrounding the vent grill. During the inspection, Mr. Eric Purinton stated that his staff cleaned the discoloration on the roof vent grill using a wet method to control dust. The cleanup of the roof vent grill was verified. CORRECTIVE ACTION: Clean vent/pipe or any existing plumbing/evaporator lines. Ensure control systems are in place to prevent any future release of tri-valent chromium. Submit photos/documentation to the CUPA demonstrating the spill has been properly removed and managed.

Violation Division: Los Angeles County Fire Department
Violation Program: HWLQG
Violation Source: CERS

Site ID: 404376
Site Name: TRIUMPH PROCESSING INC - PLANT 1
Violation Date: 02-24-2015
Citation: HSC 6.5 25200.3(e) - California Health and Safety Code, Chapter 6.5, Section(s) 25200.3(e)
Violation Description: Failure of the generator to submit, at least 60 days before commencing treatment of hazardous waste to submit a notification, in person or by certified mail, with return receipt requested.
Violation Notes: OBSERVATION: A notification for treating hazardous waste onsite has not been submitted to the CUPA. No person may treat hazardous waste onsite without submitting notification sixty (60) days prior to beginning the first treatment of hazardous waste. A notification for the evaporation of waste waster treatment sludge has not been provided by the operator. CORRECTIVE ACTION: Immediately submit the required hazardous waste tretment notification to the CUPA for review. Properly submit a notification form for the evaporator for evaporation of the waste water treatment sludge.
Violation Division: Los Angeles County Fire Department
Violation Program: CA
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Reviewed photographic proof of compliance. NOV abated.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Eric Purinton - Environmental Safety Health Manager, gave consent for the inspection and accompanied the CUPA Inspectors during the walk-through of the facility.
Eval Division: Los Angeles County Fire Department
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Eval Type:	Routine done by local agency
Eval Notes:	Eric Purinton - Env. Safety and Health Manager, gave consent for the inspection and accompanied the CUPA inspectors during the walk-through of the facility.
Eval Division:	Los Angeles County Fire Department
Eval Program:	CA
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-26-2011
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Inspector Name: Los Angeles County
Eval Division:	Los Angeles County Fire Department
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	NOV issued on 2/24/15 abated.
Eval Division:	Los Angeles County Fire Department
Eval Program:	CA
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-14-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Eric Purinton, EHS Manager. No significant violation observed at the time of inspection.
Eval Division:	Los Angeles County Fire Department
Eval Program:	CA
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-14-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Eric Purinton, EHS Manager.
Eval Division:	Los Angeles County Fire Department
Eval Program:	HWLQG
Eval Source:	CERS

Enforcement Action:

Site ID:	404376
Site Name:	TRIUMPH PROCESSING INC - PLANT 1
Site Address:	2605 INDUSTRY WAY
Site City:	LYNWOOD
Site Zip:	90262-4007
Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Los Angeles County Fire Department
Enf Action Program:	CA

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Enf Action Source: CERS

Affiliation:

Affiliation Type Desc: Onsite Treatment Unit Owner Operator
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: TRIUMPH PROCESSING
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WAY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 90262-4007
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: CUPA District
Entity Name: Los Angeles County Fire
Entity Title: Not reported
Affiliation Address: 5825 Rickenbacker Road
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90040-3027
Affiliation Phone: (323) 890-4045

Affiliation Type Desc: Document Preparer
Entity Name: ERIC PURINTON
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WAY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90262
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: TRIUMPH PROCESSING INC.
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WY

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 90262
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: Operator
Entity Name: TRIUMPH PROCESSING INC - PLANT 1
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (323) 563-1338

Affiliation Type Desc: Environmental Contact
Entity Name: ERIC PURINTON
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90262
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Eric Purinton
Entity Title: Environmental Safety & Health Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: TRIUMPH PROCESSING INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 519051
CERS ID: 870088
Site Name: VALENCE SURFACE TECHNOLOGIES DBA TRIUMPH PROCESSING INC
CERS Description: Industrial Facility Storm Water

Affiliation:
Affiliation Type Desc: Owner/Operator
Entity Name: Triumph Processing Inc
Entity Title: Operator
Affiliation Address: 2605 Industry Wy
Affiliation City: Lynwood

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90262
Affiliation Phone: Not reported

Site ID: 500378
CERS ID: 110042020363
Site Name: TRIUMPH PROCESSING INC. PLANT I
CERS Description: US EPA Air Emission Inventory System (EIS)

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: ERIC PURINTON
Entity Title: ENV SAFETY & HEALTH ENG
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: FAYE YARBROUGH
Entity Title: LABORATORY MANAGER
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: TRIUMPH PROCESSING ; PLT 1
Entity Title: OPERATOR
Affiliation Address: 2605 INDUSTRY WAY
Affiliation City: LYNWOOD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: TRIUMPH PRCSG
Entity Title: Not reported
Affiliation Address: 2605 INDUSTRY WAY
Affiliation City: LYNWOOD
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Public Contact
Entity Name: ERIC PURINTON
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported

VALENCE SURFACE TECHNOLOGIES LYNWOOD (Continued) **S106102509**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	ERIC PURINTON
Entity Title:	ENV SAFETY & HEALTH ENG
Affiliation Address:	2605 INDUSTRY WAY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Owner
Entity Name:	TRIUMPH PROCESSING
Entity Title:	OWNER
Affiliation Address:	2605 INDUSTRY WY
Affiliation City:	LYNWOOD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Site ID:	443409
CERS ID:	10772560
Site Name:	VALENCE SURFACE TECHNOLOGIES - LYNWOOD (PLANT 2)
CERS Description:	Chemical Storage Facilities

Affiliation:

Affiliation Type Desc:	Parent Corporation
Entity Name:	VALENCE SURFACE TECHNOLOGIES - LYNWOOD
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	Not reported
Affiliation Address:	5825 Rickenbacker Road
Affiliation City:	Commerce
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90040-3027
Affiliation Phone:	(323) 890-4045

O63 **MAGNETEK** **ENVIROSTOR** **S108195977**
ENE **11510 S. ALAMEDA STREET** **VCP** **N/A**
1/2-1 **LYNWOOD, CA 90262**
0.968 mi.
5110 ft. **Site 1 of 2 in cluster O**

Relative:
Higher

Actual:
97 ft.

ENVIROSTOR:

Facility ID:	60000484
Status:	Active
Status Date:	01/29/2016
Site Code:	301524
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	2.6
NPL:	NO
Regulatory Agencies:	SMBRP, US EPA
Lead Agency:	US EPA
Program Manager:	Jose Diaz
Supervisor:	Haissam Salloum
Division Branch:	Cleanup Chatsworth
Assembly:	63
Senate:	33
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.93054
Longitude:	-118.2241
APN:	6169001008
Past Use:	EQUIPMENT/INSTRUMENT REPAIR, MANUFACTURING - INDUSTRIAL MACHINERY, UTILITY - ELECTRIC
Potential COC:	Under Investigation Polychlorinated biphenyls (PCBs
Confirmed COC:	Under Investigation Polychlorinated biphenyls (PCBs
Potential Description:	AQUI, IA, OTH, SOIL, SV
Alias Name:	6169001008
Alias Type:	APN
Alias Name:	110033608530
Alias Type:	EPA (FRS #)
Alias Name:	SL0002045700
Alias Type:	GeoTracker Global ID
Alias Name:	301524
Alias Type:	Project Code (Site Code)
Alias Name:	60000484
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/18/2017
Comments:	Letter sent via email
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	11/01/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

MAGNETEK (Continued) **S108195977**

Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 07/09/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 10/03/2014
Comments: Emailed comments and approval, hard letter to follow.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 10/03/2014
Comments: Emailed comments and approval, hard copy letter to follow.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/30/2016
Comments: Response to DTSC comments acceptable.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/13/2018
Comments: GSU staff concur with the recommendation to conduct additional soil vapor sampling to delineate the extent of soil vapor impacts. The consultant is no longer working on the project. PM did not request that the report be revised and approved the report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 09/24/2017
Comments: field work completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/22/2017
Comments: Sent letter via registered mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/23/2014
Comments: Final Signed VCA - EDO Inc.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/19/2016
Comments: Estimate emailed

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

MAGNETEK (Continued) **S108195977**

Future Document Type: Remedial Action Plan
Future Due Date: 2019
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60000484
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2.6
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP, US EPA
Lead Agency: US EPA
Lead Agency Description: US EPA
Project Manager: Jose Diaz
Supervisor: Haissam Salloum
Division Branch: Cleanup Chatsworth
Site Code: 301524
Assembly: 63
Senate: 33
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 01/29/2016
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 33.93054 / -118.2241
APN: 6169001008
Past Use: EQUIPMENT/INSTRUMENT REPAIR, MANUFACTURING - INDUSTRIAL MACHINERY, UTILITY - ELECTRIC
Potential COC: 31001, 30018
Confirmed COC: 31001,30018
Potential Description: AQUI, IA, OTH, SOIL, SV
Alias Name: 6169001008
Alias Type: APN
Alias Name: 110033608530
Alias Type: EPA (FRS #)
Alias Name: SL0002045700
Alias Type: GeoTracker Global ID
Alias Name: 301524
Alias Type: Project Code (Site Code)
Alias Name: 60000484
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/18/2017
Comments: Letter sent via email

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement

MAGNETEK (Continued) **S108195977**

Completed Date: 11/01/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 07/09/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 10/03/2014
Comments: Emailed comments and approval, hard letter to follow.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 10/03/2014
Comments: Emailed comments and approval, hard copy letter to follow.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/30/2016
Comments: Response to DTSC comments acceptable.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/13/2018
Comments: GSU staff concur with the recommendation to conduct additional soil vapor sampling to delineate the extent of soil vapor impacts. The consultant is no longer working on the project. PM did not request that the report be revised and approved the report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 09/24/2017
Comments: field work completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/22/2017
Comments: Sent letter via registered mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/23/2014
Comments: Final Signed VCA - EDO Inc.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate

MAGNETEK (Continued) **S108195977**

Completed Date:	09/19/2016
Comments:	Estimate emailed
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Action Plan
Future Due Date:	2019
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

O64 **LYNWOOD TSI #1** **ENVIROSTOR** **S107736645**
ENE **11400, 11410, 11420 SOUTH ALAMEDA AVENUE** **N/A**
1/2-1 **LYNWOOD, CA 90262**
0.977 mi.
5160 ft. **Site 2 of 2 in cluster O**

Relative:
Higher

Actual:
97 ft.

ENVIROSTOR:

Facility ID:	70000022
Status:	Inactive - Needs Evaluation
Status Date:	05/01/2005
Site Code:	301207
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	10.5
NPL:	NO
Regulatory Agencies:	SMBRP, US EPA
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Sayareh Amirebrahimi
Division Branch:	Cleanup Chatsworth
Assembly:	63
Senate:	33
Special Program:	EPA - Target Site Investigation
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	33.93206
Longitude:	-118.2253
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	Arsenic
Confirmed COC:	Arsenic
Potential Description:	SOIL
Alias Name:	301207
Alias Type:	Project Code (Site Code)
Alias Name:	70000022
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	04/29/2005
Comments:	Revised Final PEA is received and approved.

LYNWOOD TSI #1 (Continued) **S107736645**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LYNWOOD	S102426235	CALTRANS SITE #25-3	1600 IMPERIAL HWY	90262	LUST
LYNWOOD	S106386914	CITY OF LYNWOOD -REGIONAL JUSTICE	IMPERIAL	90262	CPS-SLIC
WILLOWBROOK	S102432239	KING/DREW MEDICAL MAGNET	COMPTON AVE	90059	LUST, HIST CORTESE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 41

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 34
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/19/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 48

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 04/15/2019
Number of Days to Update: 52

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 32

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 41

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 40

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 04/03/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 02/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018
Date Data Arrived at EDR: 10/11/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 57

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/11/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/21/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/03/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 01/23/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/26/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 04/18/2019
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 11

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 04/09/2019
Number of Days to Update: 18

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 47

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/10/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 56

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 23
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/05/2019
Number of Days to Update: 31
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 03/19/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 41
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 59

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 58

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/24/2019
Date Data Arrived at EDR: 01/25/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 39

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 17

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/12/2019
Number of Days to Update: 28

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 56

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/16/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 13

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/19/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 50

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/01/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 31

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/07/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/12/2019
Number of Days to Update: 42

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/12/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 18

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 60

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 67

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 48

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 03/06/2019
Date Data Arrived at EDR: 03/06/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 54

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

SAN DIEGO CO. SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 15

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 53

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 33

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 42

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 42

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 22

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/14/2019
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

LINCOLN ELEMENTARY SCHOOL
1667 EAST 118TH STREET
LOS ANGELES, CA 90059

TARGET PROPERTY COORDINATES

Latitude (North):	33.926421 - 33° 55' 35.12''
Longitude (West):	118.243615 - 118° 14' 37.01''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	385049.9
UTM Y (Meters):	3754499.8
Elevation:	92 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5633765 SOUTH GATE, CA
Version Date:	2012
West Map:	5640440 INGLEWOOD, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

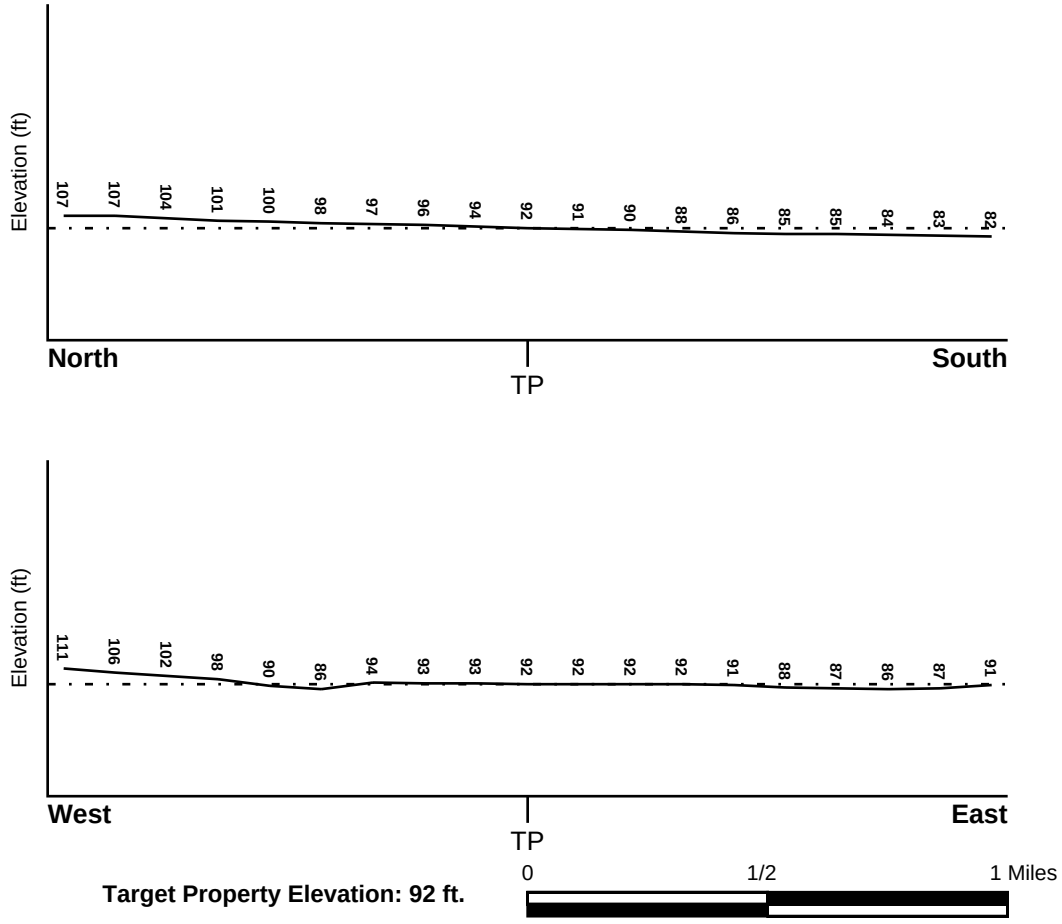
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 92 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06037C1815F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06037C1785F	FEMA FIRM Flood data
06037C1805F	FEMA FIRM Flood data
06037C1795F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
SOUTH GATE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Surficial Soil Types:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Shallow Soil Types:
fine sandy loam
gravelly - loam
sand
silty clay

Deeper Soil Types:
stratified
clay loam
silty clay loam
gravelly - sandy loam
coarse sand
sand
weathered bedrock
very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000139051	1/4 - 1/2 Mile SW
B6	USGS40000139012	1/2 - 1 Mile SE
B7	USGS40000139013	1/2 - 1 Mile SE
8	USGS40000139112	1/2 - 1 Mile WNW
C10	USGS40000139046	1/2 - 1 Mile WSW
C11	USGS40000139044	1/2 - 1 Mile WSW
C12	USGS40000139043	1/2 - 1 Mile WSW
C15	USGS40000139045	1/2 - 1 Mile WSW
21	USGS40000138964	1/2 - 1 Mile SSE
22	USGS40000139050	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	4085	1/2 - 1 Mile NW
A3	4086	1/2 - 1 Mile NW
A4	4089	1/2 - 1 Mile NW
B5	4097	1/2 - 1 Mile SE
9	4090	1/2 - 1 Mile NE
13	4130	1/2 - 1 Mile SSW
C14	CADWR8000006123	1/2 - 1 Mile WSW
D16	CADWR8000006126	1/2 - 1 Mile WSW
D17	CADWR8000006125	1/2 - 1 Mile WSW
D18	CADWR8000006124	1/2 - 1 Mile WSW
E19	4091	1/2 - 1 Mile SE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

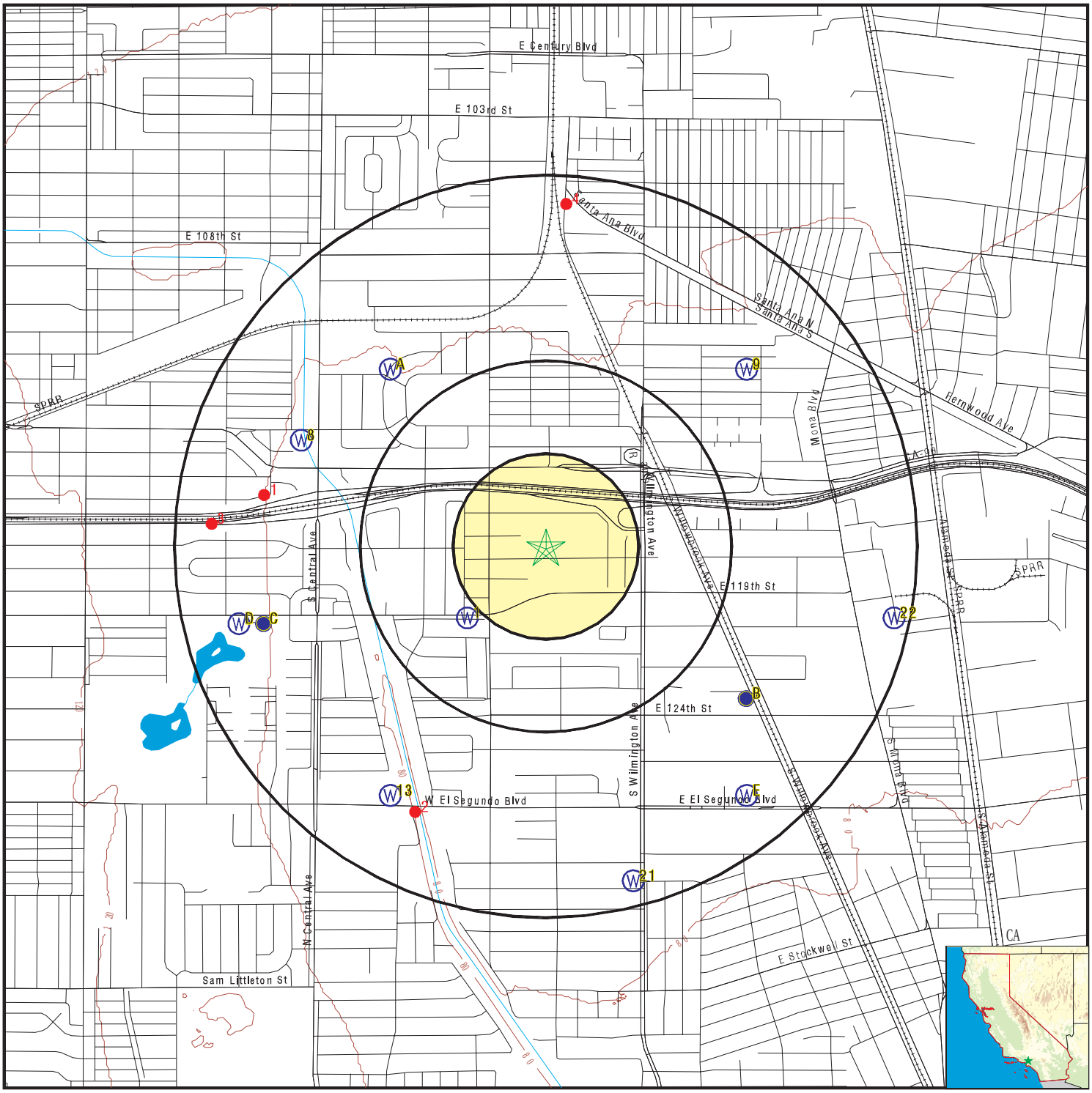
MAP ID	WELL ID	LOCATION FROM TP
E20	4129	1/2 - 1 Mile SE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000005175	1/2 - 1 Mile West
2	CAOG13000005106	1/2 - 1 Mile SSW
3	CAOG13000005209	1/2 - 1 Mile West
4	CAOG13000005924	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 5650258.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Lincoln Elementary School	CLIENT:	Geocon Env. Consultants, Inc.
ADDRESS:	1667 East 118th Street Los Angeles CA 90059	CONTACT:	Dylan Ehrsam
LAT/LONG:	33.926421 / 118.243615	INQUIRY #:	5650258.2s
		DATE:	May 13, 2019 2:48 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000139051**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W09K001S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	502
Well Depth Units:	ft	Well Hole Depth:	519
Well Hole Depth Units:	ft		

A2
NW
1/2 - 1 Mile
Higher

CA WELLS **4085**

Seq:	4085	Prim sta c:	03S/13W-04N01 S
Frds no:	1910155005	County:	19
District:	15	User id:	MET
System no:	1910155	Water type:	G
Source nam:	BELHAVEN WELL 03	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335600.0	Longitude:	1181500.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1910155	System nam:	SCWC - SOUTHWEST
Hqname:	SOUTHERN CALIF WATER CO	Address:	17140 S. AVELON BLVD.,STE 100
City:	CARSON	State:	CA
Zip:	90746	Zip ext:	Not Reported
Pop serv:	141449	Connection:	49234
Area serve:	SOUTHWEST		
Sample date:	13-FEB-18	Finding:	0.36
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	29-MAR-17	Finding:	7.8
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	1.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	0.11

Chemical:	BROMIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	0.12
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	29-MAR-17	Finding:	5200.
Chemical:	CARBON DIOXIDE	Report units:	UG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	0.93
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	340.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	0.41
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	23.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	29-MAR-17	Finding:	3.
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	29-MAR-17	Finding:	0.41
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	29-MAR-17	Finding:	75.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	29-MAR-17	Finding:	22.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	3.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	43.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	12.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	210.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	29-MAR-17	Finding:	210.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	550.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAR-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-MAY-16	Finding:	0.37
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	13-MAY-14	Finding:	21.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	570.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	0.77
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	350.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	22.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	13-MAY-14	Finding:	2.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	13-MAY-14	Finding:	0.36
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	13-MAY-14	Finding:	71.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	13-MAY-14	Finding:	3.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	43.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	13-MAY-14	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	54.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	220.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	180.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	8.03
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-MAR-14	Finding:	0.26
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	25-FEB-13	Finding:	0.35
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

A3
NW
1/2 - 1 Mile
Higher

CA WELLS 4086

Seq:	4086	Prim sta c:	03S/13W-04N03 S
Frds no:	1910155004	County:	19
District:	15	User id:	MET
System no:	1910155	Water type:	G
Source nam:	BELHAVEN WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335600.0	Longitude:	1181500.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1910155	System nam:	SCWC - SOUTHWEST
Hqname:	SOUTHERN CALIF WATER CO	Address:	17140 S. AVELON BLVD.,STE 100
City:	CARSON	State:	CA
Zip:	90746	Zip ext:	Not Reported
Pop serv:	141449	Connection:	49234
Area serve:	SOUTHWEST		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

A4
NW
1/2 - 1 Mile
Higher

CA WELLS 4089

Seq:	4089	Prim sta c:	03S/13W-08C04 S
Frds no:	1910067025	County:	19
District:	15	User id:	MET
System no:	1910067	Water type:	G
Source nam:	DEL MAR WELL 02 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335600.0	Longitude:	1181500.0
Precision:	8	Status:	IR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910067	System nam:	LOS ANGELES-CITY, DEPT. OF WATER & POWE
Hqname:	LOS ANGELES CTY DPT WTR & PWR	Address:	P.O. BOX 51111, ROOM 1420
City:	LOS ANGELES	State:	CA
Zip:	90051	Zip ext:	Not Reported
Pop serv:	3700000	Connection:	657422
Area serve:	LOS ANGELES		

B5
SE
1/2 - 1 Mile
Lower

CA WELLS 4097

Seq:	4097	Prim sta c:	03S/13W-10L03 S
Frds no:	1910072003	County:	19
District:	15	User id:	MET
System no:	1910072	Water type:	G
Source nam:	WELL 03	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	335515.0	Longitude:	1181400.0
Precision:	3	Status:	AR
Comment 1:	12315 WILLOWBROOK AVE, COMPTON, CA	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910072	System nam:	SCWC - WILLOWBROOK
Hqname:	LOS ANGELES CO WW DIST 10	Address:	P. O. BOX 1460
City:	ALHAMBRA	State:	CA
Zip:	91803	Zip ext:	Not Reported
Pop serv:	5186	Connection:	1269
Area serve:	WILLOWBROOK		

Sample date:	06-FEB-18	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Sample date:	06-FEB-18	Finding:	1.3
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		

Sample date:	06-FEB-18	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	06-FEB-18	Finding:	2.
Chemical:	ODOR THRESHOLD @ 60 C	Report units:	TON
Dlr:	1.		
Sample date:	06-FEB-18	Finding:	640.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	190.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	220.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	390.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	65.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	42.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	3.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	40.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	06-FEB-18	Finding:	73.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	06-FEB-18	Finding:	0.44
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-FEB-17	Finding:	0.44
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-FEB-16	Finding:	0.42
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L

Dlr:	0.1		
Sample date:	02-FEB-15	Finding:	1.1
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	1.4
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	3.3
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	02-FEB-15	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	0.54
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	360.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	0.38
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-FEB-15	Finding:	34.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	3.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	42.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	64.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	220.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	190.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	02-FEB-15	Finding:	7.86
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	620.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	02-FEB-15	Finding:	62.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-FEB-14	Finding:	0.36
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-APR-13	Finding:	0.39
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-MAR-12	Finding:	76.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-MAR-12	Finding:	34.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	3.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	37.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	220.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	8.12
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	600.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US

Dlr:	0.		
Sample date:	12-MAR-12	Finding:	0.63
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-MAR-12	Finding:	380.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAR-12	Finding:	1.2
Chemical:	MERCURY	Report units:	UG/L
Dlr:	1.		

B6
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139012**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W10L002S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	287
Well Depth Units:	ft	Well Hole Depth:	321
Well Hole Depth Units:	ft		

B7
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139013**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W10L003S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19840502	Well Depth:	352
Well Depth Units:	ft	Well Hole Depth:	440
Well Hole Depth Units:	ft		

8
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000139112**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W04N001S	Type:	Well
Description:	Not Reported	HUC:	18070105

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	909
Well Depth Units:	ft	Well Hole Depth:	909
Well Hole Depth Units:	ft		

9
NE
1/2 - 1 Mile
Higher

CA WELLS **4090**

Seq:	4090	Prim sta c:	03S/13W-09A01 S
Frds no:	1910021009	County:	19
District:	07	User id:	4TH
System no:	1910021	Water type:	G
Source nam:	WELL 19-A - DESTROYED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335600.0	Longitude:	1181400.0
Precision:	8	Status:	DS
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910021	System nam:	PARK WC - COMPTON
Hqname:	PARK WATER CO COMPTON SYSTEM	Address:	PO BOX 7002 (9750 WASHBURN RD)
City:	DOWNEY	State:	CA
Zip:	90241	Zip ext:	Not Reported
Pop serv:	30000	Connection:	6527
Area serve:	COMPTON		

C10
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000139046**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W08J004S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19970805	Well Depth:	220
Well Depth Units:	ft	Well Hole Depth:	1000
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	29	Level reading date:	2002-09-25
Feet below surface:	122.66	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	2002-06-27	Feet below surface:	121.01
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	2002-03-28	Feet below surface:	119.31
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	2002-03-18	Feet below surface:	119.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-12-26	Feet below surface:	118.91
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-09-28	Feet below surface:	121.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-06-19	Feet below surface:	118.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-19	Feet below surface:	117.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-03-28	Feet below surface:	117.07
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-12-28	Feet below surface:	117.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-24	Feet below surface:	118.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-03	Feet below surface:	119.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-09-28	Feet below surface:	120.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-08-02	Feet below surface:	119.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-04-04	Feet below surface:	116.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-01-06	Feet below surface:	116.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-12-17	Feet below surface:	116.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-11-09	Feet below surface:	117.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-10-04	Feet below surface:	119.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-08-31	Feet below surface:	118.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-06-03	Feet below surface:	115.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-01-26	Feet below surface:	114.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-17	Feet below surface:	116.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-08	Feet below surface:	117.52
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1998-04-23	Feet below surface:	112.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-01-07	Feet below surface:	114.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-12-29	Feet below surface:	114.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-30	Feet below surface:	116.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-21	Feet below surface:	116.55
Feet to sea level:	Not Reported	Note:	Not Reported

C11
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000139044**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W08J002S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19970805	Well Depth:	520
Well Depth Units:	ft	Well Hole Depth:	1000
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	29	Level reading date:	2002-09-25
Feet below surface:	129.31	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-06-27	Feet below surface:	126.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-28	Feet below surface:	125.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-18	Feet below surface:	125.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-12-26	Feet below surface:	125.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-09-28	Feet below surface:	126.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-06-19	Feet below surface:	123.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-19	Feet below surface:	122.23
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-03-28	Feet below surface:	122.60
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	2000-12-28	Feet below surface:	123.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-24	Feet below surface:	123.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-03	Feet below surface:	125.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-09-28	Feet below surface:	126.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-08-02	Feet below surface:	125.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-04-04	Feet below surface:	122.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-01-06	Feet below surface:	123.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-12-17	Feet below surface:	123.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-11-09	Feet below surface:	124.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-10-04	Feet below surface:	126.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-08-31	Feet below surface:	125.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-06-03	Feet below surface:	122.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-01-26	Feet below surface:	122.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-17	Feet below surface:	125.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-08	Feet below surface:	137.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-04-23	Feet below surface:	121.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-01-06	Feet below surface:	123.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-12-30	Feet below surface:	123.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-30	Feet below surface:	126.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-21	Feet below surface:	125.70
Feet to sea level:	Not Reported	Note:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C12
WSW
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000139043**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W08J001S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19970805	Well Depth:	905
Well Depth Units:	ft	Well Hole Depth:	1000
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	29	Level reading date:	2002-09-25
Feet below surface:	137.74	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	2002-06-27	Feet below surface:	129.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-28	Feet below surface:	123.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-18	Feet below surface:	124.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-12-26	Feet below surface:	127.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-09-28	Feet below surface:	135.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-06-19	Feet below surface:	124.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-19	Feet below surface:	119.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-03-28	Feet below surface:	119.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-12-28	Feet below surface:	123.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-24	Feet below surface:	124.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-03	Feet below surface:	128.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-09-28	Feet below surface:	131.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-08-02	Feet below surface:	131.50
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	2000-04-04	Feet below surface:	119.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-01-06	Feet below surface:	126.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-12-17	Feet below surface:	126.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-11-09	Feet below surface:	130.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-10-04	Feet below surface:	134.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-08-31	Feet below surface:	132.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-06-03	Feet below surface:	121.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-01-26	Feet below surface:	127.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-17	Feet below surface:	136.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-08	Feet below surface:	137.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-04-23	Feet below surface:	113.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-01-07	Feet below surface:	121.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-01-05	Feet below surface:	121.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-12-30	Feet below surface:	122.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-21	Feet below surface:	122.17
Feet to sea level:	Not Reported	Note:	Not Reported

13
SSW
1/2 - 1 Mile
Lower

CA WELLS 4130

Seq:	4130	Prim sta c:	03S/13W-16E01 S
Frds no:	1910026008	County:	19
District:	07	User id:	4TH
System no:	1910026	Water type:	G
Source nam:	WELL 10	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335500.0	Longitude:	1181500.0
Precision:	8	Status:	IR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910026	System nam:	COMPTON-CITY, WATER DEPT.
Hqname:	Not Reported	Address:	205 S WILLOWBROOK AVE
City:	COMPTON	State:	CA
Zip:	90220	Zip ext:	Not Reported
Pop serv:	81000	Connection:	13459
Area serve:	COMPTON CITY		

C14
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000006123**

State Well #:	03S13W08J001S	Station ID:	46604
Well Name:	Willowbrook1_1	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	905	Basin Name:	Central
Well Completion Rpt #:	767076		

C15
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000139045**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W08J003S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19970805	Well Depth:	380
Well Depth Units:	ft	Well Hole Depth:	1000
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	29	Level reading date:	2002-09-25
Feet below surface:	123.10	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-06-27	Feet below surface:	121.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-28	Feet below surface:	119.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-18	Feet below surface:	119.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-12-26	Feet below surface:	119.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-09-28	Feet below surface:	121.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-06-19	Feet below surface:	118.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-19	Feet below surface:	117.55

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-03-28	Feet below surface:	117.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-12-28	Feet below surface:	117.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-24	Feet below surface:	118.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-11-03	Feet below surface:	119.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-09-28	Feet below surface:	120.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-08-02	Feet below surface:	119.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-04-04	Feet below surface:	116.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-01-06	Feet below surface:	116.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-12-17	Feet below surface:	116.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-11-09	Feet below surface:	117.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-10-04	Feet below surface:	119.59
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-08-31	Feet below surface:	119.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-06-03	Feet below surface:	115.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-01-26	Feet below surface:	114.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-17	Feet below surface:	117.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-10-08	Feet below surface:	117.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-04-23	Feet below surface:	112.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-01-08	Feet below surface:	114.38
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-12-30	Feet below surface:	114.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-30	Feet below surface:	117.26
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1997-10-21	Feet below surface:	118.71
Feet to sea level:	Not Reported	Note:	Not Reported

D16
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000006126**

State Well #:	03S13W08J003S	Station ID:	4619
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Central	Well Completion Rpt #:	Not Reported

D17
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000006125**

State Well #:	03S13W08J004S	Station ID:	4620
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Central	Well Completion Rpt #:	Not Reported

D18
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000006124**

State Well #:	03S13W08J002S	Station ID:	27549
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Central	Well Completion Rpt #:	Not Reported

E19
SE
1/2 - 1 Mile
Lower

CA WELLS **4091**

Seq:	4091	Prim sta c:	03S/13W-09K01 S
Frds no:	1910021008	County:	19
District:	07	User id:	4TH
System no:	1910021	Water type:	G
Source nam:	WELL 18-A - DESTROYED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335500.0	Longitude:	1181400.0
Precision:	8	Status:	DS
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910021	System nam:	PARK WC - COMPTON
Hqname:	PARK WATER CO COMPTON SYSTEM	Address:	PO BOX 7002 (9750 WASHBURN RD)
City:	DOWNEY	State:	CA
Zip:	90241	Zip ext:	Not Reported
Pop serv:	30000	Connection:	6527

Area serve: COMPTON

E20
SE **CA WELLS** **4129**
1/2 - 1 Mile
Lower

Seq:	4129	Prim sta c:	03S/13W-16A01 S
Frds no:	1910021003	County:	19
District:	07	User id:	4TH
System no:	1910021	Water type:	G
Source nam:	WELL 12-A - DESTROYED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335500.0	Longitude:	1181400.0
Precision:	8	Status:	DS
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1910021	System nam:	PARK WC - COMPTON
Hqname:	PARK WATER CO COMPTON SYSTEM	Address:	PO BOX 7002 (9750 WASHBURN RD)
City:	DOWNEY	State:	CA
Zip:	90241	Zip ext:	Not Reported
Pop serv:	30000	Connection:	6527
Area serve:	COMPTON		

21
SSE **FED USGS** **USGS40000138964**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W16A001S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	244
Well Depth Units:	ft	Well Hole Depth:	251
Well Hole Depth Units:	ft		

22
ESE **FED USGS** **USGS40000139050**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S013W10K001S	Type:	Well
Description:	Not Reported	HUC:	18070105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	950
Well Depth Units:	ft	Well Hole Depth:	1010

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Hole Depth Units: ft

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
West
1/2 - 1 Mile

OIL_GAS **CAOG13000005175**

API #:	0403705351	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Wm Diller	Lease Name:	Lease by Wm Diller
Field Name:	Any Field	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	Not Reported

2
SSW
1/2 - 1 Mile

OIL_GAS **CAOG13000005106**

API #:	0403705247	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Calizoo Oil Co.	Lease Name:	Saulque
Field Name:	Any Field	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	Not Reported

3
West
1/2 - 1 Mile

OIL_GAS **CAOG13000005209**

API #:	0403705405	Well #:	1
Well Status:	Idle	Well Type:	OG
Operator Name:	Don L. Francis	Lease Name:	Lease by Don L. Francis
Field Name:	Any Field	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	Not Reported

4
North
1/2 - 1 Mile

OIL_GAS **CAOG13000005924**

API #:	0403721520	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	American Petrofina Expl. Co.		
Lease Name:	Central C.H.	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90059	7	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D

Lincoln Elementary School

1667 East 118th Street

Los Angeles, CA 90059

Inquiry Number: 5650258.8

May 14, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/14/19

Site Name:

Lincoln Elementary School
1667 East 118th Street
Los Angeles, CA 90059
EDR Inquiry # 5650258.8

Client Name:

Geocon Env. Consultants, Inc.
6960 Flanders Drive
San Diego, CA 92121-0000
Contact: Dylan Ehrsam

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Flight Date: June 10, 2002	USDA
1994	1"=500'	Acquisition Date: May 31, 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August 22, 1989	USDA
1981	1"=500'	Flight Date: February 21, 1981	EDR Proprietary Brewster Pacific
1977	1"=500'	Flight Date: January 18, 1977	EDR Proprietary Brewster Pacific
1972	1"=500'	Flight Date: October 30, 1972	EDR Proprietary Brewster Pacific
1963	1"=500'	Flight Date: February 28, 1963	USGS
1952	1"=500'	Flight Date: April 12, 1952	USDA
1947	1"=500'	Flight Date: June 18, 1947	FAIR
1938	1"=500'	Flight Date: February 07, 1938	USDA
1928	1"=500'	Flight Date: January 01, 1928	FAIR
1923	1"=500'	Flight Date: January 01, 1923	FAIR

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INQUIRY #: 5650258.8
YEAR: 2016
= 500'
N
EDR



INQUIRY #: 5650258.8

YEAR: 2012

= 500'

N

EDR



INQUIRY #: 5650258.8

YEAR: 2009

= 500'

N

EDR


INQUIRY #: 5650258.8
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 5650258.8
YEAR: 2002
= 500'
N
EDR



INQUIRY #: 5650258.8

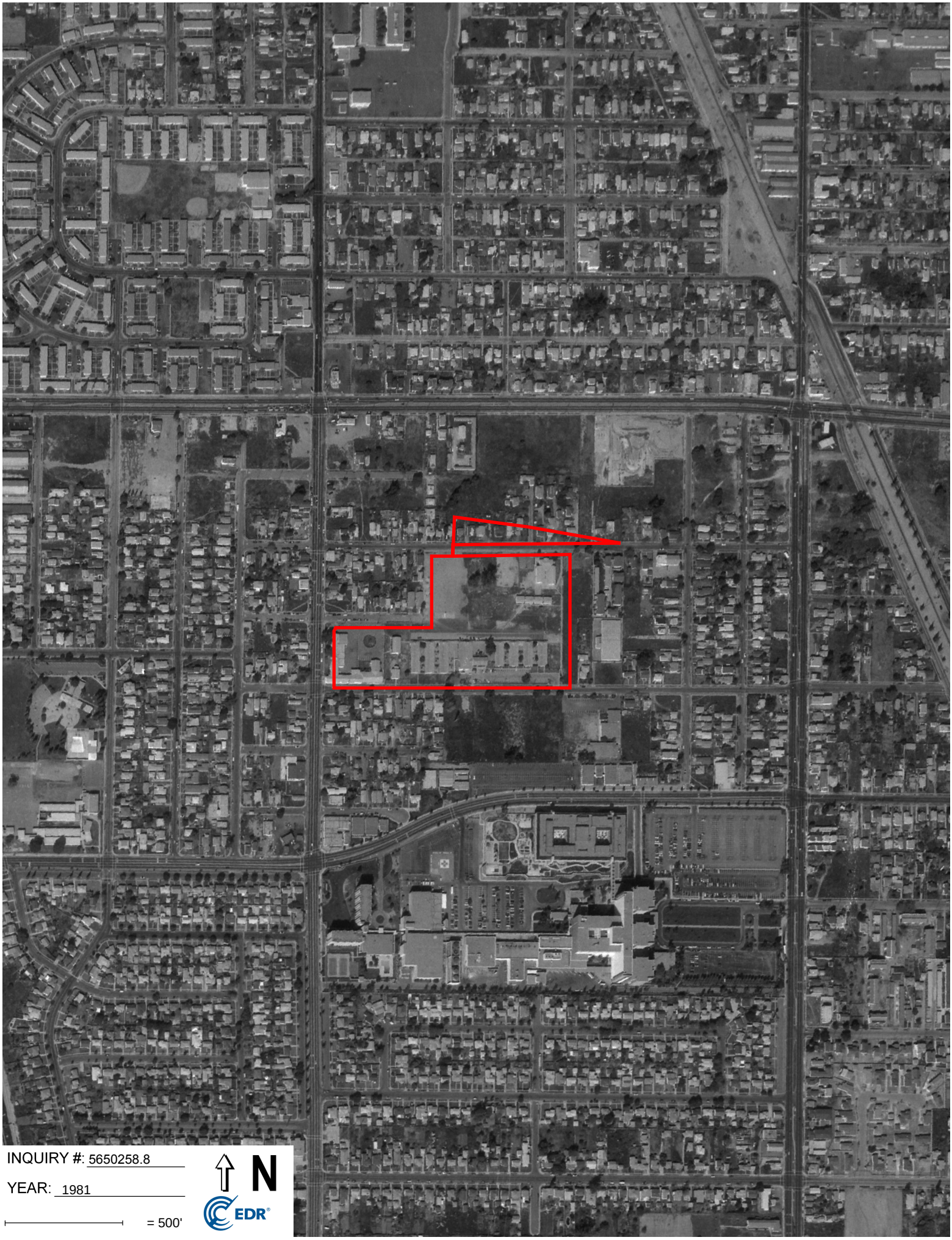
YEAR: 1994

= 500'

N

EDR


INQUIRY #: 5650258.8
YEAR: 1989
= 500'
N
EDR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YEAR: 1981
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EDR


INQUIRY #: 5650258.8
YEAR: 1977
= 500'
N
EDR


INQUIRY #: 5650258.8
YEAR: 1972
= 500'
N
EDR



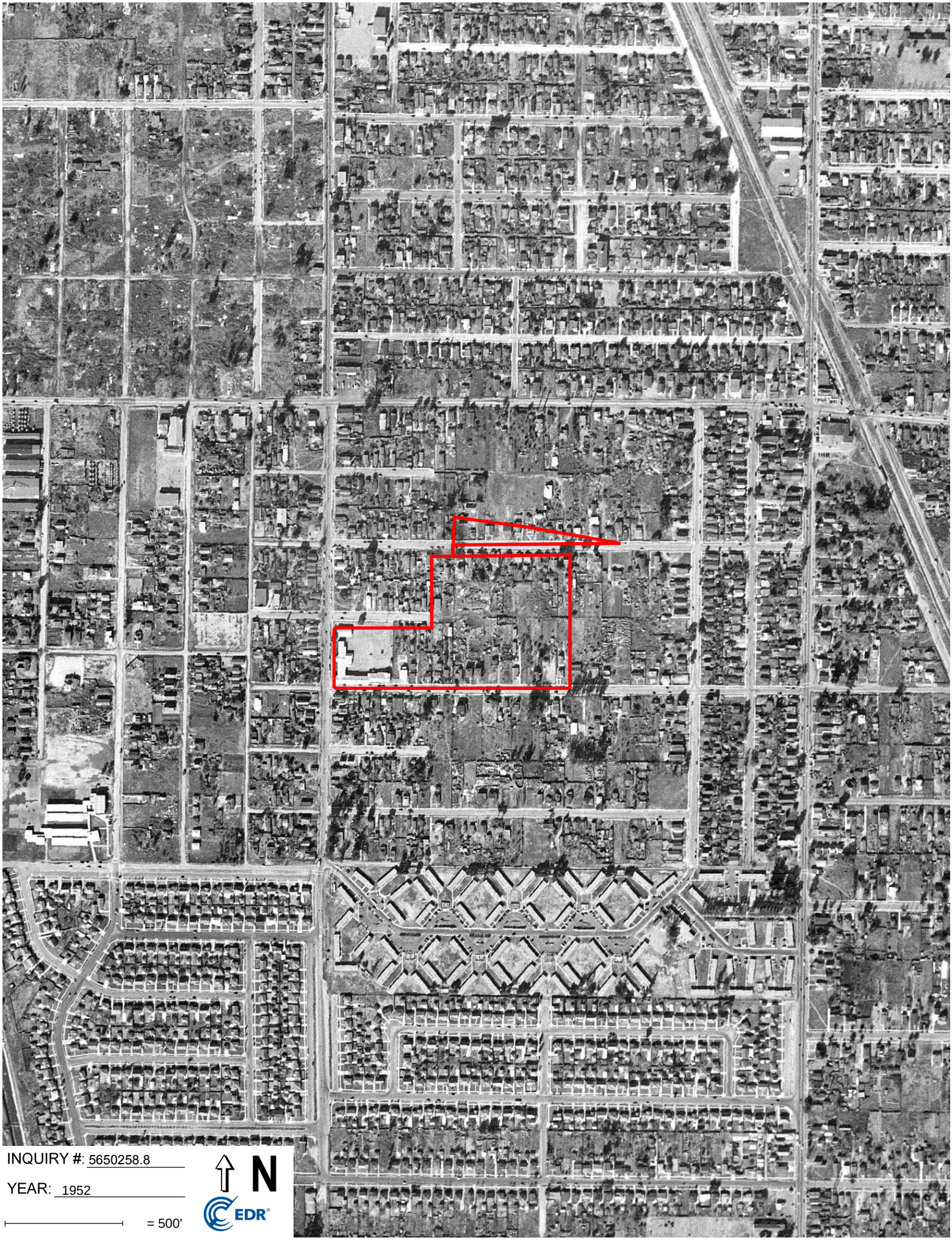
INQUIRY #: 5650258.8

YEAR: 1963

= 500'

N

EDR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YEAR: 1952
= 500'
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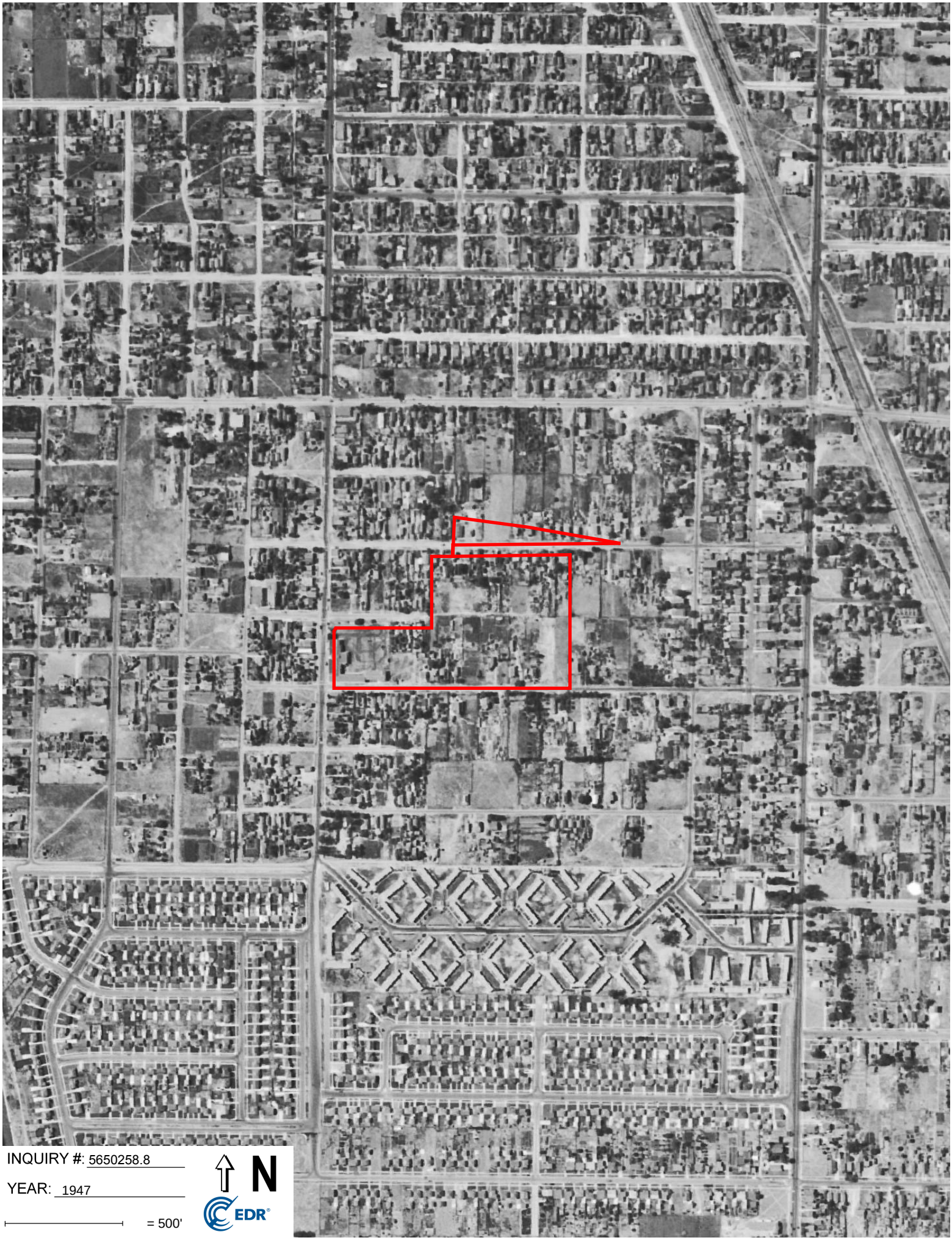
EDR


INQUIRY #: 5650258.8
YEAR: 1947
= 500'
N
EDR


INQUIRY #: 5650258.8
YEAR: 1938
= 500'
N
EDR



INQUIRY #: 5650258.8

YEAR: 1928

= 500'

N

EDR


INQUIRY #: 5650258.8
YEAR: 1923
= 500'
N
EDR

APPENDIX E

Lincoln Elementary School
1667 East 118th Street
Los Angeles, CA 90059

Inquiry Number: 5650258.4
May 13, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

05/13/19

Site Name:

Lincoln Elementary School
1667 East 118th Street
Los Angeles, CA 90059
EDR Inquiry # 5650258.4

Client Name:

Geocon Env. Consultants, Inc.
6960 Flanders Drive
San Diego, CA 92121-0000
Contact: Dylan Ehrsam

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Geocon Env. Consultants, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: A9464-77-07

Coordinates:

Latitude:	33.926421 33° 55' 35" North
Longitude:	-118.243615 -118° 14' 37" West
UTM Zone:	Zone 11 North
UTM X Meters:	385052.49
UTM Y Meters:	3754694.05
Elevation:	92.00' above sea level

Maps Provided:

2012	1942
1981	1937
1972	1924
1964	1923
1952	1902
1949, 1950	1899
1947, 1948	1896
1943	

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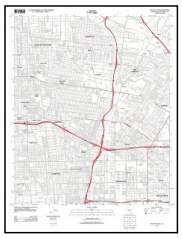
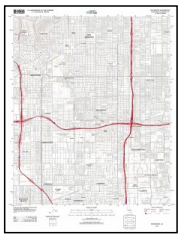
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



South Gate
2012
7.5-minute, 24000

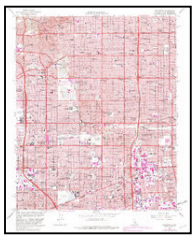


Inglewood
2012
7.5-minute, 24000

1981 Source Sheets



South Gate
1981
7.5-minute, 24000
Aerial Photo Revised 1978



Inglewood
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1972 Source Sheets



South Gate
1972
7.5-minute, 24000
Aerial Photo Revised 1972



Inglewood
1972
7.5-minute, 24000
Aerial Photo Revised 1972

1964 Source Sheets



South Gate
1964
7.5-minute, 24000
Aerial Photo Revised 1963



Inglewood
1964
7.5-minute, 24000
Aerial Photo Revised 1963

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1952 Source Sheets



SOUTH GATE
1952
7.5-minute, 24000



Inglewood
1952
7.5-minute, 24000
Aerial Photo Revised 1947

1949, 1950 Source Sheets

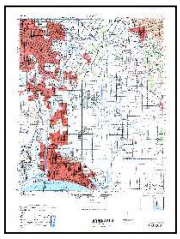


South Gate
1949
7.5-minute, 24000
Aerial Photo Revised 1947



Inglewood
1950
7.5-minute, 24000
Aerial Photo Revised 1947

1947, 1948 Source Sheets

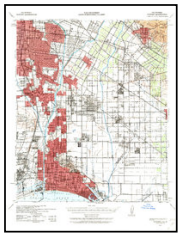


DOWNEY
1947
15-minute, 50000



REDONDO
1948
15-minute, 50000

1943 Source Sheets



Downey
1943
15-minute, 62500
Aerial Photo Revised 1939

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets



Downey
1942
15-minute, 62500

1937 Source Sheets



Watts
1937
7.5-minute, 24000

1924 Source Sheets



Watts
1924
7.5-minute, 24000

1923 Source Sheets



Watts
1923
7.5-minute, 24000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1902 Source Sheets



Downey
1902
15-minute, 62500

1899 Source Sheets



Downey
1899
15-minute, 62500

1896 Source Sheets



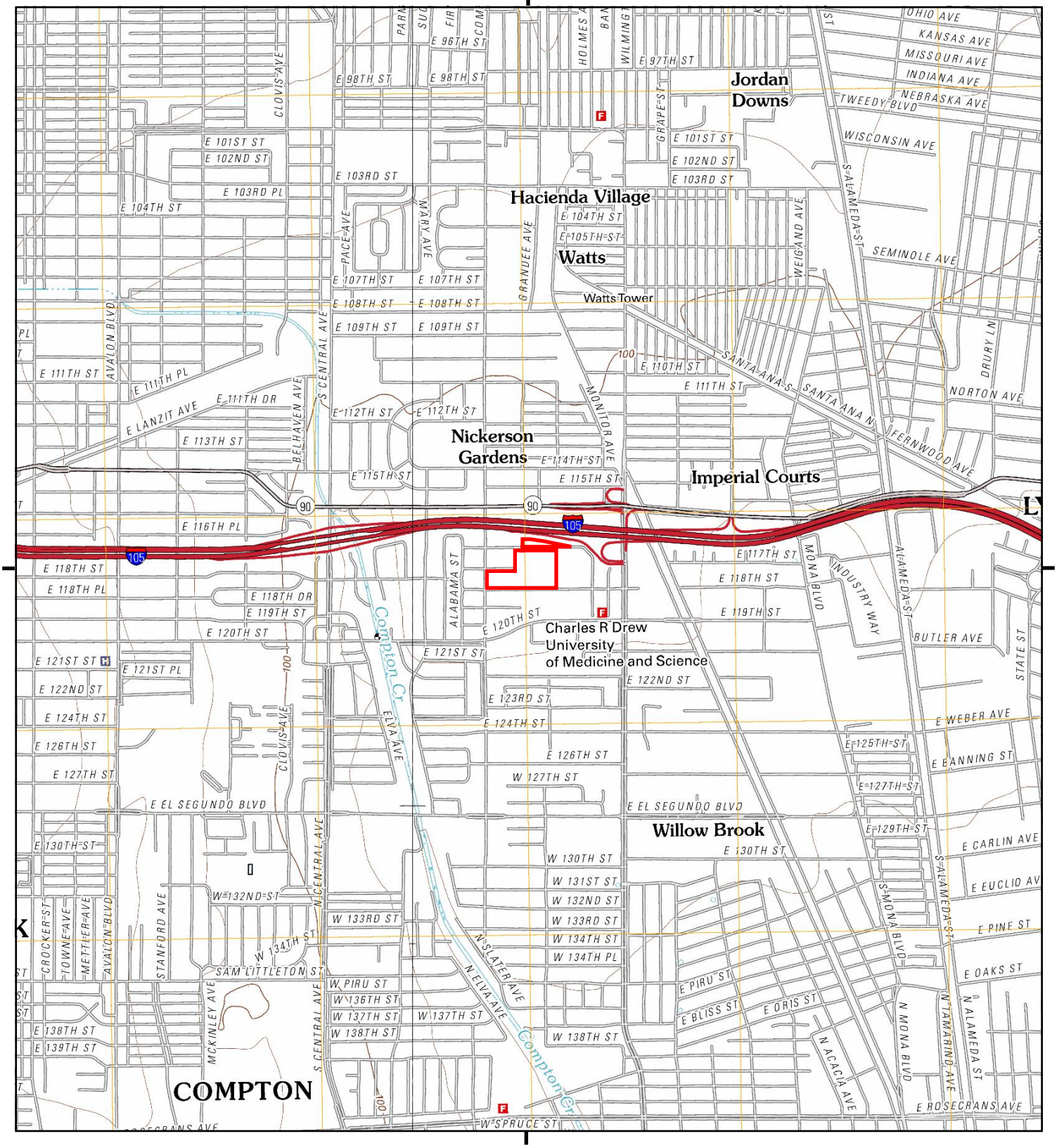
Downey
1896
15-minute, 62500



Redondo
1896
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

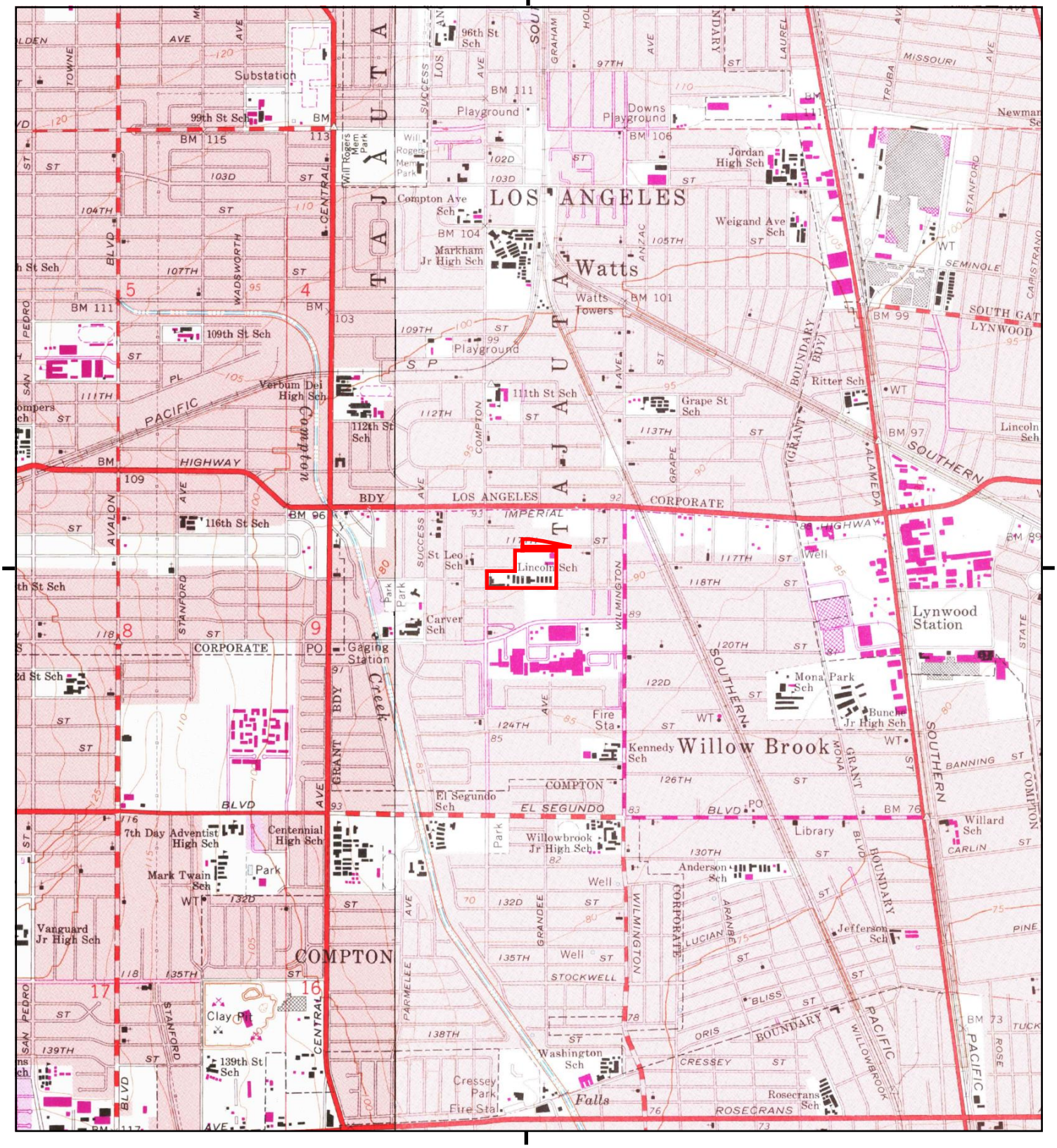
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, South Gate, 2012, 7.5-minute
W, Inglewood, 2012, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



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NW N NE
W E
SW S SE

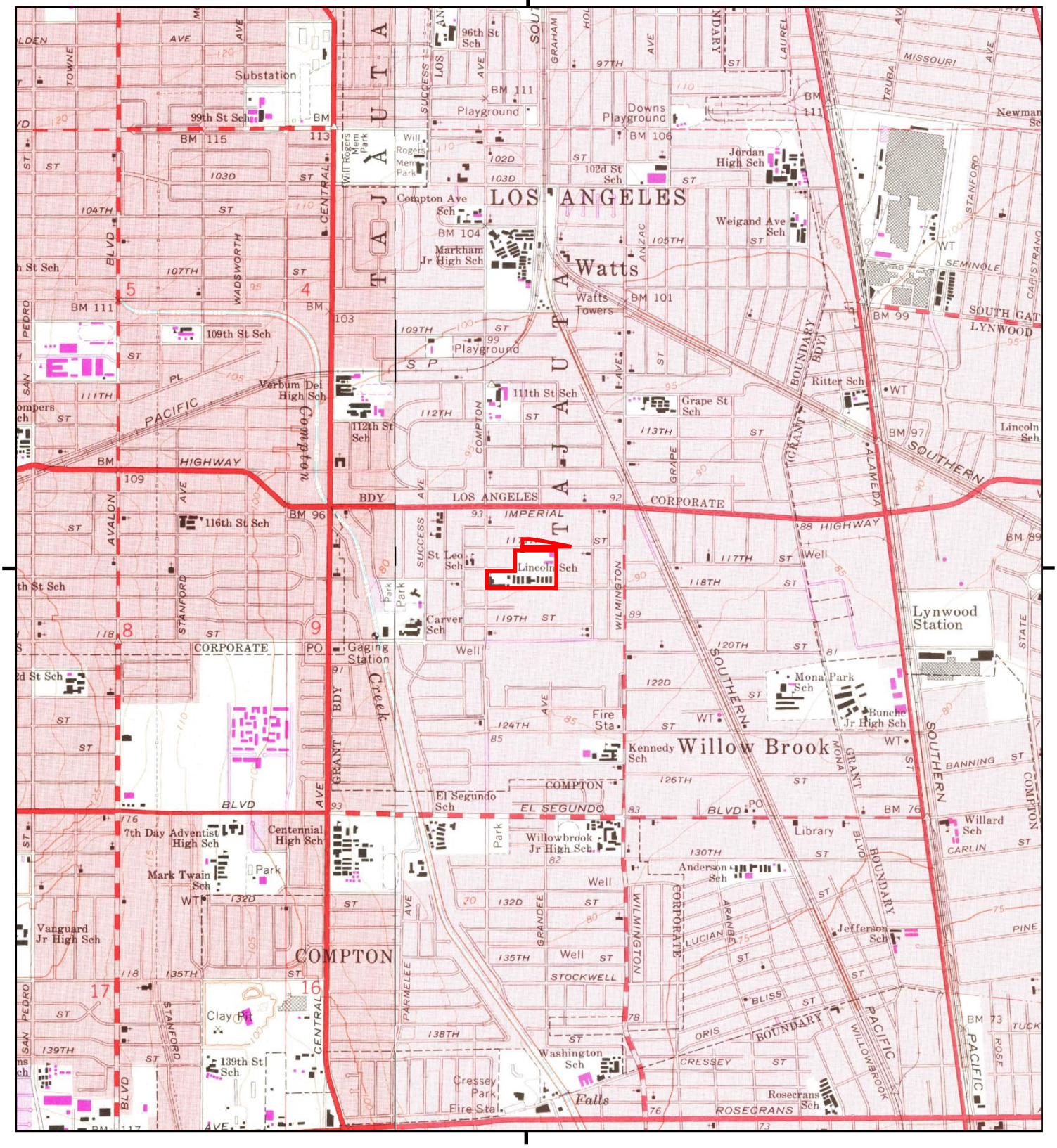
TP, South Gate, 1981, 7.5-minute
W, Inglewood, 1981, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N

Historical Topo Map

1972



This report includes information from the following map sheet(s).

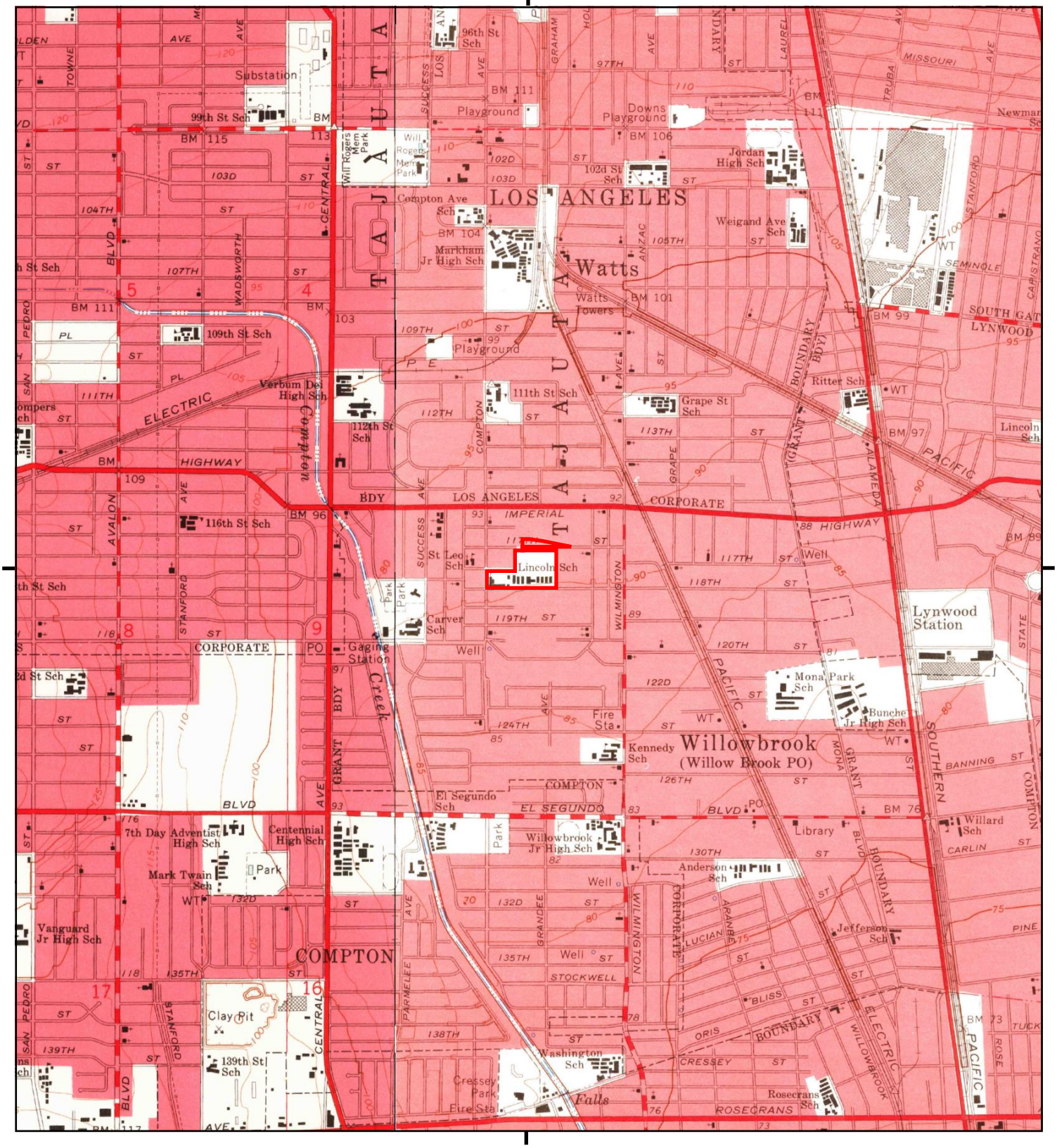
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, South Gate, 1972, 7.5-minute
W, Inglewood, 1972, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

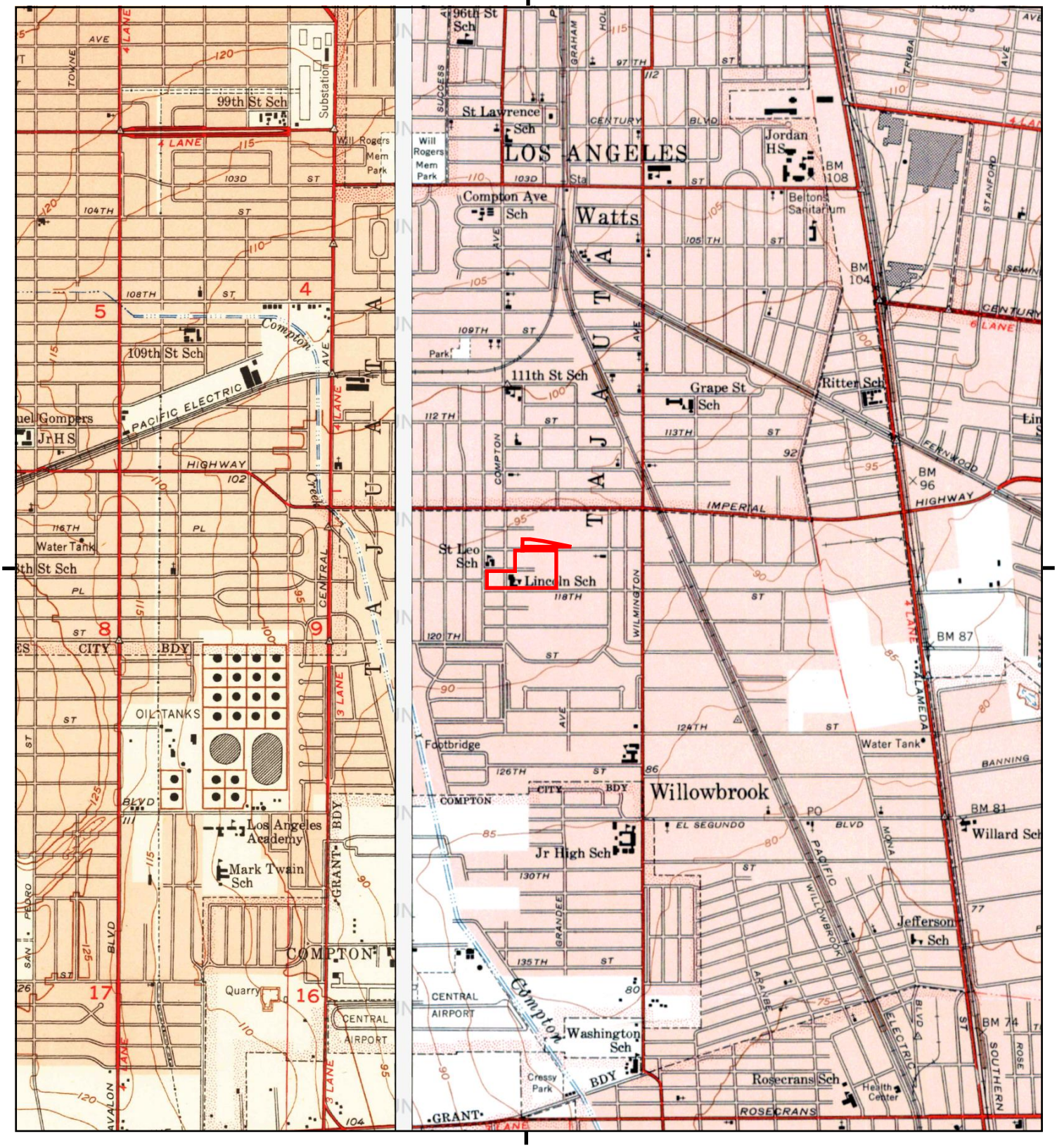
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, South Gate, 1964, 7.5-minute
W, Inglewood, 1964, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

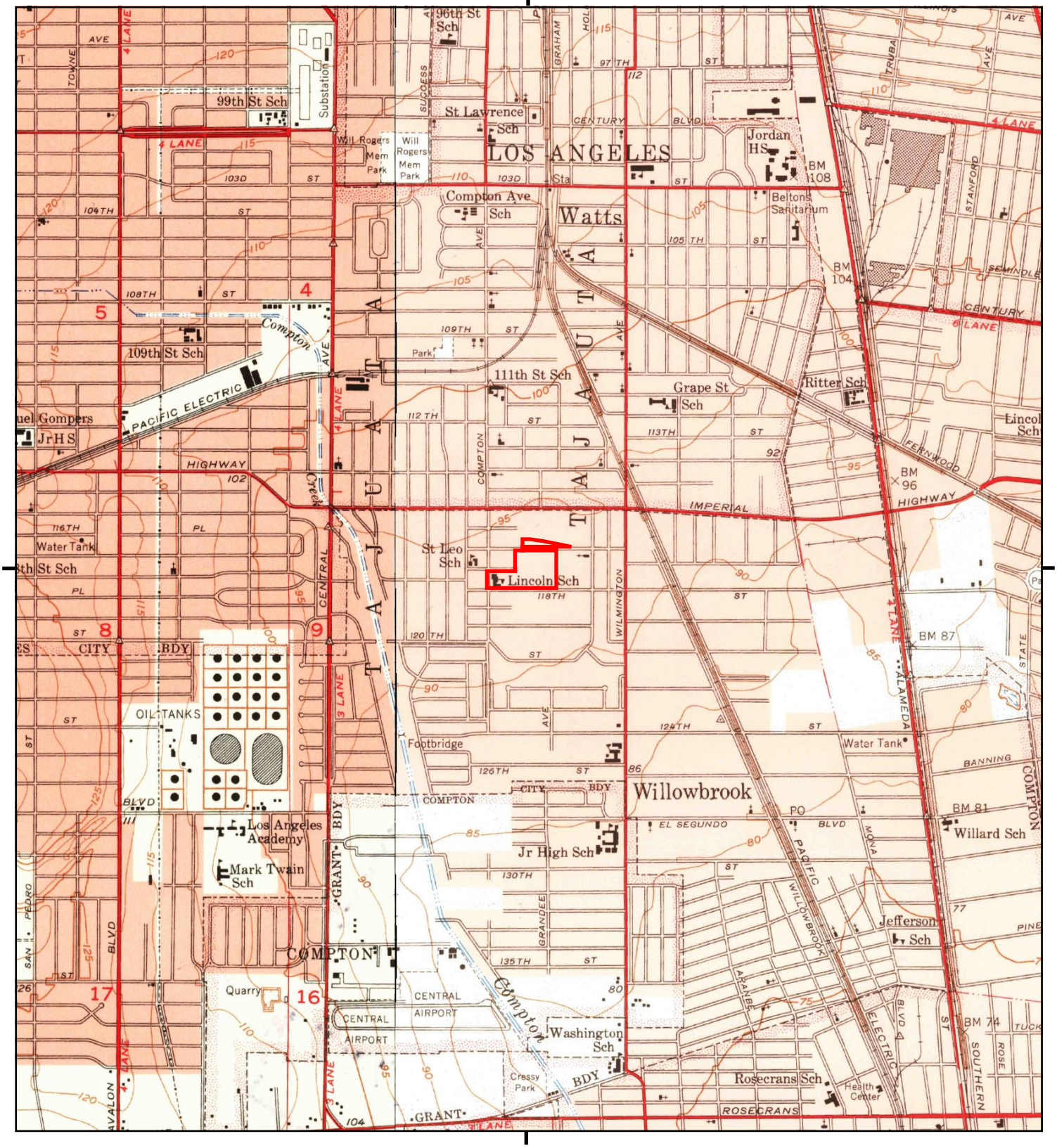
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, SOUTH GATE, 1952, 7.5-minute
W, Inglewood, 1952, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



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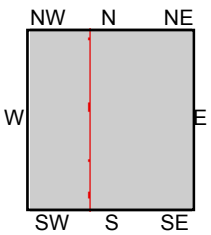
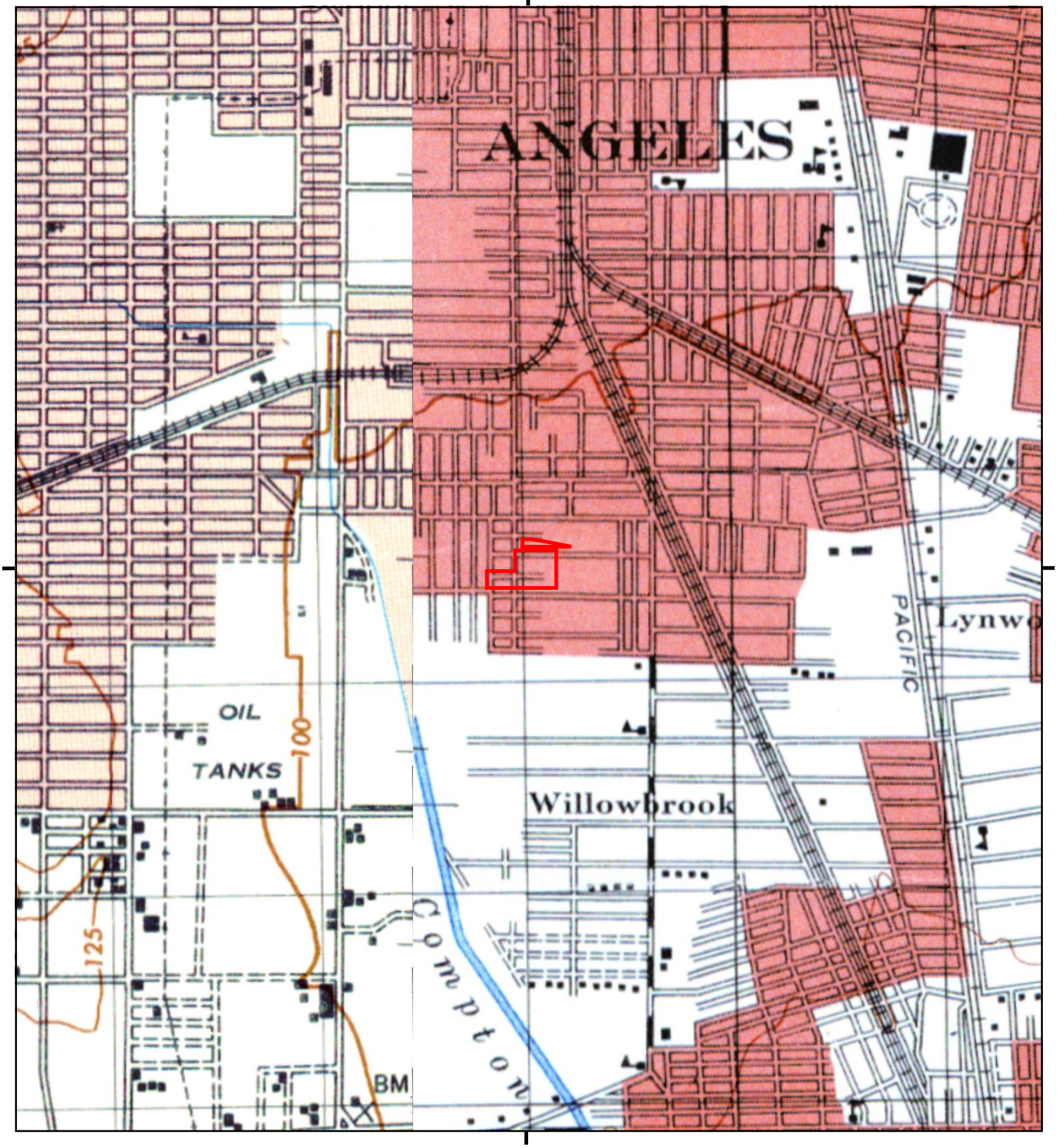


TP, South Gate, 1949, 7.5-minute
W, Inglewood, 1950, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

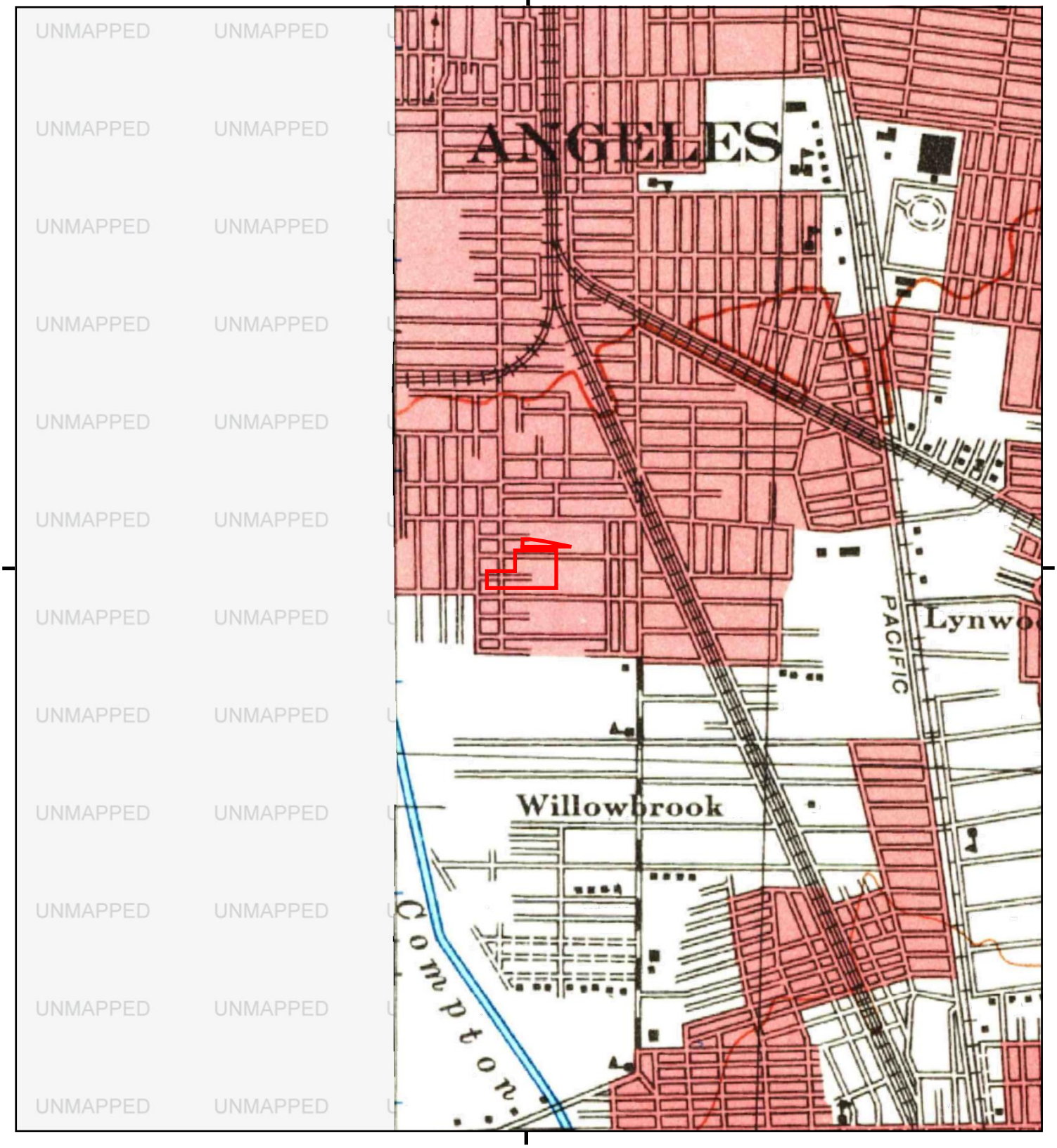
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, DOWNEY, 1947, 15-minute
SW, REDONDO, 1948, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

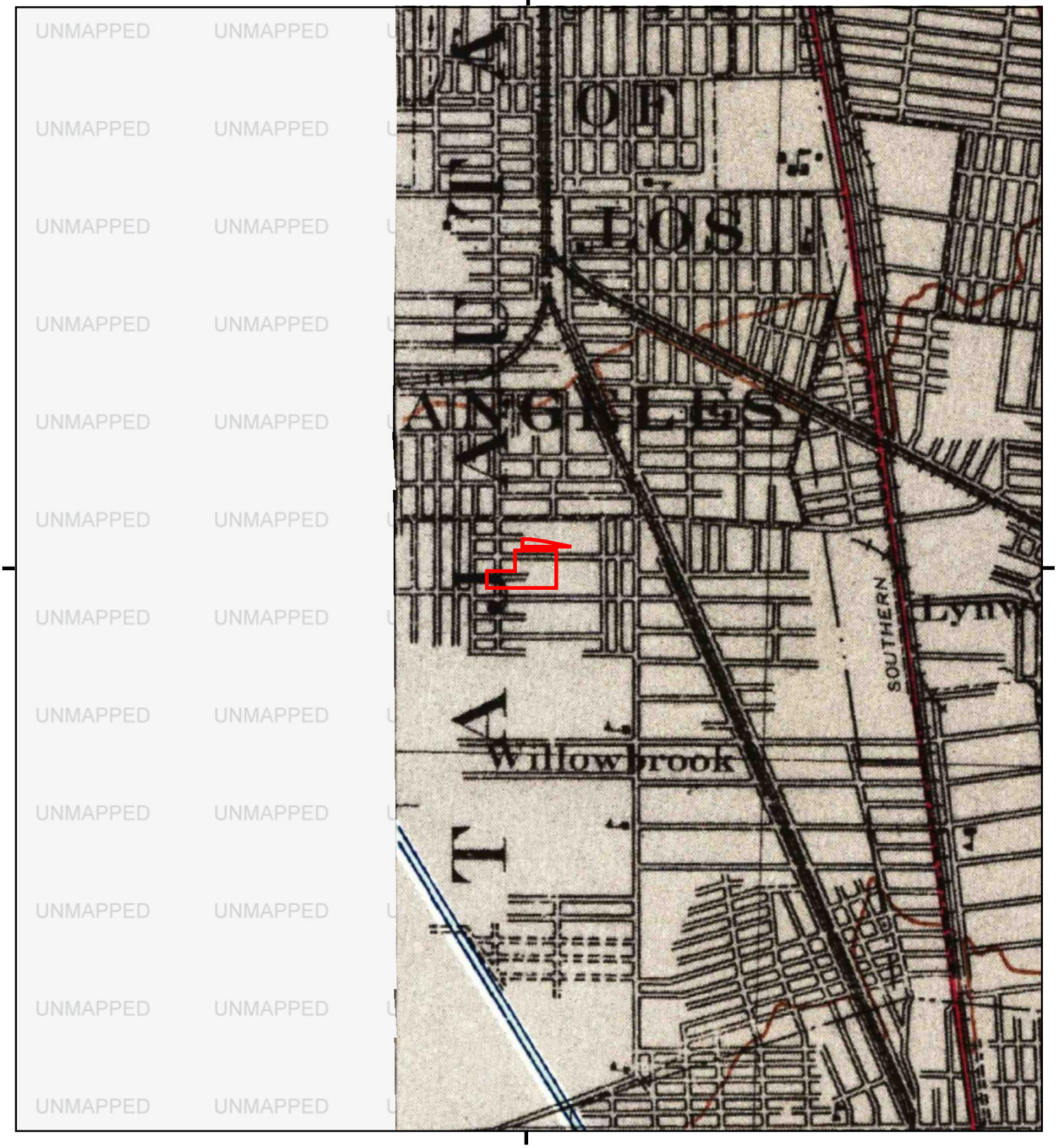
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Downey, 1943, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

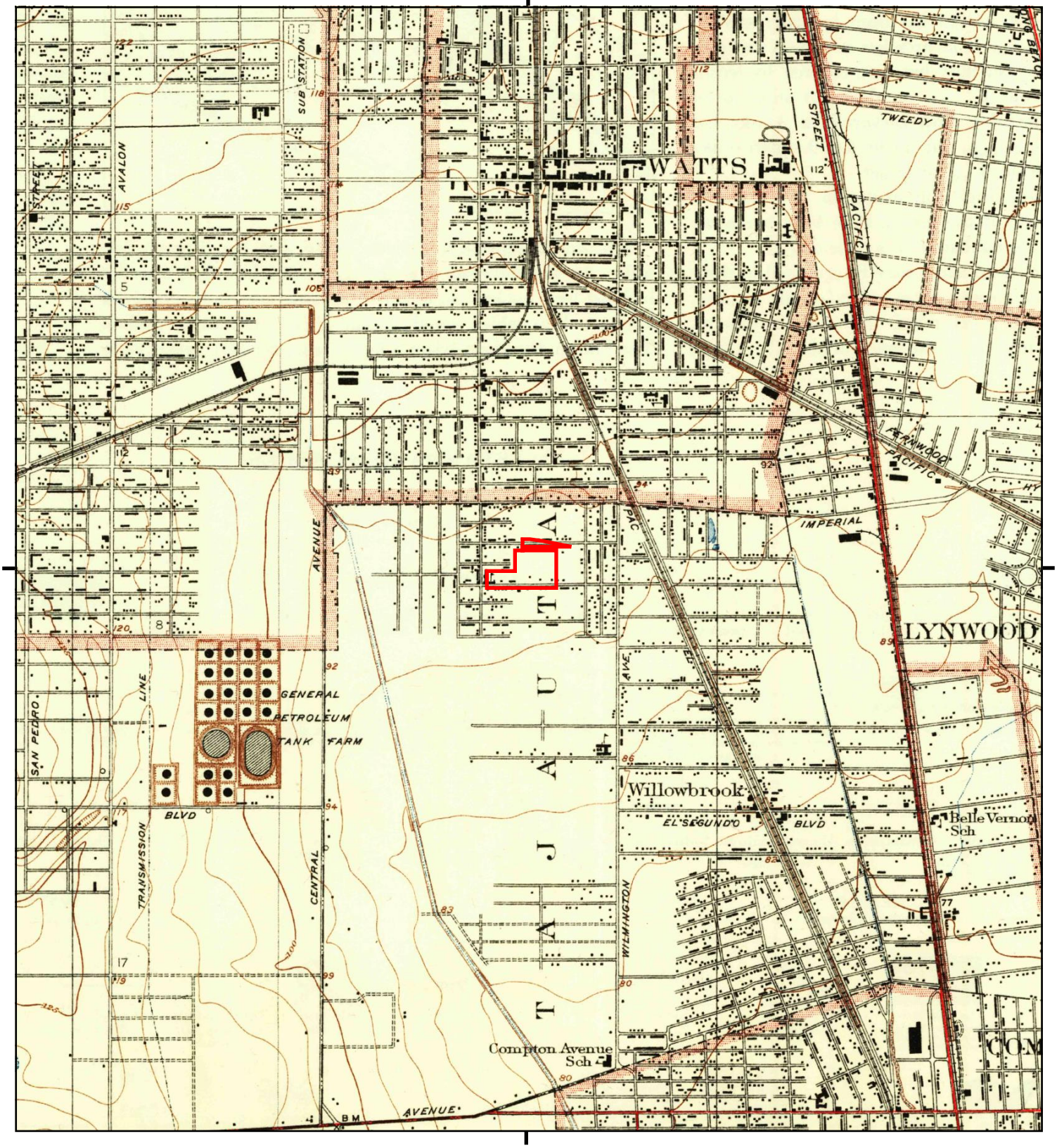
TP, Downey, 1942, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N

Historical Topo Map

1937



This report includes information from the following map sheet(s).

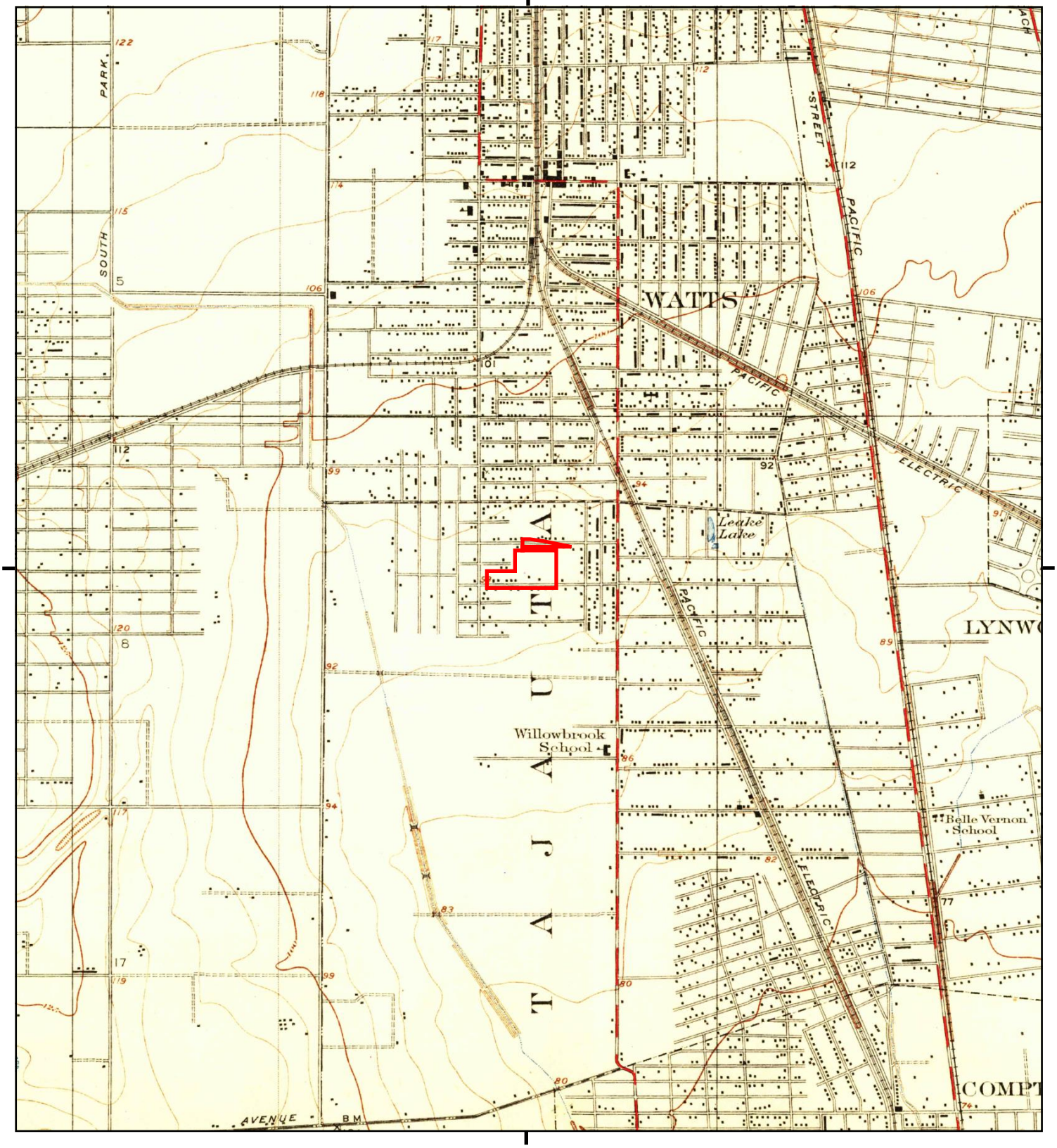
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Watts, 1937, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

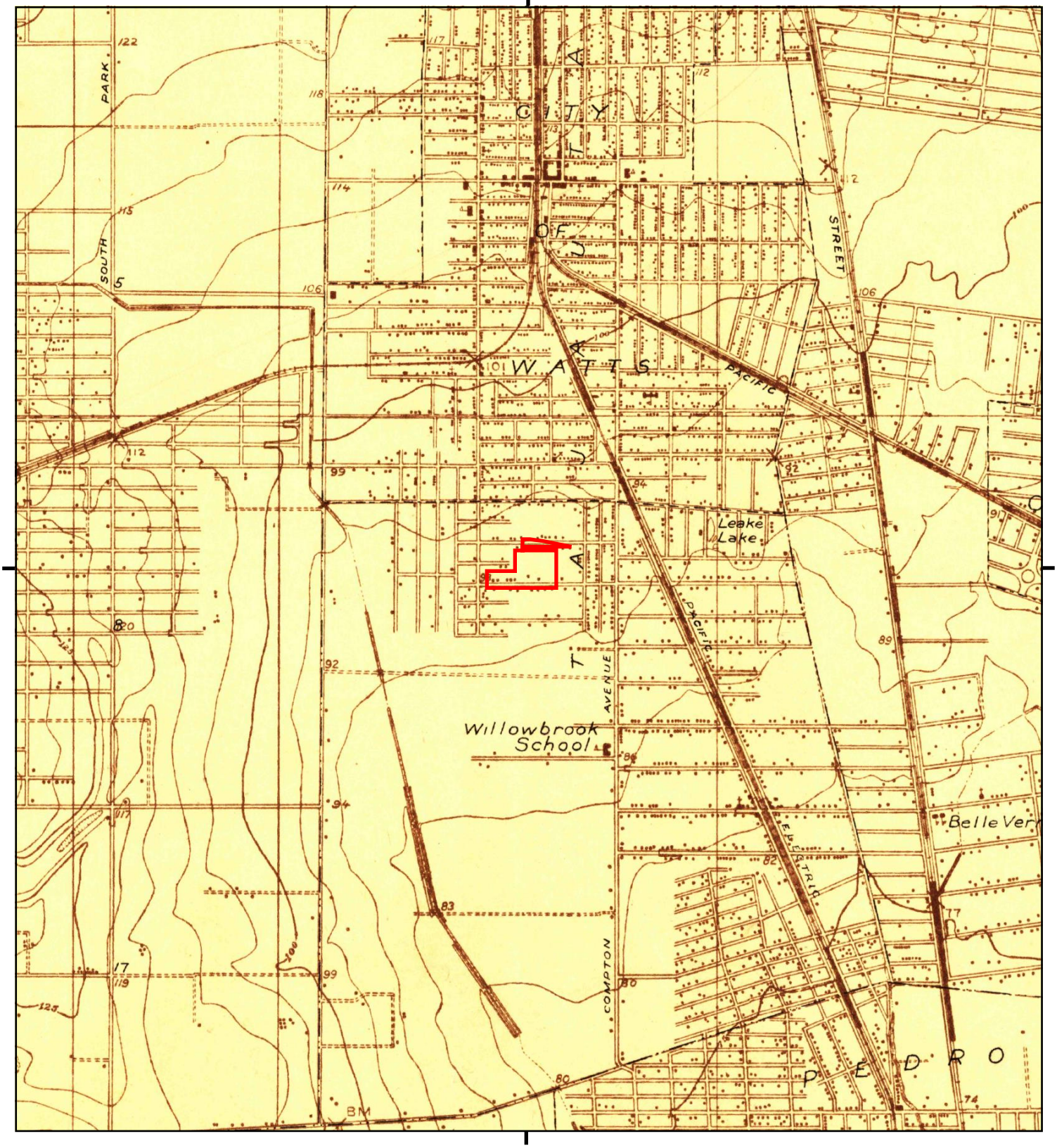
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Watts, 1924, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

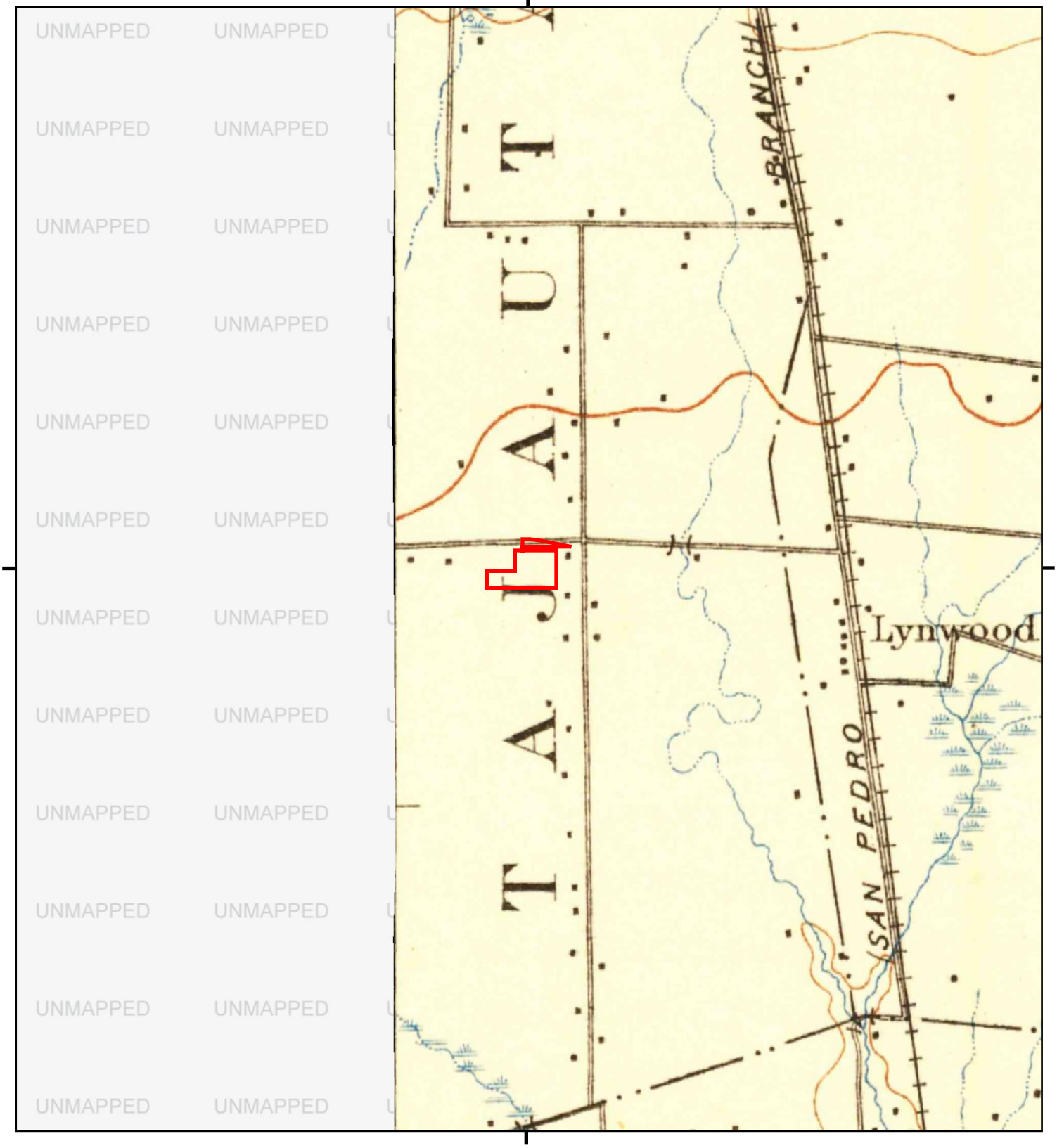
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Watts, 1923, 7.5-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

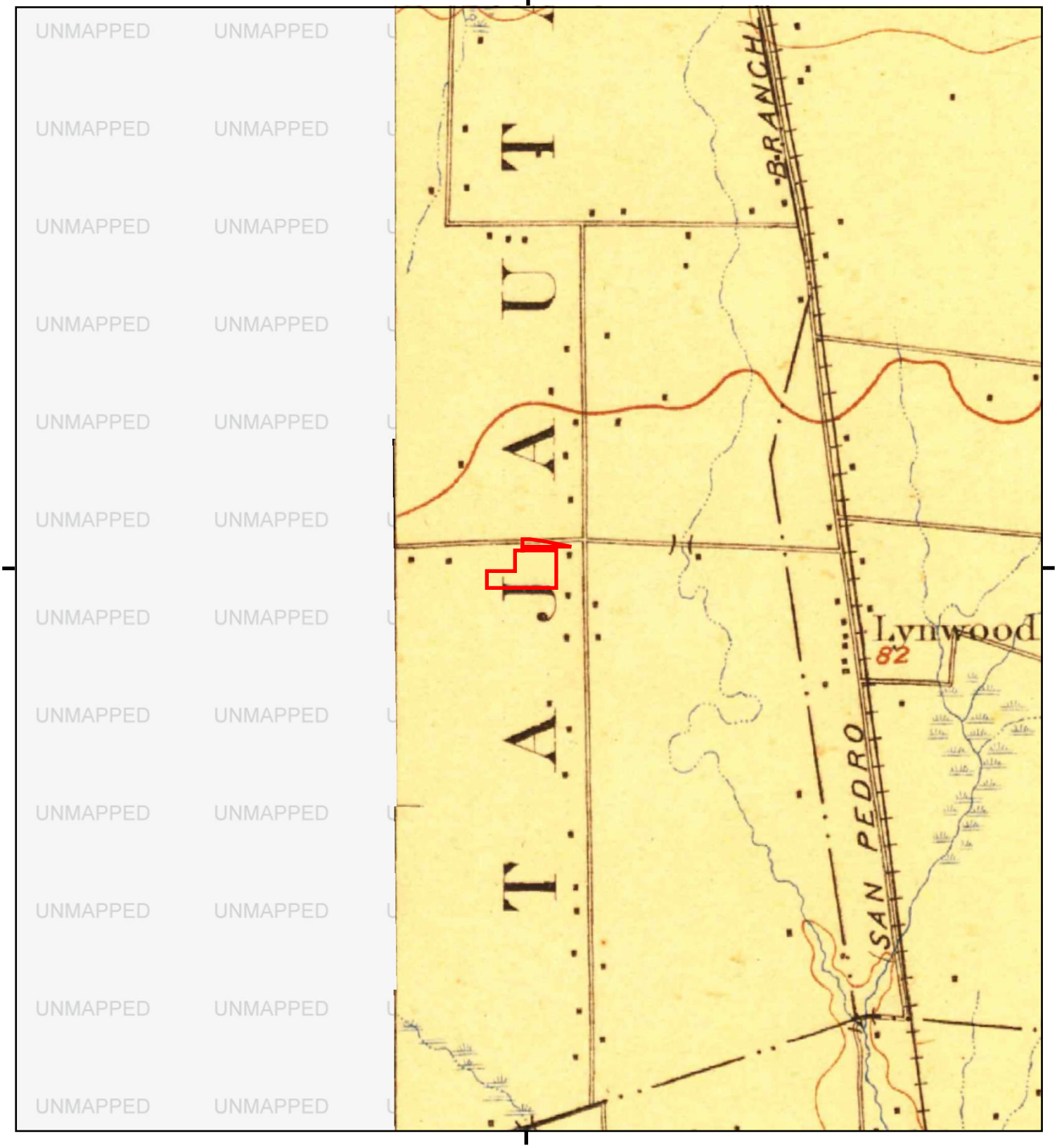
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Downey, 1902, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

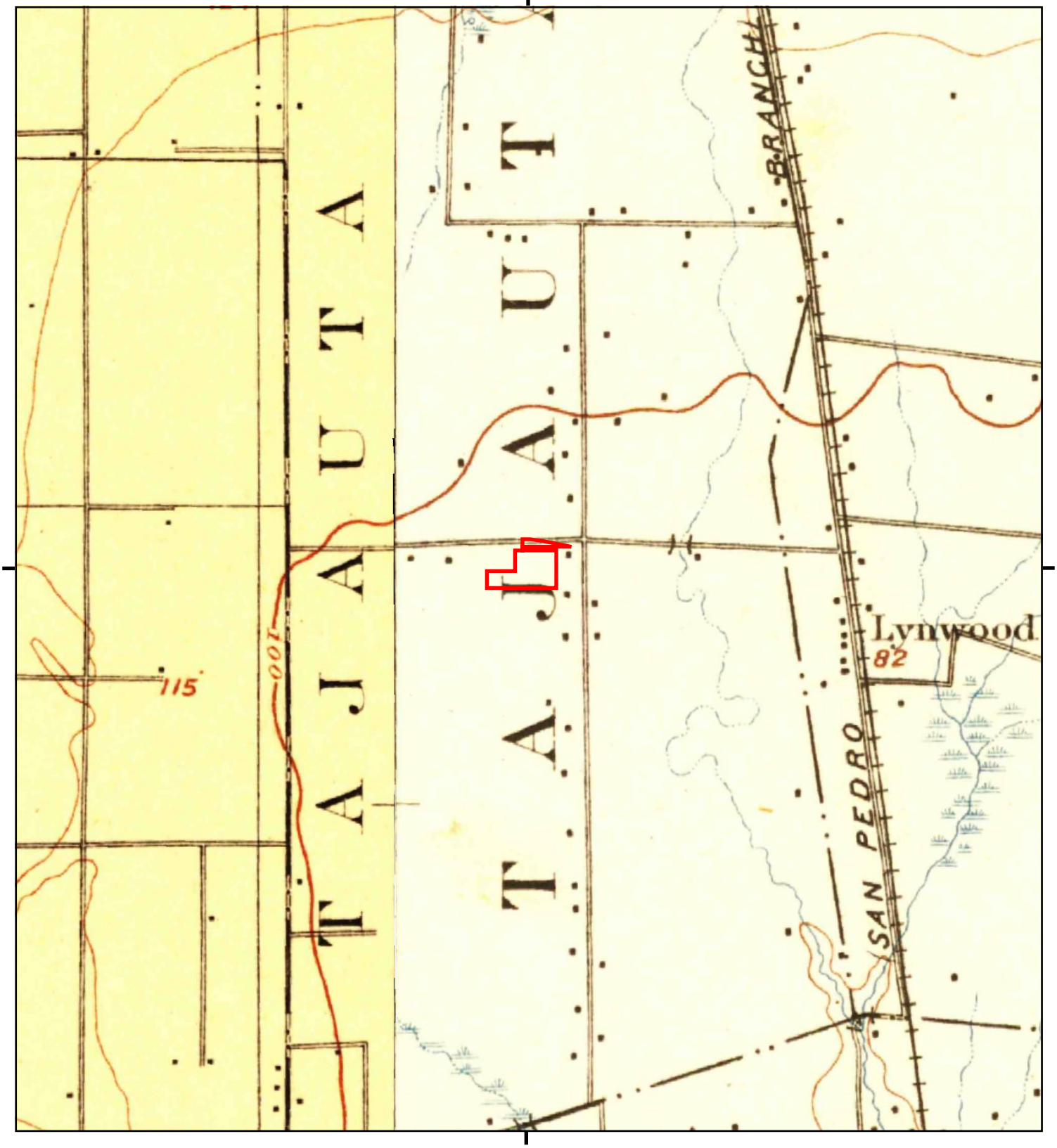
TP, Downey, 1899, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N

Historical Topo Map

1896



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Downey, 1896, 15-minute
SW, Redondo, 1896, 15-minute

SITE NAME: Lincoln Elementary School
ADDRESS: 1667 East 118th Street
Los Angeles, CA 90059
CLIENT: Geocon Env. Consultants, Inc.

N

APPENDIX F

Lincoln Elementary School
1667 East 118th Street
Los Angeles, CA 90059

Inquiry Number: 5650258.5
May 13, 2019

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2014. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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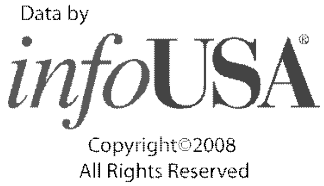

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2014	EDR Digital Archive	-	X	X	-
	EDR Digital Archive	X	X	X	-
2010	EDR Digital Archive	-	X	X	-
	EDR Digital Archive	X	X	X	-
2006	Haines Company	-	-	-	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	-	-	-	-
2000	Pacific Bell Telephone	X	-	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	X	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	PACIFIC BELL WHITE PAGES	X	-	X	-
1986	Pacific Bell	X	-	X	-
1985	Pacific Bell	-	-	-	-
1981	Pacific Telephone	-	-	-	-
1980	Pacific Telephone Co	-	-	-	-
1976	R.L. Polk & Co Publishers	-	-	-	-
1975	Pacific Telephone	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-
1971	R. L. Polk & Co.	-	-	-	-
1970	Pacific Telephone	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
1966	Pacific Telephone	-	-	-	-
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Pacific Telephone & Telegraph Co.	-	X	X	-
1950	Pacific Telephone	-	-	-	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Los Angeles Directory Co.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	The Glendale Directory Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	-	-	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Company Publishers	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1667 East 118th Street
Los Angeles, CA 90059

FINDINGS DETAIL

Target Property research detail.

118th

1667 118th

Year	Uses	Source
2000	CHARLES DREW HOSTRT	Haines & Company
1995	Carver Elementary	Pacific Bell
	Charles Drew Project Headstart	Pacific Bell
	Lincoln Elementary	Pacific Bell
	Lincoln Elementary School	Pacific Bell
1990	COMPTON CHILD CARE CENTER	Pacific Bell
	COMPTON UNIFIED SCHOOL DISTRICT ELEMENTARY SCHOOLS	Pacific Bell
1986	COMPTON CHILD CARE CENTER	Pacific Bell
	COMPTON UNIFIED SCHOOL DISTRICT ELEMENTARY SCHOOLS	Pacific Bell

E 118th St

1667 E 118th St

Year	Uses	Source
2014	COMPTON UNIFIED SCHOOL DST	EDR Digital Archive
2010	COMPTON UNIFIED SCHOOL DST	EDR Digital Archive
	FRIENDS OF LINCOLN DREW INC	EDR Digital Archive

E 118TH ST

1667 E 118TH ST

Year	Uses	Source
1995	Carver Elementary	Pacific Bell
	Charles Drew Project Headstart	Pacific Bell
	Lincoln Elementary	Pacific Bell
	Lincoln Elementary School	Pacific Bell

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

118TH ST E

1651 118TH ST E

Year	Uses	Source
1951	E 118th Jackson Elvira r	Pacific Telephone & Telegraph Co.

1653 118TH ST E

Year	Uses	Source
1951	E 118th Robertson Viola r	Pacific Telephone & Telegraph Co.

1657 118TH ST E

Year	Uses	Source
1951	E 118th McGlory Carrie r	Pacific Telephone & Telegraph Co.

1661 118TH ST E

Year	Uses	Source
1951	E 118th Easter Sally r	Pacific Telephone & Telegraph Co.

1663 118TH ST E

Year	Uses	Source
1951	E 118th Hardy J M r	Pacific Telephone & Telegraph Co.

1670 118TH ST E

Year	Uses	Source
1951	E 118th Petrie Erastus r	Pacific Telephone & Telegraph Co.

1674 118TH ST E

Year	Uses	Source
1951	E 118th Johnson Estella r	Pacific Telephone & Telegraph Co.

1675 118TH ST E

Year	Uses	Source
1951	E 118th Washington Chas H r	Pacific Telephone & Telegraph Co.

1701 118TH ST E

Year	Uses	Source
1951	E 118th Lewis John Chas r	Pacific Telephone & Telegraph Co.

FINDINGS

Year	Uses	Source
1951	E 118th Ford Osie r	Pacific Telephone & Telegraph Co.

1712 118TH ST E

Year	Uses	Source
1951	E 118th Evancich Mary r	Pacific Telephone & Telegraph Co.

1713 118TH ST E

Year	Uses	Source
1951	E 118th Honore Calvert P r	Pacific Telephone & Telegraph Co.

1715 118TH ST E

Year	Uses	Source
1951	E 118th Benton John H r	Pacific Telephone & Telegraph Co.

1718 118TH ST E

Year	Uses	Source
1951	E 118th Smith Aggie	Pacific Telephone & Telegraph Co.
	E 118th Woodson Frank r	Pacific Telephone & Telegraph Co.

1720 118TH ST E

Year	Uses	Source
1951	E 118th Williams Idella r	Pacific Telephone & Telegraph Co.

1723 118TH ST E

Year	Uses	Source
1951	E 118th Greer David r	Pacific Telephone & Telegraph Co.

1725 118TH ST E

Year	Uses	Source
1951	E 118th Greer Emma r	Pacific Telephone & Telegraph Co.

1729 118TH ST E

Year	Uses	Source
1951	E 118th Young Cliff r	Pacific Telephone & Telegraph Co.

E 118TH ST

1644 E 118TH ST

Year	Uses	Source
1958	Beason Willie Mae	Pacific Telephone

FINDINGS

1648 E 118TH ST

Year	Uses	Source
1958	Robinson Joe	Pacific Telephone

1652 E 118TH ST

Year	Uses	Source
1967	Robinson Joe	Pacific Telephone

1654 E 118TH ST

Year	Uses	Source
1967	South Central Volunteer Bureau	Pacific Telephone

E 118th St

1656 E 118th St

Year	Uses	Source
2014	CHILDERENS INSTITUTE	EDR Digital Archive
2010	COMMUNITY DEVELOPMENT INST	EDR Digital Archive

E 118TH ST

1670 E 118TH ST

Year	Uses	Source
1958	Burleson Kathleen	Pacific Telephone

1674 E 118TH ST

Year	Uses	Source
1967	Cox H	Pacific Telephone
1958	Franklin Lawrence Jos	Pacific Telephone

1704 E 118TH ST

Year	Uses	Source
1967	Harper B H	Pacific Telephone

1708 E 118TH ST

Year	Uses	Source
1967	Lewis Chas	Pacific Telephone

1712 E 118TH ST

Year	Uses	Source
1967	Reddix Mereda	Pacific Telephone
1958	Evancich Mary	Pacific Telephone

FINDINGS

1713 E 118TH ST

Year	Uses	Source
1958	Honore Adeline	Pacific Telephone

1716 E 118TH ST

Year	Uses	Source
1958	Matthews Genevieve	Pacific Telephone

1718 E 118TH ST

Year	Uses	Source
1967	Woodson Frank	Pacific Telephone
1958	Woodson Frank	Pacific Telephone

1720 E 118TH ST

Year	Uses	Source
1967	Williams E W	Pacific Telephone
1958	Mc Dade Laura	Pacific Telephone

1729 E 118TH ST

Year	Uses	Source
1967	Young Cliff	Pacific Telephone

1730 E 118TH ST

Year	Uses	Source
1995	President Dean	Pacific Bell
	Drew Charles R University Of Medicine & Science Administrative Offices	Pacific Bell
	Registrar	Pacific Bell
	Student Services	Pacific Bell
	Drew Charles R University Of Medicine & Science Administrative Offices	Pacific Bell
	Drew Child Developement Corp	Pacific Bell
	Charles Drew University Of Medicine & Science	Pacific Bell
	Drew Charles R University Of Medicine & Science Administrative Offices	Pacific Bell

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1644 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1648 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1651 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1652 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1653 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1654 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1656 E 118th St	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1657 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1661 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1663 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1670 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1670 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1674 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1674 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1675 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1701 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1704 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1708 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1712 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1712 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1713 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1713 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1715 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1716 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1718 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1718 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1720 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1720 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1723 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1725 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1729 118TH ST E	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1729 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1730 E 118TH ST	2014, 2010, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
1667 East 118th Street	2006, 2004, 2003, 2001, 1999, 1996, 1992, 1991, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

F-2 Phase I Environmental Assessment Review

CITADEL EHS
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August 9, 2021

Carl A. McLaney, MPA
Vice President of Administrative and Infrastructure
CDU/MLK WELLNESS COLLABORATIVE, LLC
1731 East 120th Street
Los Angeles, California 90059

Re: CITADEL Project No. 0350.1007.0
Environmental Document Review
Wellness Campus/Willowbrook Joint Development Project
East 118th Street
Los Angeles, California 90059

Dear Mr. McLaney:

Enclosed please find Citadel EHS's Environmental Document Review for the above-referenced location.

The Environmental Document Review was conducted for CDU/MLK Wellness Collaborative, LLC, in accordance with Citadel's Proposal 0350.1007.Q, dated June 23, 2021, and a mutually agreed upon scope of work.

If after your review, you have any questions or require additional information, please do not hesitate to telephone me at the Citadel Office in Glendale at (818) 246-2707.

Sincerely,
CITADEL EHS

Mark Drollinger
Digitally signed by Mark Drollinger
Date: 2021.08.09 10:54:24 -07'00'

Mark Drollinger, M.Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

Enclosure

CITADEL EHS
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CDU/MLK Wellness Collaborative, LLC
1731 East 120th Street
Los Angeles, California 90059

Environmental Document Review

August 9, 2021

Citadel Project Number 0350.1007.0

Wellness Campus/Willowbrook Joint Development Project
East 118th Street
Los Angeles, California 90059

www.CitadelEHS.com

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1.0 INTRODUCTION

Citadel EHS (Citadel) is pleased to submit this Environmental Document Review (EDR) for the property located at 1667 East 118th Street in the unincorporated community of Willowbrook, Los Angeles County, California (Site).

Objective

The purpose of the EDR was to peer review available documents and agency communications relevant to the Site usage, and any known environmental issues. This qualitative assessment was accomplished by review of readily available information regarding past use of the Site properties from publicly available sources, including a review of Sites identified by regulatory agencies as having used hazardous materials, produced hazardous waste or been responsible for a violation associated with hazardous substances. In addition, documents provided by the Client related to the historical use of the Site are reviewed to identify past use of the Site, or a use that may represent an adverse environmental condition on the Site. The assessment did not include a Site reconnaissance.

The scope of services for the EDR included the following:

- Reviewed existing documents provided by the Client to assess the prior conditions of the Site; and

- Prepared a Summary of Findings providing an overview of environmental status of the Site, including recommendations for additional investigation, as necessary.

2.0 SITE IMPROVEMENTS

2.1 Location and Improvements

The irregular-shaped non-contiguous Site is generally bounded by Interstate 105 Freeway to the north; a parking garage and a surface parking lot to the east; East 118th Street to the south; and residences and Compton Avenue to the west. According to the County of Los Angeles' Assessor's Parcel Maps, the Site is comprised of five parcels legally identified as Assessor's Parcel Numbers (APNs) 6419-012-901; and 6149-014-900, -903, -904, and -906. The Site is bisected by East 117th Street and the parcel identified by APN 6149-014-906 is located north of East 117th Street and will be discussed as the North Parcel. The remaining parcels located south of East 117th Street will be discussed as the South Parcel. The two parcels (Site) encompasses approximately 12.84 acres of land.

The Site consists of a former public elementary school (Lincoln Elementary) in the South Parcel, which lies within the Compton Unified School District (CUSD). The North Parcel is undeveloped vacant land.

2.2 Site History

A review of historical sources showed that the Site was undeveloped as early as 1896 until at least 1923 with the development of small structures, likely single-family residences, in the North and South Parcels at the Site. Additional small structures appeared developed in the South Parcel along 117th Street and an L-shaped structure appeared developed in the southwest corner of the South Parcel by 1928. According to the 1937 and 1949 Topographic Maps, the L-shaped structure was occupied as Lincoln School. By 1963, the residences in the South Parcel appeared to have been demolished and Lincoln School appeared to have expanded with the development of the current structures in the south portion of the South Parcel. Additional structures including the current structure in the northeast corner of the South Parcel was constructed by 1972. The residences in the North Parcel appeared to have been demolished by 1989. The Interstate 105 Freeway appeared developed by 1994. The structures in the southwest portion of the South Parcel appeared demolished by 2002. Additional school structures appeared developed in the north portion of the South Parcel by 2005 and demolished by 2009. The Site appeared in its current configuration with the development of additional playground areas by 2012.

2.3 Review of Previous Environmental Assessments

Citadel reviewed the *Phase I Environmental Site Assessment Report, Lincoln Elementary School Property, Willowbrook, California*, prepared by Geocon Incorporated, dated June 14, 2019.

Geocon Incorporated (Geocon) prepared a Phase I Environmental Site Assessment (Phase I ESA) in June 2019. According to Geocon, the Site was occupied by the Compton Unified School District/Lincoln Elementary from 1986 to 2014. The Site was identified on the HAZNET database as a generator of asbestos-containing waste, inorganic solid waste, and polychlorinated biphenyls from 2003 to 2005. Geocon concluded that the assessment revealed no evidence of recognized environmental conditions (RECs) in connection with the Site.

3.0 SUMMARY OF FINDINGS

Based on our review of the provided documents, Citadel agrees with the findings of Geocon's assessment and did not identify evidence of RECs or environmental concerns. Citadel recommends that the tenant follow best management practices, in conformance with all appropriate current regulations, in regards to potential use of regulated hazardous materials and/or waste generated during everyday operations.

4.0 LIMITATIONS

The information and opinions rendered in this report are exclusively for use by the Client. Citadel will not distribute this report without the Client's written consent, except as may be required by law or court order. The recommendations expressed in this report took into consideration the purpose and scope of this limited assignment. We accept responsibility for the competent performance of our duties in executing the assignment and preparing this report in accordance with the normal standards of our profession but disclaim any responsibility for consequential

damages resulting from inaccuracies in information provided by the Client, federal, state, county, or local regulatory agencies.

5.0 DISCLAIMER

The services performed by Citadel Environmental Services, Inc. ("Citadel"), d.b.a. Citadel EHS, in connection with this Report were performed in accordance with generally and currently accepted engineering practices and principles; provided, however, Citadel completed such services as directed by the Client and the recommendations described in this Report are therefore limited in purpose and scope. The procedures and methodologies used by Citadel in its performance of services, and the recommendations contained herein, are not intended to meet the requirements under any specific laws or regulatory guidelines unless expressly set forth in the Proposal.

The recommendations and conclusions set forth in this Report are based on information and data available to Citadel during the course of its performance of the services. Citadel relied on the information and data provided by or on behalf of Client, including, if applicable, historical and present operations, conditions and test data, and Citadel assumed all such information and data was correct and complete. Citadel shall not be liable for any damages or losses resulting from inaccuracies of, or omissions from, information or data provided by or on behalf of the Client, any interested third-parties, or any federal, state, county, or local governmental authority, or otherwise available in the public domain.

The information contained in this Report and conclusions resulting therefrom are based solely on information available to Citadel at the time of its performance of services, and from observations and perceived conditions and materials existing on the date of Citadel's limited survey of the site, if applicable. Citadel disclaims any inaccuracy in the Report as a result of any part or parcel of property to which Citadel was not provided access, or which was concealed, including, but not limited to, wall cavities/chases, ceiling plenums, below floor finishes, crawlspaces, below grade, beneath existing structures, or behind electrical panels.

The findings and recommendations presented in this Report are based upon observations of present conditions and may not necessarily indicate future conditions. No conclusions should be construed or inferred other than those expressly stated in this Report. EXCEPT FOR ANY WARRANTIES EXPRESSLY SET FORTH IN THE PROPOSAL OR OTHER WRITTEN AGREEMENT BETWEEN CITADEL AND CLIENT, CITADEL MAKES NO WARRANTIES HEREUNDER WITH RESPECT TO ANY INFORMATION CONTAINED IN THIS REPORT, EXPRESS OR IMPLIED, AND CITADEL HEREBY DISCLAIMS ALL OTHER WARRANTIES.

All testing and remediation methods have reliability limitations and no method nor number of sampling locations can guarantee that a hazard will be discovered if contamination or other evidence of the hazard is not encountered within the performance of the services as authorized. Reliability of testing or remediation varies according to the sampling frequency and other service variables that were selected by Client. Citadel shall not be at fault or liable for any such limitations.

The information and opinions rendered in this report are exclusively for use and reliance by the Client. The information contained herein may not be used, disclosed, or copied without written permission of the Client and may not be relied upon without the written permission of Citadel.

6.0 REFRENCES

Geocon Incorporated, Phase I Environmental Site Assessment, Lincoln Elementary School Property, Willowbrook, California, June 14, 2019.

7.0 SIGNATURES

Environmental Document Review Prepared By:

Shirley Lee
Digitally signed by Shirley Lee
Date: 2021.08.09 10:54:37 -07'00'

Shirley Lee
Senior Staff Environmental Specialist

Environmental Document Review Reviewed By:

Mark Drollinger
Digitally signed by Mark Drollinger
Date: 2021.08.09 10:54:47 -07'00'

Mark Drollinger, M.Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

F-3 Phase II Subsurface Investigation Report

CITADEL EHS
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January 10, 2025

Carl McLaney, Managing Partner Representative,
Vice President of Administration and Infrastructure
CDU/MLK Wellness Collaborative, LLC
1731 East 120th Street
Los Angeles, California 90059

Re: CITADEL Project No. 0350.1009.0
Citadel Phase II Site Investigation Summary Letter
1667 East 118th Street
Los Angeles, California 90059

Dear Mr. McLaney:

In July 2021, Citadel conducted a Phase II Site Investigation (Phase II) at the above referenced location (Site) to provide assessment and delineation of soil and soil vapor risks. As a result of the investigation, no conditions requiring mitigation or remediation were identified.

The Phase II consisted of the advancement of twenty-five soil borings across the Site to depths up to 15 feet below ground surface (bgs). Two near surface soil samples were collected near surface-mounted transformers. Methane field data, soil vapor and soil samples were collected from the borings. Soil vapor samples collected at 5 and 15 feet bgs from each boring were analyzed for volatile organic compounds (VOCs). Soil samples collected at 5 feet bgs from each boring were analyzed for VOCs, total petroleum hydrocarbons (TPH), Title 22 metals and organochlorine pesticides (OCPs). The shallow soil samples collected near the transformers were analyzed for polychlorinated biphenyls (PCBs). Laboratory results from the Phase II were compared to California State Environmental Protection Agency (CalEPA) environmental screening levels (ESLs) that are published by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB;2020) and screening levels (SLs) that are published by the Department of Toxic Substances Control (DTSC; 2020). ESLs and SLs are used as a basis for determining if further action is required for a site. Further action, if required, may include the preparation of a human health risk assessment, additional subsurface data collection, remediation, indoor air testing, the implementation of mitigation measures, or a combination of these actions. ESLs and SLs are not regulatory limits, hazardous waste thresholds or remediation cleanup goals.

Because the proposed Project includes residential occupancy, the residential ESL and SL for tetrachloroethene (PCE) in soil vapor of 15 µg/m^3 was referenced to determine if further action for the Site was required. The residential ESL and SL of 15 µg/m^3 are based on a regulatory health threshold concentration for residential indoor air 0.46 µg/m^3. To derive the soil vapor residential ESL and SL of 15 µg/m^3, a conservative screening attenuation factor (AF) of 0.03 was used (DTSC 2022; DTSC-RWQCB, 2023). The conservative screening AF refers to the decrease in VOC concentration that would occur through the process of vapor migration into the indoor air space of a building coupled by dilution of the indoor air concentrations of vapor when mixed completely with indoor air. An AF of 0.03 assumes that 3% of VOC concentrations in subsurface vapor will accumulate in the building interior through the combination of migration and dilution, and thus defines the conservative theoretical threshold concentration limit of subsurface soil vapor that may pose an indoor air health risk. A conservative AF is used in the absence of a Site-specific AF (DTSC-RWQCB, 2023). However, it is anticipated that newly constructed residential buildings will have an AF of approximately 0.001 (DTSC, 2011), thereby allowing for a higher concentration of PCE in subsurface

vapor before exceeding the indoor air residential screening level of 0.46 µg/m^3. Based on an AF of 0.001, PCE vapor concentrations in the subsurface would need to be approximately 460 µg/m^3 prior to exceeding the indoor air residential screening level of 0.46 µg/m^3.

A summary of soil vapor results showed the following:

- PCE was reported in soil vapor samples from 23 borings primarily in the middle of the Site at concentrations ranging between 1.1 and 48 µg/m^3[1].
- Reported concentrations of PCE in eight samples from six of the borings range between 15 and 48 µg/m^3, equal to or above the residential ESL and SL of 15 µg/m^3. Concentrations of PCE in three of these borings are reported to be higher in the shallow (5-foot) samples than the deep (15-foot) samples. The results for the six borings with PCE concentrations > 15 µg/m^3 are summarized in the following table:

Boring ID	Sample Depth (feet below ground surface)	PCE Concentration (µg/m^3)
B2-5V	5	48
B2-15V	15	6.3 J
B11-5V	5	39
B11-15V	15	14 J
B15-5V	5	7.5 J
B15-15V	15	15 J
B16-5V	5	32 J
B16-15V	15	19 J
B18-5V	5	8.1 J
B18-15V	15	17 J
B20-5V	5	26 J
B20-15V	15	23 J

- Due to the low concentrations and limited areal extent of PCE, and due to an expected lower AF for newly constructed buildings, a vapor intrusion risk to future building occupants is de minimis. Furthermore, grading and excavation will result in the dissipation of VOCs that may be present in the subsurface pore space as soil vapor, and the volatilization of VOCs that may be present in soil[2]. Based on these conditions, soil vapor mitigation or remediation measures are not required. No source of PCE in soil vapor was identified during the investigation, therefore no remediation is required.

A summary of soil results showed the following:

- TPH as diesel (TPHd) and oil (TPHo) were reported in 19 soil samples primarily from the southern portion of the Site, at concentrations that are below respective residential ESLs and SLs.
- Lead was reported in 23 soil samples primarily in the central portion of the Site, at concentrations below the residential ESL and SL.

[1] The laboratory reporting limit (RL) was 34 µg/m^3. Reported concentrations below this value are therefore flagged by the laboratory with a "J" and represent an estimated concentration only.
[2] Due to having a high vapor pressure, VOCs readily volatilize from soil when exposed to atmosphere.

- Dieldrin, an OCP, was reported in one soil sample at a concentration below the residential ESL and SL.
- Acetone, a VOC, was reported in one soil sample at a concentration below the residential ESL and SL.
- Based on the presence of TPH, lead, dieldrin and acetone at concentrations that are below respective residential ESLs, soil mitigation or remediation measures are not required.
- PCE was not reported in any of the soil samples.
- The reported concentrations of TPH, VOCs (including PCE), heavy metals, OCPs and PCBs were not detected above the laboratory method detection limit or were below the respective residential ESLs and SLs, and therefore soil remediation is not required.

In summary, no conditions requiring mitigation or remediation of soil or soil vapor were identified during the Phase II. Development activities planned for the Site will include the disturbance and removal of soil. Although a potential source for PCE was not identified, concentrations of TPH and other VOCs in soil are below respective screening levels, and no remediation or mitigation measures are required, a potential exists to discover these constituents during Site development activities. Citadel therefore recommends the implementation of a Soil Management Plan (SMP) for use during soil disturbing activities. The SMP describes specific soil-handling procedures required to comply with South Coast Air Quality Management District (SCAQMD) regulations, prevent unacceptable human exposure to contaminated soil and soil vapor, and prevent the improper use, re-use or disposal of potentially contaminated soils that may be encountered. Any contaminants discovered during development of the Site will be handled, managed and disposed of according to the procedures described in the SMP, and all regulatory requirements[3]. Following the conclusion of development activities, a close-out report will be prepared. The report will document soil disturbance activities during development of the Site and the discovery of contaminated material, if found. The report will provide a summary of findings and recommendations, if needed.

If you have any questions or require additional information, please do not hesitate to telephone me at (818) 246-2707.

Sincerely,
CITADEL EHS

Mark Drollinger M. Eng., CSP
Principal, Engineering and Environmental Sciences

Scott Grasse, PG, MSc
Senior Geologist, Engineering and Environmental Sciences

Cc: Elaine Nesbit

[3] The Site is under the jurisdiction of the County of Los Angeles Fire Department - Site Mitigation Unit. See also references at the end of this document.

References:

California Code of Regulations, Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste.

Citadel EHS, 2021, Environmental Document Review, 1667 East 118th Street, Los Angeles, California, 90059. August 9.

Citadel EHS, 2021, Phase II Subsurface Investigation Report, 1667 East 118th Street, Los Angeles, California, 90059, August 18.

Department of Toxic Substances Control, 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, October.

Department of Toxic Substances Control, Human and Ecological Risk Office, 2020. Human Health Risk Assessment (HHRA) Note Number 3, Guidance for Screening Level Human Health Risk Assessments, June.

Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office, 2022, Human Health Risk Assessment (HHRA) Note Number 3, Vapor Intrusion Update, August.

Department of Toxic Substances Control – Regional Water Quality Control Board (DTSC-RWQCB), 2023. Supplemental Guidance: Screening and Evaluating Vapor Intrusion, Final Draft, February.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), 2019. Environmental Screening Levels.

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August 18, 2021

Carl A. McLaney, MPA
Vice President of Administration and Infrastructure
CDU/MLK WELLNESS COLLABORATIVE, LLC
1731 East 120th Street
Los Angeles, California 90059

Re: CITADEL Project No. 0350.1007.0
Phase II Subsurface Investigation Report
CDU/MLK Collaborative, LLC
Wellness Campus/Willowbrook Joint Development Project
East 118th Street
Los Angeles, California 90059

Dear Mr. McLaney:

Citadel EHS (Citadel) is pleased to provide you with this Phase II Subsurface Investigation Report for the above-referenced location.

The Limited Phase II Subsurface Investigation was completed for CDU/MLK Collaborative, LLC. (Client) in general accordance with Citadel's Proposal 0350.1007.Q, dated June 23, 2021, and mutually agreed upon scope of work.

If, after your review, you have any questions or require additional information, please do not hesitate to telephone me at (818) 246-2707.

Sincerely,
CITADEL EHS

Scott Grasse

Digitally signed by Scott Grasse
Date: 2021.08.18 17:10:19-07'00'



Scott Grasse, PG, MSc
Project Geologist, Engineering and Environmental Sciences

Enclosure

CITADEL EHS
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CDU/MLK Wellness Collaborative, LLC
1731 East 120th Street
Los Angeles, California 90059

Phase II Subsurface Investigation Report

August 18, 2021

Citadel Project Number 0350.1007.0

CDU/MLK Collaborative, LLC
Wellness Campus/Willowbrook Joint Development Project
1667 East 118th Street
Los Angeles, California 90059

www.CitadelEHS.com

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Appendix G Laboratory Reports and Chain of Custody Documentation

1.0 INTRODUCTION

Citadel EHS (Citadel) has prepared this Phase II Subsurface Investigation Report for the property located at 1667 E 118th Street in the City of Los Angeles, California (Site) for CDU/MLK Wellness Collaborative, LLC (CMWC) (Client). The Client is planning to expand the existing Charles R. Drew University of Medicine and Science (CDU) campus with the development of the CMWC Wellness Campus.

The Site consists of an abandoned elementary school property, a triangular shaped parcel of undeveloped land north of 117th Street, and asphalt-paved surface parking areas on approximately 12.8 acres of land. The Site is bound by Interstate 105 (The Glenn Anderson Freeway) to the north; a parking structure to the east; East 118th Street and the existing CDU campus to the south; and Compton Avenue and single-family residences to the west. The Project consists of four contiguous parcels and a fifth parcel divided by 117th Street. The Assessor's Parcel Numbers (APNs) associated with the Site include 6149-014-900, -903, -904, -9006, and 6149-012-901. Please refer to Figure 1 for a Site Location Map.

Citadel understands that the development plans for the Site will include over 300 units of deed-restricted workforce and affordable housing with over 900 units of on-campus student housing for CDU students, 40,000 square feet (SF) of community-serving retail space, 110,000 SF of community, office, research, and clinical space to support organizations including Martin Luther King Jr (MLK) Community Hospital and CDU, athletics and recreation facilities, and over 550 new structured parking spaces.

2.0 BACKGROUND

The Client requested environmental services consisting of an environmental document review (EDR)of historical records and a Phase I Environmental Site Assessment (Phase I ESA), prepared by Geocon Incorporated (Geocon); and a Phase II Subsurface Investigation of the five parcels.

Citadel prepared the EDR on August 9, 2021. A summary of Citadel's review is presented here.

- The Site was undeveloped as early as 1896 until at least 1923 with the development of small structures, likely single-family residences, in the North and South Parcels at the Site. Additional small structures appeared developed in the South Parcel along 117th Street and an L-shaped structure appeared developed in the southwest corner of the South Parcel by 1928. According to the 1937 and 1949 Topographic Maps, the L-shaped structure was occupied as Lincoln School. By 1963, the residences in the South Parcel appeared to have been demolished and Lincoln School appeared to have expanded with the development of the current structures in the south portion of the South Parcel. Additional structures including the current structure in the northeast corner of the South Parcel was constructed by 1972. The residences in the North Parcel appeared to have been demolished by 1989. The Interstate 105 Freeway appeared developed by 1994. The structures in the southwest portion of the South Parcel appeared demolished by 2002. Additional school structures appeared developed in the north portion of the South Parcel by 2005 and demolished by 2009. The Site appeared in its current configuration with the development of additional playground areas by 2012.
- Citadel reviewed the *Phase I Environmental Site Assessment Report, Lincoln Elementary School Property, Willowbrook, California*, prepared by Geocon, dated June 14, 2019. According to Geocon, the Site was occupied by the Compton Unified School District/Lincoln Elementary from 1986 to 2014. The Site was identified on the HAZNET

database as a generator of asbestos-containing waste, inorganic solid waste, and polychlorinated biphenyls from 2003 to 2005. Geocon concluded that the assessment revealed no evidence of recognized environmental conditions (RECs) in connection with the Site.

Based on a review of readily available historical sources and the Phase I ESA, Citadel agrees with Geocon's findings of no identified RECs or environmental concerns.

3.0 GEOLOGY/HYDROGEOLOGY

The Site is relatively flat at an elevation of approximately 92 feet above mean sea level. The Site is identified on the geologic map of Long Beach quadrangle, California (Saucedo, et. Al, 2016) as being Holocene age alluvium sediments. The sediments are described as poorly consolidated, poorly sorted, permeable flood-plain deposits consisting of soft clay, silt and loose to moderately dense sand and silty sand.

The Site is located within the west central part of the Coastal Plain of Los Angeles Central Subbasin (No. 4-011.04), Los Angeles County (California Natural Resources Agency, 2003). The main productive freshwater-bearing sediments within the subbasin are contained within Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations.

Based on Geocon's Phase I report, twenty-six groundwater monitoring wells have been installed on or near the Hooper Texaco Service Station at 11913 South Compton Avenue, approximately 0.139 miles southwest of the Site. The wells are related to Los Angeles County Regional Water Quality Control Board (LARWQCB) Leaking Underground Storage Tank (LUST) case R-01258. The depth to groundwater within these wells was reported to range from approximately 40 to 46 feet below ground surface (bgs) with a groundwater gradient towards the south-southeast.

Groundwater was not encountered during this investigation. The soil borings were logged under the supervision of a California Professional Geologist. Soils encountered by Citadel consisted primarily of silt with some clayey silt and silty sand.

4.0 PRE-FIELD ACTIVITIES

A Site-specific health and safety plan (HASP) was prepared prior to conducting the on-site activities. This HASP identified existing and potential hazards for workers during drilling and sample collection activities. The HASP was discussed with the Citadel team and subcontractors each day prior to performing the fieldwork. A copy of the HASP is included in Appendix A.

To screen the boring locations for potential utilities, Citadel marked the proposed boring locations and contacted Underground Service Alert (USA) for marking of utilities. A geophysical survey was conducted on July 19, 2021 by GPRS, Inc. under the supervision of a Citadel representative to detect and delineate, to the extent possible, pipes, conduits, utilities, and other underground obstructions within a 10-foot radius of the proposed boring locations. All potential objects or obstructions were marked in paint, and cleared boring locations were identified. Refer to Appendix B for a copy of the USA DigAlert ticket, and Appendix C for the Geophysical Survey Summary.

5.0 SOIL, SOIL VAPOR AND INDOOR AIR QUALITY SAMPLING

On July 21 and July 22, 2021 Citadel advanced 25 borings at approximately 150-foot centers across the Site to a depth of approximately 15 feet bgs using a direct push drill rig. Two shallow samples identified as boring 3 and boring 21 B3 and B21 were advanced to approximately six inches with a shovel at the former transformer locations. Please refer to Figure 2 for a Site Map showing the locations of the borings, Appendix D for copies of Citadel's field notes, and Appendix E for a Photographic Log of the work activities.

Soil Sampling

Soil samples were collected from the 25 borings at approximately six inches, five, 10, and 15 feet bgs. Samples collected at six inches were collected in laboratory supplied four-ounce (4 oz.) glass jars; with the samples collected at five, 10 and 15 feet bgs collected in acetate sleeves. Two shallow samples identified as boring 3 and boring 21 (B3 and B21) were advanced to approximately six inches with a shovel at the former transformer locations. Each sample was labeled according to the boring number and the sample depth. For example, B1-5 is the five-foot sample from boring B1. The soil borings were logged under the supervision of a California Professional Geologist. Soils encountered consisted primarily of silt with some clayey silt and silty sand. Split soil samples collected from each boring were field screened with a photoionization detector (PID) to monitor the vapor space for the presence of volatile organic compounds (VOCs). VOCs in the soil vapor were not detected in split samples, and no odorous or stained soil samples were observed. Please refer to Appendix F for copies of the Boring Logs.

One-hundred and two soil samples were collected and placed in a chilled cooler for transportation to Eurofins Calscience, LLC., (Eurofins) a state-certified laboratory, under standard Chain-of-Custody (COC) protocols.

Soil Vapor Sampling

Soil vapor probes were installed at depths of five and 15 feet bgs in each boring. The soil vapor sampling probes were installed in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) Active Soil Gas Investigations Advisory[1] (DTSC Active Soil Gas Advisory) and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air[2]. Soil vapor probe tips were placed within a sand pack at the sampling depths. Approximately six inches of dry bentonite chips were placed over the sand pack, followed by placement of hydrated bentonite. Gas tight fittings were placed at the end of the probes at the surface.

Following installation of the probes the subsurface was allowed to equilibrate back to representative conditions for a minimum of two hours before collecting soil vapor samples. Soil vapor samples were collected by a Citadel qualified environmental specialist following the procedure of DTSC's Active Soil Gas Advisory. Prior to the collection of samples, the probes, fittings and tubing were tested for leaks and purged at least three soil pore volumes (volumes of tubing, sand pack and annular bentonite). Samples were collected at a sampling rate of 200 milliliters

[1] Advisory Active Soil Gas Investigations, California Environmental Protection Agency, Department of Toxic Substance Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, July 2015.

[2] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substance Control, California Environmental Protection Agency, October 2011.

per minute (mL/min). Soil vapor samples are identified by appending a "V" designation to the boring identification. For example, B1-5V is the five-foot soil vapor sample from boring B1.
Fifty soil vapor samples were collected in one-liter Tedlar bags and placed into a non-chilled travel container for transportation to Eurofins, under standard COC protocols.

Methane field data was collected from each vapor probe by means of a portable Landtec GEM 5000 Plus Landfill Gas Monitor (Landtec). Methane was not detected from any of the soil vapor probes.

Following the collection of soil and soil vapor samples, and methane field data, the soil vapor probes were removed, and the boring locations backfilled with hydrated bentonite.

Laboratory Analysis

All samples were delivered to Eurofins on the day they were collected. The soil and soil vapor samples were analyzed for the following constituents:

Twenty-five soil samples collected at approximately six inches from each boring were analyzed for organochlorinated pesticides (OCP) by EPA Method 8081A.

Twenty-five soil samples collected from five feet bgs from each boring were analyzed for VOCs by EPA Method 8260B and total petroleum hydrocarbons (TPH) by EPA Method 8015B.

Fifty soil samples collected from approximately six inches and five feet bgs from each boring were analyzed for Title 22 Heavy Metals using EPA Methods 6010B/7471A.

Two soil samples collected at approximately six inches near the former transformer pads were analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082.

Fifty soil vapor samples were analyzed for VOCs by EPA Method 8260B.

The remaining soil samples were submitted to the laboratory and placed on hold for analysis if deemed necessary. Based on the results of the soil vapor analyses (discussed below), and due to the absence of VOCs detected with the PID, no other soil samples were analyzed.

6.0 SCREENING LEVELS

Laboratory results above the reporting limits (RLs) for each sample were compared to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB, 2019) Environmental Screening Levels (ESLs); the California Department of Toxic Substances Controls (DTSC) Human and Ecological Risk Office (HERO) Note 3 Screening Levels (SLs, 2020); and from the US Environmental Protection Agency's (EPA) Regional Screening Levels (RSLs, 2020). The DTSC SLs and EPA RSLs were compared to the results when the SFBRWQCB ESLs were not available for that constituent. The soil vapor ESLs for evaluating soil vapor intrusion are based on indoor air concentrations over an attenuation factor (AF) of 0.03. This represents a very conservative approach to establishing future risk.

7.0 RESULTS

This section presents a summary and comparison of the results to the appropriate screening levels for soil and soil vapor. VOCs in soil vapor are summarized in Table 1. VOCs, TPH, Title 22 Metals, OCPs and PCBs in soil are summarized in Tables 2 through 5. Copies of the laboratory reports are presented in Appendix G.

Fifty soil vapor samples were analyzed for VOCs.

- A total of five VOCs were detected above laboratory reporting limits (RLs).
- Tetrachloroethene (PCE) was detected in borings B2 and B11 at five-foot bgs at concentrations of 48 and 39 micrograms per cubic meter (µg/m^3), respectively. These concentrations are above the residential ESL of 15 µg/m^3; and detected below the residential ESL at 15 feet bgs with concentrations of 6.3 and 14 µg/m^3, respectively.
- Toluene was detected in 45 samples, at concentrations between 23 and 73 µg/m^3, below the residential ESL of 10,000 µg/m^3.
- Xylene was detected in 16 samples, at concentrations between 24 and 120 µg/m^3, below the residential ESL of 3,500 µg/m^3.
- 1,1-Dichloroethene was detected in three samples, at concentrations between 1.0 and 9.8 µg/m^3, below the residential ESL of 2,400 µg/m^3.
- Ethanol was detected in seven samples, at concentrations between 94 and 120 µg/m^3. There is no regulatory ESL for ethanol.

Twenty-five soil samples were analyzed for OCPs, VOCs and TPH.

- An acetone concentration of 27 milligrams per kilogram (mg/kg) was detected in B1-5, below the residential ESL of 61,000 mg/kg.
- TPH as diesel (TPHd) was detected in 10 samples, at concentrations between 5.6 and 96 mg/kg, below the residential ESL of 260 mg/kg.
- TPH as oil (TPHo)was detected in 11 samples, at concentrations between 5.8 and 500 mg/kg, below the residential ESL of 12,000 mg/kg.
- A dieldrin concentration of 6.4 mg/kg was detected in B7-0.5, below the residential ESL of 37 mg/kg.

Fifty soil samples were analyzed for Title 22 Metals.

- Lead was detected in twenty-three samples, at concentrations between 10.6 and 69.3 mg/kg, below the residential SL of 80 mg/kg, and exceeding the Soluble Threshold Limit Concentration (STLC) regulatory threshold of 50 mg/kg in one sample.

Two soil samples were analyzed for PCBs.

- PCBs were not detected above laboratory RLs in either sample.

8.0 FINDINGS AND RECOMMENDATIONS

The current investigation was intended to provide assessment and delineation of soil and soil vapor risks at the Site. Twenty-five borings and two shallow holes were advanced across the Site. Methane field data was collected from 25 borings. Fifty soil vapor samples were analyzed for VOCs, 25 soil samples were analyzed for VOCs and TPH, 50 soil samples were analyzed for Title 22

Metals, 25 soil samples were analyzed for OCPs, and two soil samples were analyzed for PCBs. Based on the findings of this investigation and analytical results, Citadel concludes the following.

- PCE was detected in soil vapor from borings B2 and B11, at concentrations that are above the residential ESL of 15 µg/m^3 in two samples.
- Concentrations of TPHd and TPHo were detected in soil samples primarily from the southern portion of the Site.
- Fuel-related VOCs including ethanol, toluene and xylene were detected in soil vapor samples primarily from the southern and southeastern portion of the site.
- Lead was detected in twenty-three soil samples primarily in the central portion of the site, at concentrations below the residential SL of 80 mg/kg and exceeding the STLC regulatory threshold of 50 mg/kg in one sample.
- Methane was not detected in any of the soil vapor probes.

Based on this investigation, the Site is impacted by VOCs, TPH and lead. Citadel recommends the preparation and implementation of a Soil Management Plan (SMP) prior to any construction activities that will disturb soil in the impacted areas, including trenching, grading, excavation, and any other human activities that could potentially bring potentially contaminated soil to the surface, or impacted soil vapor into the breathing zone. The purpose of the SMP is to describe specific soil-handling controls required for complying with local, state and federal overseeing agencies, prevent unacceptable exposure to contaminated soil, and prevent the improper use, re-use or disposal of potentially contaminated soils.

9.0 REFERENCES CITED

California Department of Toxic Substances Control, Human and Ecological Risk Office, Human Health Risk Assessment Note Number 3, June 2020.

California State Water Resources Control Board, GeoTracker. (http://geotracker.waterboards.ca.gov/).

Citadel Environmental Service, Inc., Environmental Document Review, Wellness Campus/Willowbrook Joint Development Project, East 118th Street, Los Angeles, California 90059, August 9, 2021.

Geocon Incorporated, Phase I Environmental Site Assessment, Lincoln Elementary School Property, Willowbrook, California, June 14, 2019.

Los Angeles County Assessor's Office, on-line parcel information (www.assessor.lacounty.gov).

San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, 2021.

Saucedo, et. al, Geologic map of the Long Beach quadrangle, Version 2.0; California; California Geological Survey, scale 1:100,000, 2016.

United States Geological Service, Southgate Quadrangle, 7.5 Minute Series, scale 1:24:000, 2018.

United States Environmental Protection Agency, Regional Screening Levels (RSLs), May 2020.

10.0 LIMITATIONS

This Investigation was performed in accordance with generally and currently accepted engineering practices and principles. Although the data in this report is indicative of subsurface conditions in areas investigated, no further conclusions regarding the absence or presence of subsurface contamination at the site should be construed or inferred other than those expressly stated in this report. The conclusions made are based on information obtained from field observations, and from relevant Federal, State, regional, and local agencies.

11.0 DISCLAIMER

The services performed by Citadel Environmental Services, Inc. ("Citadel"), d.b.a. Citadel EHS, in connection with this Report were performed in accordance with generally and currently accepted engineering practices and principles; provided, however, Citadel completed such services as directed by the Client and the recommendations described in this Report are therefore limited in purpose and scope. The procedures and methodologies used by Citadel in its performance of services, and the recommendations contained herein, are not intended to meet the requirements under any specific laws or regulatory guidelines unless expressly set forth in the Proposal.

The recommendations and conclusions set forth in this Report are based on information and data available to Citadel during the course of its performance of the services. Citadel relied on the information and data provided by or on behalf of Client, including, if applicable, historical and present operations, conditions and test data, and Citadel assumed all such information and data was correct and complete. Citadel shall not be liable for any damages or losses resulting from inaccuracies of, or omissions from, information or data provided by or on behalf of the Client, any interested third-parties, or any federal, state, county, or local governmental authority, or otherwise available in the public domain.

The information contained in this Report and conclusions resulting therefrom are based solely on information available to Citadel at the time of its performance of services, and from observations and perceived conditions and materials existing on the date of Citadel's limited survey of the site, if applicable. Citadel disclaims any inaccuracy in the Report as a result of any part or parcel of property to which Citadel was not provided access, or which was concealed, including, but not limited to, wall cavities/chases, ceiling plenums, below floor finishes, crawlspaces, below grade, beneath existing structures, or behind electrical panels.

The findings and recommendations presented in this Report are based upon observations of present conditions and may not necessarily indicate future conditions. No conclusions should be construed or inferred other than those expressly stated in this Report. EXCEPT FOR ANY WARRANTIES EXPRESSLY SET FORTH IN THE PROPOSAL OR OTHER WRITTEN AGREEMENT BETWEEN CITADEL AND CLIENT, CITADEL MAKES NO WARRANTIES HEREUNDER WITH RESPECT TO ANY INFORMATION CONTAINED IN THIS REPORT, EXPRESS OR IMPLIED, AND CITADEL HEREBY DISCLAIMS ALL OTHER WARRANTIES.

All testing and remediation methods have reliability limitations and no method nor number of sampling locations can guarantee that a hazard will be discovered if contamination or other evidence of the hazard is not encountered within the performance of the services as authorized. Reliability of testing or remediation varies according to the sampling frequency and other service variables that were selected by Client. Citadel shall not be at fault or liable for any such limitations.

The information and opinions rendered in this report are exclusively for use and reliance by the Client. The information contained herein may not be used, disclosed, or copied without written permission of the Client and may not be relied upon without the written permission of Citadel.

11.0 SIGNATURES

Report Prepared by:

Scott Grasse Digitally signed by Scott Grasse Date: 2021.08.18 17:10:50-07'00'



Scott Grasse, PG, MSc
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Report Reviewed by:

Mark Drollinger Digitally signed by Mark Drollinger Date: 2021.08.18 17:11:14-07'00'

Mark Drollinger, M. Eng., CSP, CHMM
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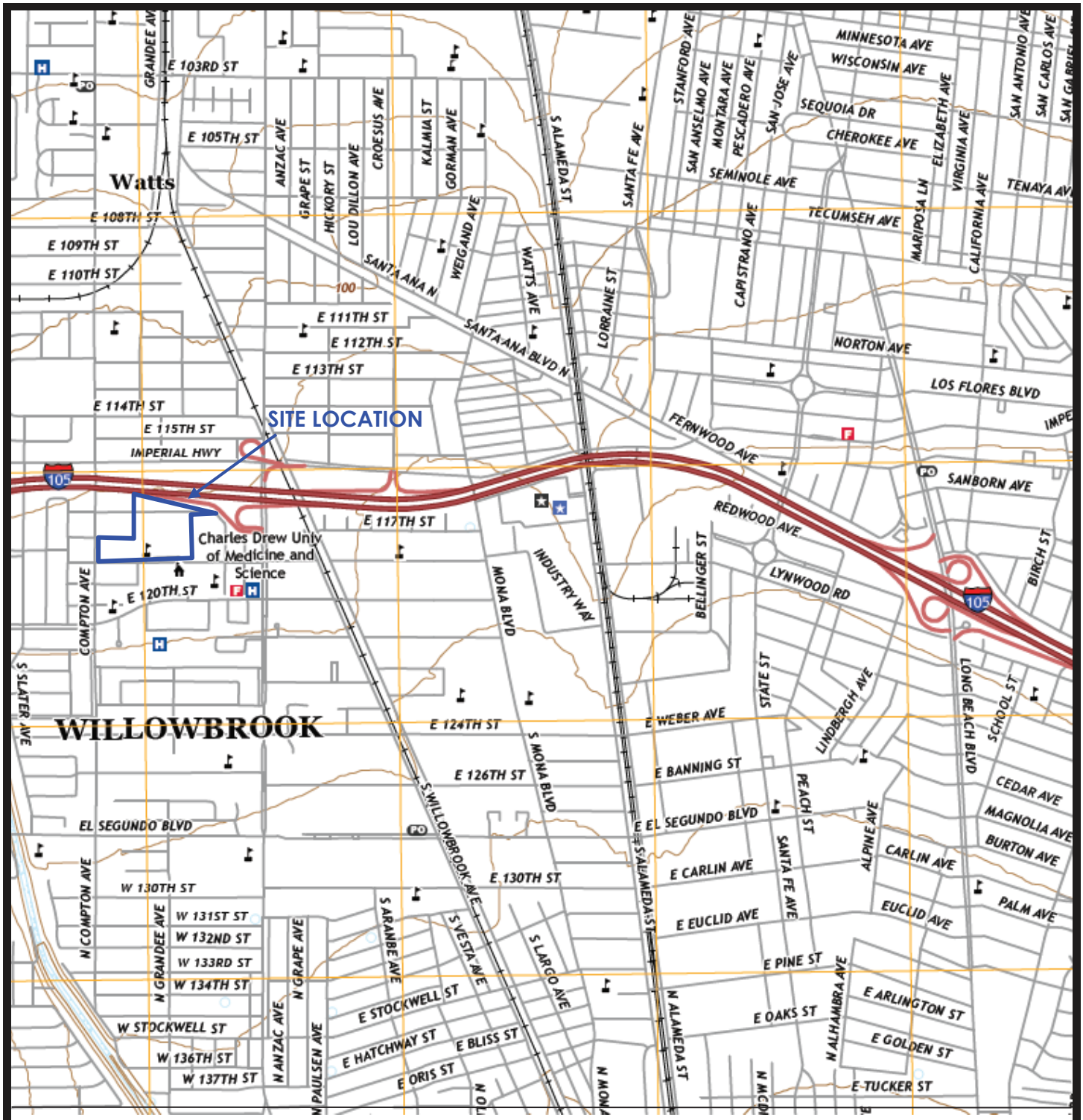
Figures



Source: USGS, Southgate Quadrangles, 7.5 Minute Series (2018)

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CDU/MLK Wellness Collaborative, LLC

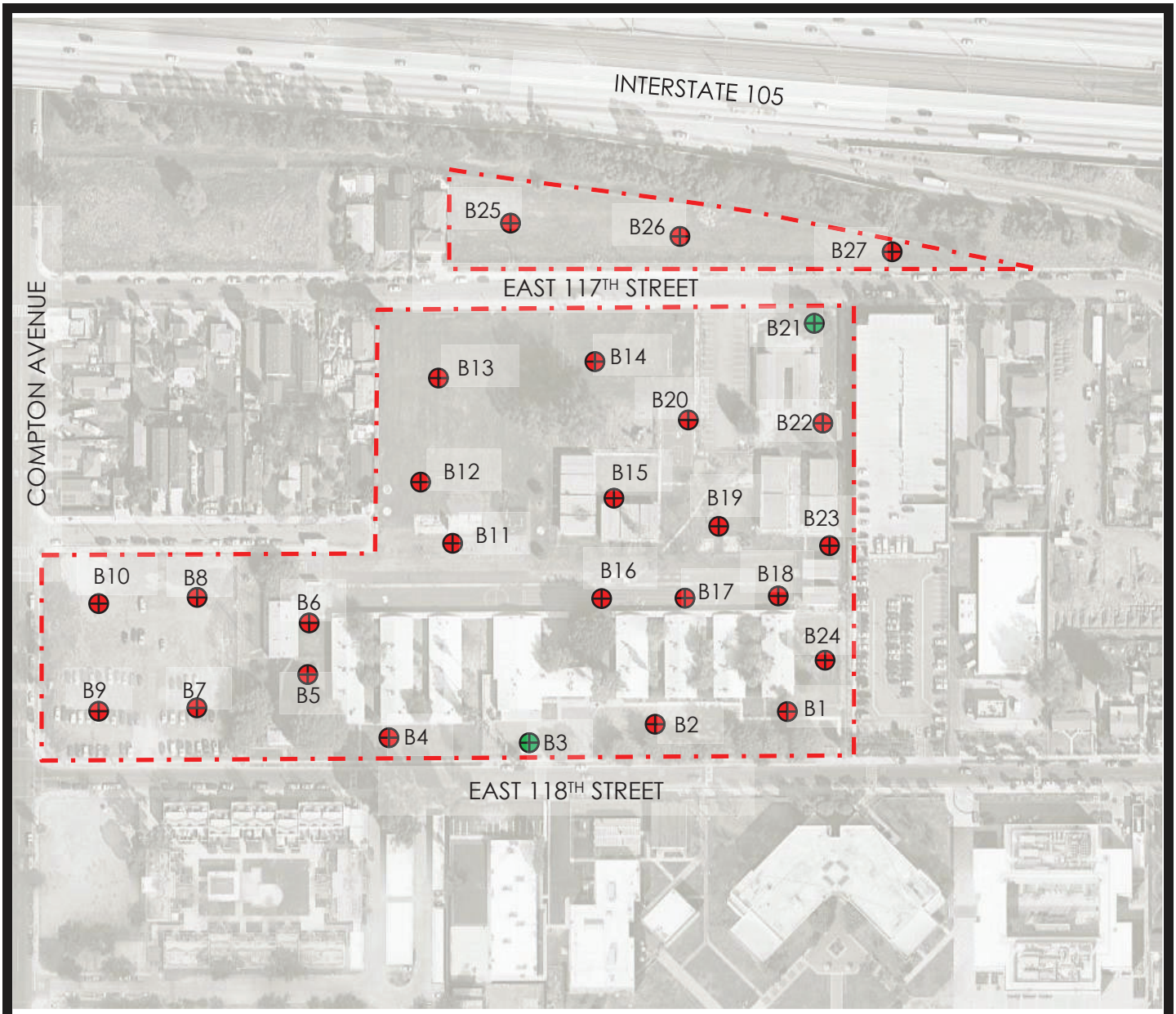
East 118th Street
Los Angeles, California

Figure 1

PROJECT NO.: 0350.1007.0

DATE: AUGUST 2021

SITE LOCATION MAP



Approximate Site Boundary

Primary boring locations (approximate, not to scale)

Shallow boring locations (approximate, not to scale)

Scale: 1 inch equals 250 feet

0 100 200 300 400

Feet

N

Source: Google Maps (2021)

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East 118th Street
Los Angeles, California

Figure 2

PROJECT NO.: 0350.1007.0

DATE: AUGUST 2021

SITE MAP

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Tables

Table 1. Volatile Organic Compounds (VOCs) in Soil Vapor
East 118th Street, Los Angeles, California, 90059

Boring ID	Sample Depth (feet)	Date Sampled	Benzene	Chloroform	Chloro-methane	Ethanol	Ethylbenzene	Isopropanol	Methylene Chloride (DCM)	Styrene	Tert-Butyl alcohol (TBA)	Tetrachloro-ethene (PCE)
			micrograms per cubic meter (ug/m3)									
B1-5V	5	7/23/21	3.0 J	<0.78	0.41 J	**110**	2.6 J	21 J	5.4 J B	2.4 J	2.6 J	3.5 J
B1-15V	15	7/23/21	2.9 J	<0.78	0.51 J	**96**	6.0 J	18 J	5.2 J B	<2.3	2.3 J	2.2 J
B2-5V	5	7/23/21	9.0 J	<0.78	<0.33	44 J	8.2 J	31 J	6.1 J B	<2.3	3.7 J	**48**
B2-15V	15	7/23/21	1.8 J	<0.78	<0.33	35 J	3.2 J	26 J	5.2 J B	<2.3	2.4 J	6.3 J
B4-5V	5	7/23/21	2.3 J	7.6 J	<0.33	43 J	6.5 J	32 J	5.4 J B	<2.3	3.6 J	9.4 J
B4-15V	15	7/23/21	1.5 J	<0.78	<0.33	42 J	21 J	33 J	5.0 J B	2.9 J	3.5 J	3.2 J
B5-5V	5	7/23/21	1.6 J	<0.78	0.39 J	51 J	2.9 J	36 J	4.6 J B	<2.3	2.9 J	2.4 J
B5-15V	15	7/23/21	2.1 J	<0.78	0.46 J	38 J	15 J	26 J	4.3 J B	<2.3	3.6 J	<1.1
B6-5V	5	7/23/21	1.2 J	1.2 J	<0.33	38 J	1.8 J	32 J	4.5 J B	<2.3	2.4 J	3.9 J
B6-15V	15	7/23/21	2.0 J	5.7 J	<0.33	39 J	15 J	27 J	4.5 J B	<2.3	1.7 J	1.7 J
B7-5V	5	7/23/21	1.3 J	<0.78	<0.33	50 J	4.0 J	30 J	5.7 J B	<2.3	4.0 J	2.1 J
B7-15V	15	7/23/21	1.4 J	<0.78	<0.33	32 J	5.2 J	28 J	5.0 J B	<2.3	<1.1	1.5 J
B8-5V	5	7/23/21	1.1 J	<0.78	<0.33	38 J	3.6 J	29 J	4.5 J B	<2.3	<1.1	1.9 J
B8-15V	15	7/23/21	1.4 J	<0.78	<0.33	39 J	5.1 J	27 J	3.9 J B	<2.3	2.5 J	1.6 J
B9-5V	5	7/23/21	1.9 J	<0.78	<0.33	42 J	5.9 J	29 J	5.0 J B	<2.3	3.5 J	2.6 J
B9-15V	15	7/23/21	1.4 J	<0.78	<0.33	43 J	4.5 J	29 J	4.8 J B	<2.3	3.3 J	3.0 J
B10-5V	5	7/23/21	3.0 J	<0.78	<0.33	41 J	3.8 J	29 J	5.1 J B	<2.3	3.0 J	10 J
B10-15V	15	7/23/21	2.3 J	<0.78	<0.33	41 J	2.9 J	29 J	4.9 J B	<2.3	2.8 J	6.4 J
B11-5V	5	7/23/21	6.3 J	<0.78	<0.33	59 J	4.6 J	34 J	3.8 J B	<2.3	6.1 J	**39**
B11-15V	15	7/23/21	5.2 J	<0.78	<0.33	53 J	3.0 J	28 J	3.2 J B	<2.3	5.0 J	14 J
B12-5V	5	7/23/21	<0.50	<0.78	<0.33	44 J	1.5 J	28 J	4.8 J B	<2.3	5.2 J	2.9 J
B12-15V	15	7/23/21	<0.50	<0.78	0.63 J	69 J	5.4 J	32 J	5.4 J B	<2.3	5.6 J	2.2 J
B13-5V	5	7/22/21	1.7 J	0.94 J	<0.33	83 J	1.3 J	19 J	4.1 J B	<2.3	3.0 J	3.0 J
B13-15V	15	7/22/21	2.1 J	<0.78	<0.33	**120**	1.8 J	31 J	4.5 J B	<2.3	6.0 J	2.5 J
B14-5V	5	7/22/21	1.0 J	<0.78	<0.33	69 J	<1.1	15 J	4.0 J B	<2.3	2.0 J	1.9 J
B14-15V	15	7/22/21	1.6 J	<0.78	0.45 J	80 J	1.3 J	18 J	4.1 J B	<2.3	1.7 J	1.1 J
B15V-5V	5	7/22/21	3.6 J	5.3 J	<0.33	91 J	2.2 J	10 J	5.3 J B	<2.3	3.3 J	7.5 J
B15V-15V	15	7/22/21	5.3 J	<0.78	0.45 J	**98**	2.5 J	12 J	5.5 J B	<2.3	2.5 J	15 J
B16-5V	5	7/23/21	3.3 J	<0.78	0.50 J	48 J	2.7 J	27 J	5.0 J B	<2.3	5.1 J	32 J
B16-15V	15	7/23/21	3.8 J	8.3 J	<0.33	57 J	2.7 J	24 J	3.6 J B	<2.3	5.4 J	19 J
B17-5V	5	7/23/21	2.4 J	<1.0	0.71 J	66 J	1.7 J	34 J	5.8 J B	<3.0	3.9 J	8.8 J
B17-15V	15	7/23/21	2.7 J	<0.78	0.42 J	47 J	2.1 J	27 J	4.5 J B	<2.3	3.6 J	8.7 J
B18-5V	5	7/23/21	2.0 J	<0.78	<0.33	49 J	2.2 J	33 J	4.4 J B	<2.3	3.8 J	8.1 J
B18-15V	15	7/23/21	7.0 J	<0.78	0.56 J	57 J	4.0 J	33 J	4.8 J B	<2.3	4.4 J	17 J
B19-5V	5	7/22/21	3.2 J	<0.78	0.46 J	**110**	2.2 J	13 J	5.6 J B	<2.3	5.1 J	3.6 J
B19-15V	15	7/22/21	3.0 J	<0.78	0.61 J	**94**	6.2 J	10 J	5.2 J B	<2.3	3.4 J	1.9 J
B20-5V	5	7/22/21	7.4 J	<0.78	<0.33	70 J	4.6 J	15 J	4.1 J B	<2.3	2.1 J	26 J
B20-15V	15	7/22/21	9.1 J	<0.78	0.57 J	78 J	3.4 J	18 J	4.6 J B	<2.3	2.9 J	23 J
B22-5V	5	7/22/21	1.7 J	<0.78	<0.33	75 J	1.6 J	17 J	4.0 J B	<2.3	2.4 J	2.2 J
B22-15V	15	7/22/21	4.3 J	5.6 J	0.42 J	87 J	9.7 J	11 J	4.0 J B	<2.3	2.4 J	2.1 J
B23-5V	5	7/22/21	2.4 J	1.2 J	<0.33	89 J	2.6 J	10 J	4.1 J B	<2.3	3.1 J	3.3 J
B23-15V	15	7/22/21	7.7 J	<0.78	0.55 J	**95**	6.7 J	12 J	4.4 J B	<2.3	4.1 J	5.4 J
B24-5V	5	7/23/21	1.0 J	1.1 J	0.42 J	53 J	1.6 J	31 J	4.4 J B	<2.3	3.6 J	<1.1
B24-15V	15	7/23/21	2.1 J	6.5 J	0.50 J	49 J	3.7 J	29 J	4.3 J B	<2.3	3.8 J	<1.1
B25-5V	5	7/23/21	1.9 J	<0.78	0.44 J	42 J	3.3 J	29 J	4.7 J B	<2.3	2.8 J	6.0 J
B25-15V	15	7/23/21	1.3 J	<0.78	<0.33	41 J	2.8 J	28 J	4.5 J B	<2.3	2.1 J	<1.1
B26-5V	5	7/23/21	0.97 J	<0.78	<0.33	42 J	1.6 J	32 J	4.5 J B	<2.3	3.1 J	<1.1
B26-15V	15	7/23/21	1.1 J	<0.78	<0.33	39 J	1.5 J	28 J	4.3 J B	<2.3	2.0 J	<1.1
B27-5V	5	7/23/21	0.70 J	1.1 J	<0.33	62 J	1.4 J	37 J	4.7 J B	<2.3	4.1 J	<1.1
B27-15V	15	7/23/21	0.96 J	2.5 J	0.50 J	61 J	1.4 J	37 J	4.7 J B	<2.3	3.4 J	<1.1
ESL - Residential Subslab/Soil Gas Cancer Risk			3.2	4.1	--	--	37	--	34	--	--	15
ESL - Residential Subslab/Soil Gas non-Cancer Hazard			100	3,400	3,100	--	35,000	--	14,000	31,000	--	1,400

Notes:

Bold = Analyte detected above the Reporting Limit.
J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
< = Analyte not detected at or above given Reporting Limit.
- Not analyzed.
-- = Criterion is less stringent than other SLs or no regulatory criterion.
ESL = Environmental Screening Levels (SFBRWQCB, 2021).
Exceeds Residential Screening Levels.

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Table 1. Volatile Organic Compounds (VOCs) in Soil Vapor
East.119th.Street,.Los.Angeles,.California,.48854

Boring ID	Sample Depth (feet)	Date Sampled	m,p-Xylene	o-Xylene	Toluene	Xylenes (total)	1,1-Dichloro-ethene	1,1-Difluoro-ethane	1,2,4-Trimethyl-benzene	1,2-Dichloropropane	Freon 11 (Trichloro-fluoro-methane)	Freon 12 (Dichloro-difluoro-methane)
			micrograms per cubic meter (ug/m3)									
B1-5V	5	7/23/21	11.0	5 1.0	**53**	1J.0	<8 J4	<8 44	<1 J	5 6.0	<1 3	2 3.0
B1-15V	15	7/23/21	**28**	11.0	**57**	**39**	<8 J4	<8 44	1 7.0	J 2.0	<1 3	2 2.0
B2-5V	5	7/23/21	**25**	<8 9J	**60**	**25**	<8 J4	<8 44	<1 J	<8 J6	<1 3	1 7.0
B2-15V	15	7/23/21	11.0	5 3.0	**45**	1J.0	<8 J4	<8 44	<1 J	5 7.0	<1 3	1 7.0
B6-5V	5	7/23/21	**28**	12.0	**41**	**40**	<8 J4	<8 44	1 4.0	5 3.0	<1 3	2 6.0
B6-15V	15	7/23/21	**91**	**33**	**44**	**120**	<8 J4	<8 44	2 6.0	J 8.0	<1 3	2 3.0
B5-5V	5	7/23/21	13.0	J 6.0	**31**	14.0	**1.0**	<8 44	<1 J	6 1.0	<1 3	1 9.0
B5-15V	15	7/23/21	**64**	21.0	**27**	**85**	**9.8**	<8 44	<1 J	3 3.0	<1 3	1 J.0
BJ-5V	5	7/23/21	9 1.0	6 1.0	**28**	12.0	<8 J4	<8 44	<1 J	3 5.0	<1 3	1 9.0
BJ-15V	15	7/23/21	**70**	**27**	**29**	**97**	<8 J4	<8 44	<1 J	3 J.0	<1 3	1 J.0
B7-5V	5	7/23/21	17.0	7 8.0	**34**	**24**	<8 J4	<8 44	<1 J	6 7.0	<1 3	1 9.0
B7-15V	15	7/23/21	**22**	9 J.0	**35**	**31**	<8 J4	<8 44	<1 J	6 J.0	<1 3	1 7.0
B9-5V	5	7/23/21	13.0	5 9.0	**46**	14.0	<8 J4	<8 44	<1 J	J 9.0	1 6.0	<8 49
B9-15V	15	7/23/21	28.0	7 3.0	**41**	**27**	<8 J4	<8 44	<1 J	5 4.0	<1 3	2 J.0
B4-5V	5	7/23/21	**28**	16.0	**32**	**42**	<8 J4	<8 44	<1 J	3 J.0	<1 3	2 7.0
B4-15V	15	7/23/21	19.0	7 7.0	**38**	**26**	<8 J4	<8 44	<1 J	6 6.0	<1 3	6 J.0
B18-5V	5	7/23/21	16.0	J 7.0	**43**	21.0	<8 J4	<8 44	<1 J	5 9.0	J 7.0	1 5.0
B18-15V	15	7/23/21	12.0	5 8.0	**42**	17.0	<8 J4	1 1.0	<1 J	J 1.0	1 7.0	6 2.0
B11-5V	5	7/23/21	13.0	<8 9J	**48**	13.0	<8 J4	<8 44	3 1.0	7 6.0	<1 3	2 5.0
B11-15V	15	7/23/21	4 9.0	6 3.0	**36**	16.0	<8 J4	<8 44	<1 J	J J.0	<1 3	2 7.0
B12-5V	5	7/23/21	6 J.0	2 3.0	**35**	J 4.0	<8 J4	<8 44	<1 J	J J.0	<1 3	2 J.0
B12-15V	15	7/23/21	15.0	4 4.0	**38**	**25**	<8 J4	<8 44	1 4.0	7 J.0	1 3.0	2 J.0
B13-5V	5	7/22/21	6 8.0	1 J.0	19.0	5 J.0	<8 J4	<8 44	<1 J	1 7.0	<1 3	1 9.0
B13-15V	15	7/22/21	5 7.0	2 2.0	**33**	7 4.0	<8 J4	<8 44	<1 J	3 2.0	<1 3	1 7.0
B16-5V	5	7/22/21	6 8.0	1 5.0	16.0	5 5.0	<8 J4	<8 44	<1 J	1 6.0	<1 3	1 7.0
B16-15V	15	7/22/21	5 1.0	2 8.0	1J.0	7 1.0	<8 J4	<8 44	<1 J	1 7.0	<1 3	1 J.0
B15V-5V	5	7/22/21	7 2.0	3 6.0	**60**	11.0	<8 J4	<8 44	<1 J	7 9.0	1 6.0	2 3.0
B15V-15V	15	7/22/21	9 5.0	3 J.0	**57**	12.0	<8 J4	<8 44	<1 J	7 5.0	<1 3	2 2.0
B1J-5V	5	7/23/21	7 3.0	5 3.0	**41**	13.0	<8 J4	<8 44	1 9.0	5 4.0	<1 3	1 9.0
B1J-15V	15	7/23/21	9 9.0	6 3.0	**46**	13.0	<8 J4	<8 44	1 9.0	J 9.0	<1 3	2 J.0
B17-5V	5	7/23/21	5 4.0	5 2.0	22.0	11.0	<8 41	<1 3	<2 1	6 3.0	<1 7	1 5.0
B17-15V	15	7/23/21	7 6.0	3 9.0	**33**	11.0	<8 J4	1 1.0	<1 J	5 7.0	<1 3	1 5.0
B19-5V	5	7/23/21	<2 7	5 3.0	**29**	5 3.0	<8 J4	1 8.0	<1 J	5 1.0	1 6.0	1 5.0
B19-15V	15	7/23/21	13.0	7 J.0	**32**	21.0	<8 J4	1 6.0	<1 J	5 6.0	1 J.0	1 4.0
B14-5V	5	7/22/21	4 1.0	3 9.0	**64**	13.0	<8 J4	<8 44	<1 J	9 J.0	<1 3	2 6.0
B14-15V	15	7/22/21	**30**	11.0	**73**	**41**	<8 J4	<8 44	<1 J	11.0	<1 3	2 2.0
B28-5V	5	7/22/21	16.0	11.0	**20**	**25**	<8 J4	<8 44	<1 J	1 J.0	1 5.0	2 1.0
B28-15V	15	7/22/21	<2 7	J 7.0	**23**	J 7.0	<8 J4	<8 44	1 7.0	1 7.0	1 4.0	2 3.0
B22-5V	5	7/22/21	5 8.0	2 6.0	17.0	7 6.0	<8 J4	<8 44	<1 J	<8 J6	<1 3	1 9.0
B22-15V	15	7/22/21	**40**	13.0	**33**	**53**	<8 J4	<8 44	<1 J	3 2.0	1 5.0	1 9.0
B23-5V	5	7/22/21	4 2.0	5 8.0	**36**	16.0	<8 J4	<8 44	<1 J	3 7.0	2 9.0	1 9.0
B23-15V	15	7/22/21	**23**	4 8.0	**41**	**32**	<8 J4	<8 44	<1 J	5 2.0	2 1.0	2 1.0
B26-5V	5	7/23/21	5 9.0	2 6.0	**29**	9 2.0	<8 J4	1 2.0	<1 J	5 8.0	<1 3	1 4.0
B26-15V	15	7/23/21	4 6.0	5 3.0	**29**	15.0	<8 J4	<8 44	<1 J	6 7.0	<1 3	1 7.0
B25-5V	5	7/23/21	12.0	5 2.0	**36**	17.0	<8 J4	<8 44	<1 J	6 3.0	<1 3	2 6.0
B25-15V	15	7/23/21	13.0	5 1.0	**31**	19.0	**1.2**	<8 44	<1 J	6 1.0	<1 3	1 5.0
B2J-5V	5	7/23/21	J J.0	3 2.0	**29**	4 9.0	<8 J4	<8 44	<1 J	3 4.0	<1 3	1 9.0
B2J-15V	15	7/23/21	J 3.0	2 9.0	**29**	4 1.0	<8 J4	<8 44	<1 J	3 7.0	<1 3	1 J.0
B27-5V	5	7/23/21	5 3.0	2 5.0	**39**	7 9.0	<8 J4	1 2.0	<1 J	7 5.0	<1 3	1 4.0
B27-15V	15	7/23/21	5 J.0	2 6.0	**36**	9 8.0	<8 J4	1 1.0	<1 J	7 1.0	<1 3	1 4.0
ESL-.Residential.Subslab/Soil.Gas.Cancer.Risk			--	--	--	--	--	--	--	4 6	--	--
ESL-.Residential.Subslab/Soil.Gas.non-Cancer.Hazard			3,588	3,588	18,888	3,588	2,688	--	--	168	--	--

Notes:

Bold.=.Analyte.detected.above.the.Reporting.Limit
0.=.Analyte.detected.above.the.laboratory.Method.Detection.Limit.but.below.the.Reporting.Limit
<.=..Analyte.not.detected.at.or.above.given.Reporting.Limit
-.Not.analyzed
--.=.Criterion.is.less.stringent.than.other.SLs.or.no.regulatory.criterion
ESL.=.Environmental.Screening.Levels.(SFBRWQCB,.2821)
..[ ].....Exceeds.Residential.Screening.Levels

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Table 2. Total Petroleum Hydrocarbons (TPH)and Volatile Organic Compounds (VOC) in Soil
East 118th Street, Los Angeles, California, 90059

Boring ID	Sample Depth (feet)	Date Sampled	Total Petroleum Hydrocarbons				Volatile Organic Compounds			
			TPH-gasoline (C6-C14)	TPH-diesel (C10-C28)	TPH-oil (C17-C44)	TPH (C6-C44)	Acetone	Ethyl-benzene	m,p-Xylene	o-Xylene
			milligrams per kilogram (mg/kg)				milligrams per kilogram (mg/kg)			
B1-5	5	7/22/2021	<3.9	**7.1**	**34.9**	**43**	**27**	0.34 J	1.9 J	0.68 J
B2-5	5	7/22/2021	<8.1	**74**	**500**	**490**	<10	<0.21	<0.49	<0.62
B4-5	5	7/22/2021	<3.8	**5.9**	**20.2**	**30**	<10	<0.22	<0.49	<0.63
B5-5	5	7/21/2021	<3.7	**5.8**	**26.5**	**32**	<9.9	<0.21	<0.48	<0.61
B6-5	5	7/21/2021	<3.9	<3.9	<3.9	<3.9	<9.8	<0.20	<0.47	<0.60
B7-5	5	7/22/2021	<3.7	**31.4**	**185.4**	**180**	<9.9	<0.21	<0.48	<0.60
B8-5	5	7/22/2021	<7.2	**96**	**501**	**500**	15 J	<0.20	<0.47	<0.60
B9-5	5	7/22/2021	<3.7	4.3 J	**15.6**	**28**	<9.5	<0.20	<0.46	<0.58
B10-5	5	7/22/2021	<3.8	**9.2**	77.7	**76**	<9.8	<0.21	<0.47	<0.60
B11-5	5	7/22/2021	<4.0	**19**	**105**	**110**	<9.8	<0.21	<0.47	<0.60
B12-5	5	7/21/2021	<3.9	3.9 J	4.9 J	**20**	<10	<0.21	<0.49	<0.62
B13-5	5	7/21/2021	<3.6	<3.6	4.4 J	**18**	<9.9	<0.21	<0.48	<0.61
B14-5	5	7/21/2021	<7.6	<7.6	**50**	**86**	<9.9	<0.21	<0.48	<0.60
B15-5	5	7/21/2021	<3.8	<3.8	<3.8	<3.8	<10	<0.21	<0.49	<0.62
B16-5	5	7/21/2021	<3.7	<3.7	<3.7	**5.8**	<9.7	<0.20	<0.47	<0.59
B17-5	5	7/21/2021	<3.6	**10**	**57**	**63**	<9.5	<0.20	<0.46	<0.58
B18-5	5	7/21/2021	<3.9	**5.6**	**5.6**	**27**	<9.6	<0.20	<0.46	<0.58
B19-5	5	7/21/2021	<4.0	4.0 J	4.8 J	**21**	<9.8	<0.20	<0.47	<0.60
B20-5	5	7/21/2021	<3.8	<3.8	<3.8	<3.8	<10	<0.21	<0.49	<0.62
B22-5	5	7/21/2021	<3.8	<3.8	<3.8	**5.4**	<10	<0.21	<0.49	<0.62
B23-5	5	7/21/2021	<3.7	<3.7	<3.7	<3.7	<9.8	<0.21	<0.47	<0.60
B24-5	5	7/21/2021	<3.8	<3.8	<3.8	<3.8	<10	<0.21	<0.48	<0.61
B25-5	5	7/22/2021	<3.6	<3.6	<3.6	**9.2**	<9.5	<0.20	<0.46	<0.58
B26-5	5	7/22/2021	<4.0	<4.0	<4.0	<4.0	<10	<0.21	<0.49	<0.62
B27-5	5	7/22/2021	<3.9	<3.9	<3.9	**12**	<9.9	<0.21	<0.47	<0.60
ESL - Residential Soil			430	260	12,000	--	61,000	5.9[1]	580	580
ESL - Construction Worker Exposure			1,800	1,100	54,000	--	270,000	540[1]	2,400	2,400
ESL - Commercial/Industrial Soil			2,000	1,200	180,000	--	670,000	26	2,500	2,500

1 Carcinogenic Target Risk = 1E-06

Notes:

Bold = Analyte detected above the Reporting Limit.
J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
< = Analyte not detected at or above given Reporting Limit
- = Not analyzed.
-- = Criterion is less stringent than other SLs or no regulatory criterion.
ESL = Environmental Screening Levels (SFBRWQCB, 2021).

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Table 3. Metals in Soil
East 118th Street, Los Angeles, California, 90059

Boring ID	Sample Depth (feet)	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molyb-denum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			milligrams per kilogram (mg/kg)																
B1-0.5	0.5	7/21/2021	<1.40	<2.35	**15.4**	<0.177	0.211 J	**4.03**	**2.71**	**6.19**	1.30 J	0.0292 J	<0.467	**2.97**	<1.92	0.359 J	<1.54	**6.87**	**11.5**
B1-5	5	7/22/2021	<1.42	<2.37	**9.33**	<0.179	<0.211	**2.74**	**1.80**	**3.40**	<1.01	0.0254 J	<0.472	**1.89**	<1.94	<0.236	<1.55	**4.45**	7.70 J
B2-0.5	0.5	7/22/2021	<1.35	<2.25	**7.80**	**0.295**	0.246 J	**1.40**	**1.38**	**2.61**	1.40 J	0.0196 J	<0.448	**1.50**	<1.84	<0.224	<1.47	**6.40**	8.70 J
B2-5	5	7/22/2021	<1.36	<2.26	**7.31**	0.220 J	<0.202	**1.10**	**1.15**	**1.91**	1.35 J	0.0211 J	<0.451	**1.33**	<1.85	<0.225	<1.48	**4.84**	6.23 J
B4-0.5	0.5	7/22/2021	<1.32	<2.20	**10.3**	**0.394**	0.343 J	**2.98**	**1.94**	**3.72**	1.31 J	0.0186 J	<0.437	**2.28**	<1.80	<0.219	<1.44	**9.37**	**10.7**
B4-5	5	7/22/2021	<1.32	<2.21	**7.48**	**0.259**	0.257 J	**1.26**	**1.43**	**2.41**	1.14 J	0.0355 J	<0.440	**1.64**	<1.81	<0.220	<1.45	**6.32**	7.37 J
B5-0.5	0.5	7/21/2021	<1.39	<2.32	**15.8**	<0.175	0.222 J	**4.79**	**2.85**	**5.57**	1.16 J	0.0214 J	<0.462	**3.20**	<1.90	0.264 J	<1.52	**7.75**	**11.1**
B5-5	5	7/21/2021	<1.38	<2.30	**12.2**	<0.174	<0.205	**3.59**	**2.36**	**5.08**	1.07 J	<0.0140	<0.457	**2.61**	<1.88	<0.229	<1.50	**6.15**	**10.4**
B6-0.5	0.5	7/21/2021	<1.29	<2.16	**15.6**	<0.163	0.251 J	**4.52**	**3.03**	**6.11**	1.38 J	0.0232 J	<0.429	**3.39**	<1.76	0.534 J	<1.41	**7.86**	**13.0**
B6-5	5	7/21/2021	<1.36	<2.28	**13.4**	<0.172	0.205 J	**3.74**	**2.58**	**5.31**	1.14 J	0.0178 J	<0.453	**2.68**	<1.86	0.470 J	<1.49	**6.63**	**10.7**
B7-0.5	0.5	7/22/2021	<1.30	<2.17	**6.04**	**0.260**	0.231 J	**1.03**	**1.12**	**2.13**	0.955 J	<0.0131	<0.431	**1.23**	<1.77	<0.216	<1.42	**5.03**	6.10 J
B7-5	5	7/22/2021	<1.31	<2.19	**4.11**	0.173 J	<0.195	0.654 J	0.671 J	**1.16**	<0.934	<0.0135	<0.435	**0.722**	<1.79	<0.218	<1.43	**3.44**	<4.94
B8-0.5	0.5	7/22/2021	<1.35	<2.25	**7.62**	**0.291**	0.257 J	**1.36**	**1.41**	**2.63**	1.16 J	<0.0137	<0.448	**1.61**	<1.84	<0.224	<1.47	**6.52**	8.59 J
B8-5	5	7/22/2021	<1.36	<2.26	**6.82**	**0.264**	0.220 J	**1.38**	**1.22**	**2.55**	1.01 J	<0.0133	<0.451	**1.60**	<1.85	<0.225	<1.48	**6.30**	7.22 J
B9-0.5	0.5	7/22/2021	<1.32	<2.21	**8.47**	**0.286**	0.282 J	**1.41**	**1.54**	**2.59**	1.33 J	<0.0135	<0.440	**1.70**	<1.81	<0.220	<1.45	**6.73**	7.40 J
B9-5	5	7/22/2021	<1.30	<2.18	**9.17**	**0.327**	0.308 J	**1.73**	**1.78**	**3.38**	1.52 J	<0.0129	<0.433	**1.96**	<1.78	<0.217	<1.43	**8.12**	**10.3**
B10-0.5	0.5	7/22/2021	<1.40	<2.33	**8.13**	**0.310**	0.250 J	**1.44**	**1.43**	**2.73**	<0.997	<0.0137	<0.464	**1.82**	<1.91	<0.232	<1.53	**7.00**	8.17 J
B10-5	5	7/22/2021	<1.38	<2.30	**13.2**	0.242 J	0.445 J	**4.10**	**2.38**	**4.76**	1.42 J	<0.0140	<0.457	**3.46**	<1.88	<0.229	<1.50	**8.45**	**17.1**
B11-0.5	0.5	7/22/2021	<1.36	<2.28	**17.6**	<0.172	0.249 J	**8.78**	**3.33**	**5.43**	1.08 J	0.0222 J	<0.453	**4.02**	<1.86	0.293 J	<1.49	**10.7**	**11.0**
B11-5	5	7/22/2021	<1.32	<2.21	**17.0**	<0.167	0.236 J	**4.38**	**2.96**	**6.31**	1.23 J	<0.0142	<0.440	**3.31**	<1.81	0.834 J	<1.45	**7.88**	**12.4**
B12-0.5	0.5	7/21/2021	<1.40	<2.33	**13.2**	<0.176	0.273 J	**3.77**	**1.12**	**3.41**	**11.3**	0.0368 J	<0.464	**2.27**	<1.91	<0.232	<1.53	**4.33**	**24.8**
B12-5	5	7/21/2021	<1.36	<2.28	**18.2**	<0.172	0.407 J	**5.99**	**1.60**	**4.87**	**15.3**	0.0596 J	<0.453	**3.55**	<1.86	<0.226	<1.49	**6.19**	**35.0**
B13-0.5	0.5	7/21/2021	<1.41	<2.36	**22.8**	<0.178	**0.524**	**6.56**	**1.81**	**5.93**	**20.5**	0.0487 J	<0.469	**3.81**	<1.93	<0.235	<1.54	**7.05**	**43.4**
B13-5	5	7/21/2021	<1.43	<2.38	**47.4**	**0.297**	**1.21**	**13.0**	**3.93**	**13.7**	**39.5**	0.0338 J	<0.474	**7.92**	<1.95	<0.237	<1.56	**15.0**	**89.7**
B14-0.5	0.5	7/21/2021	<1.36	<2.28	**52.9**	**0.350**	**1.38**	**15.2**	**4.25**	**14.9**	**69.3**	0.0587 J	<0.453	**9.18**	<1.86	<0.226	<1.49	**16.8**	**108**
B14-5	5	7/21/2021	<1.41	**2.86**	**57.4**	<0.178	**0.618**	14.3	**5.14**	**12.8**	**39.7**	0.0473 J	<0.469	**7.81**	<1.93	0.358 J	<1.54	**17.1**	46.8
B15-0.5	0.5	7/21/2021	<1.34	<2.24	**38.0**	<0.169	0.463 J	**7.58**	**3.81**	**8.40**	**11.5**	0.0346 J	<0.446	**5.28**	<1.83	0.598 J	<1.47	**12.5**	**27.6**
B15-5	5	7/21/2021	<1.29	**2.68**	**47.7**	<0.163	**0.522**	**9.39**	**4.43**	**9.78**	**13.7**	0.0632 J	<0.429	**6.37**	<1.76	0.469 J	<1.41	**15.8**	**33.6**
B16-0.5	0.5	7/21/2021	<1.40	<2.33	**41.2**	<0.176	0.389 J	**6.66**	**3.30**	**7.82**	**13.7**	0.0546 J	<0.464	**4.61**	<1.91	0.458 J	<1.53	**11.3**	**28.7**
B16-5	5	7/21/2021	<1.36	<2.28	**42.2**	<0.172	0.447 J	**7.93**	**3.98**	**9.05**	**13.6**	**0.105**	<0.453	**5.70**	<1.86	0.345 J	<1.49	**13.2**	**29.0**
B17-0.5	0.5	7/21/2021	<1.40	<2.35	**37.8**	<0.177	0.455 J	**9.32**	**3.56**	**8.74**	**17.7**	0.0369 J	<0.467	**4.98**	<1.92	0.352 J	<1.54	**11.6**	**29.6**
B17-5	5	7/21/2021	<1.41	<2.36	**31.1**	<0.178	0.343 J	**6.10**	**2.99**	**7.04**	**12.9**	0.0482 J	<0.469	**4.20**	<1.93	0.283 J	<1.54	**9.70**	**24.3**
B18-0.5	0.5	7/21/2021	<1.33	<2.22	**40.0**	<0.168	0.443 J	**8.03**	**3.96**	**9.11**	**15.8**	0.0451 J	<0.442	**5.76**	<1.81	0.358 J	<1.45	**12.8**	**30.0**
B18-5	5	7/21/2021	<1.31	<2.19	**31.7**	<0.165	0.330 J	**6.07**	**3.04**	**6.96**	**11.0**	0.0440 J	<0.435	**4.23**	<1.79	0.326 J	<1.43	**9.86**	**23.1**
B19-0.5	0.5	7/21/2021	<1.32	**2.98**	**70.6**	<0.167	**0.602**	**11.6**	**5.60**	**12.1**	**14.5**	0.0854 J	<0.440	**8.36**	<1.81	0.545 J	<1.45	**19.0**	**38.2**
B19-5	5	7/21/2021	<1.30	**2.55**	**57.8**	<0.164	**0.546**	**10.4**	**5.14**	**11.1**	**16.6**	**0.107**	<0.431	**7.30**	<1.77	0.471 J	<1.42	**16.8**	**36.7**
B20-0.5	0.5	7/21/2021	<1.35	<2.25	**7.80**	**0.295**	0.246 J	**1.40**	**1.38**	**2.61**	1.40 J	0.0196 J	<0.448	**1.50**	<1.84	<0.224	<1.47	**6.40**	8.70 J
B20-5	5	7/21/2021	<1.34	<2.23	**34.0**	<0.168	0.362 J	**6.51**	**3.27**	**7.58**	**10.6**	0.0365 J	<0.444	**4.65**	<1.82	0.360 J	<1.46	**10.9**	**23.9**
B22-0.5	0.5	7/21/2021	<1.35	**3.21**	**64.5**	<0.170	**0.685**	**12.9**	**6.32**	**14.3**	**22.9**	0.0590 J	<0.448	**9.00**	<1.84	0.531 J	<1.47	**20.6**	**46.8**
B22-5	5	7/21/2021	<1.36	<2.26	**41.3**	<0.171	0.458 J	**9.05**	**3.75**	**9.80**	**25.9**	0.0746 J	<0.451	**5.32**	<1.85	0.374 J	<1.48	**12.0**	**34.3**
B23-0.5	0.5	7/21/2021	<1.30	<2.17	**30.4**	<0.164	0.331 J	**5.92**	**2.94**	**6.94**	**10.7**	0.0418 J	<0.431	**4.25**	<1.77	0.403 J	<1.42	**9.70**	**22.8**
B23-5	5	7/21/2021	<1.30	2.32 J	**46.2**	<0.164	0.468 J	**8.44**	**4.15**	**9.77**	**17.0**	0.0255 J	<0.433	**5.95**	<1.78	0.416 J	<1.43	**13.6**	**33.0**
B24-0.5	0.5	7/21/2021	<1.40	<2.33	**38.0**	<0.176	0.438 J	**7.78**	**3.76**	**8.20**	**12.0**	0.0359 J	<0.464	**5.16**	<1.91	0.300 J	<1.53	**12.7**	**27.5**
B24-5	5	7/21/2021	<1.38	<2.30	**39.3**	<0.174	0.450 J	**7.62**	**3.83**	**9.00**	**16.6**	0.0643 J	<0.457	**5.30**	<1.88	0.479 J	<1.50	**12.1**	**31.4**
B25-0.5	0.5	7/22/2021	<1.31	<2.19	**16.4**	<0.165	0.239 J	**4.35**	**2.84**	**6.47**	1.49 J	<0.0140	<0.435	**3.14**	<1.79	0.423 J	<1.43	**7.44**	**12.7**
B25-5	5	7/22/2021	<1.40	<2.33	**18.1**	<0.176	0.262 J	**4.90**	**3.21**	**6.76**	1.39 J	<0.0133	<0.464	**3.47**	<1.91	0.327 J	<1.53	**8.50**	**13.8**
B26-0.5	0.5	7/22/2021	<1.38	<2.30	**7.37**	**0.296**	0.235 J	**1.35**	**1.38**	**2.34**	1.23 J	0.0174 J	<0.457	**1.57**	<1.88	<0.229	<1.50	**5.79**	8.03 J
B26-5	5	7/22/2021	<1.34	<2.23	**11.0**	**0.384**	0.376 J	**1.76**	**2.04**	**3.94**	1.90 J	0.0178 J	<0.444	**2.29**	<1.82	<0.222	<1.46	**9.13**	**11.0**
B27-.05	0.0	7/22/2021	<1.35	<2.25	**13.0**	**0.389**	0.446 J	**2.48**	**2.25**	**4.33**	1.82 J	0.0312 J	<0.448	**2.67**	<1.84	<0.224	<1.47	**10.4**	**12.2**
B27-5	5.0	7/22/2021	<1.36	<2.26	**10.3**	**0.389**	0.372 J	**1.92**	**1.77**	**3.33**	1.16 J	0.0459 J	<0.451	**2.16**	<1.85	<0.225	<1.48	**8.96**	**10.3**
ESL - Residential Soil			11[2]	0.067[3]	15,000[2]	1,600[1]	910[1]	--	420[1]	3,100[2]	82[4]	13[2]	390[2]	15,000[1]	390[2]	390[2]	0.78[2]	390[2]	23,000[2]
ESL - Construction Worker Exposure			50[2]	2.0[3]	3,000[2]	180[1]	110[1]	--	49[1]	14,000[2]	2,700	44[2]	1,700[2]	1,800[1]	1,700[2]	1,800[2]	3.5[2]	470[2]	110,000[2]
TTLC			500	500	10,000	75	100	2,500	8,000	2,500	1000	20	3,500	2,000	100	500	700	2400	5,000

[1] Carcinogenic Target Risk = 1E-06
[2] Noncancer Child Hazard Index = 1
[3] Arsenic background level is 12 mg/kg (DTSC, 2008)
[4] Carcinogenic Target Risk = 1E-06. DTSC SL for residential noncarcinogenic endpoint is 80 mg/kg (DTSC, 2020)

Notes:
Bold = Analyte detected above the Reporting Limit.
J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
< = Analyte not detected at or above given Reporting Limit.
- = Not analyzed.
-- = Criterion is less stringent than other SLs or no regulatory criterion.
ESL = Environmental Screening Levels (SFBRWQCB, 2021)
TTLC = Total Threshold Limit Concentration
Exceeds STLC threshold.

Table 4. Organochlorine Pesticides (OCP) in Soil
East 118th Street, Los Angeles, California, 90059

Boring/ Sample ID	Sample Depth (feet)	Date Sampled	4,4'-DDE	4,4'-DDT	Chlordane	Dieldrin	gamma-Chlordane
			micrograms per kilogram (ug/kg)				
B1-0.5	0.5	7/21/2021	<0.99	<0.95	<2.4	<0.25	<1.3
B2-0.5	0.5	7/22/2021	<0.97	<0.93	<2.3	<0.25	<1.3
B4-0.5	0.5	7/22/2021	<0.98	<0.94	<2.4	<0.25	<1.3
B5-0.5	0.5	7/21/2021	<0.99	1.4 J	<2.4	<0.25	<1.3
B6-0.5	0.5	7/21/2021	<0.98	2.0 J	<2.4	<0.25	<1.3
B7-0.5	0.5	7/22/2021	<0.99	<0.94	<2.4	**6.4**	<1.3
B8-0.5	0.5	7/22/2021	<0.98	<0.94	<2.4	0.31 J p	<1.3
B9-0.5	0.5	7/22/2021	<0.99	<0.95	<2.4	<0.25	<1.3
B10-0.5	0.5	7/22/2021	<0.97	1.0 J	<2.3	<0.25	<1.3
B11-0.5	0.5	7/22/2021	<0.99	<0.94	<2.4	<0.25	<1.3
B12-0.5	0.5	7/21/2021	<0.98	<0.94	<2.4	<0.25	<1.3
B13-0.5	0.5	7/21/2021	<0.97	<0.93	<2.3	<0.25	<1.3
B14-0.5	0.5	7/21/2021	<0.98	1.2 J p	8.4 J	<0.25	1.9 J p
B15-0.5	0.5	7/21/2021	<0.97	<0.93	<2.3	<0.25	<1.3
B16-0.5	0.5	7/21/2021	<0.97	<0.93	<2.3	<0.25	<1.3
B17-0.5	0.5	7/21/2021	<0.98	<0.94	<2.4	<0.25	<1.3
B18-0.5	0.5	7/21/2021	<0.97	<0.93	<2.3	<0.25	<1.3
B19-0.5	0.5	7/21/2021	<0.98	<0.93	6.7 J	<0.25	<1.3
B20-0.5	0.5	7/21/2021	<0.98	<0.93	<2.3	<0.25	<1.3
B22-0.5	0.5	7/21/2021	<0.97	<0.93	5.5 J	<0.25	<1.3
B23-0.5	0.5	7/21/2021	<0.98	<0.94	<2.4	<0.25	<1.3
B24-0.5	0.5	7/21/2021	<0.98	<0.93	<2.3	<0.25	<1.3
B25-0.5	0.5	7/22/2021	<0.99	2.8 J	<2.4	<0.25	<1.3
B26-0.5	0.5	7/22/2021	<0.99	1.3 J	3.4 J	<0.26	<1.3
B27-0.5	0.5	7/22/2021	<0.99	<0.95	<2.4	<0.25	<1.3
ESL - Residential Soil			1,800	1,900	480	37	480
ESL - Construction Worker Exposure			57,000	57,000	14,000	1,100	14,000
TTLC Limit			1,000	1,000	2,500	8,000	2,500

Notes:

-- = No regulatory criterion
< = Analyte not detected at or above the indicated laboratory Method Detection Limit.
J = Analyte detected above the laboratory Method Detection Limit (MDL) but below the reporting limit.
Bold = Analyte detected above the Reporting Limit.
ESL = Environmental Screening Level (SFBRWQCB 2021)
TTLC = Total Threshold Limit Concentration

Table 5. Polychlorinated Biphenyls (PCBs) in Soil
East 118th Street, Los Angeles, California, 90059

Boring ID	Sample Depth (feet)	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
			milligrams per kilogram (mg/kg)								
B3-0.5	0.5	7/21/2021	<0.039	<0.039	<0.039	<0.039	<0.039	<0.025	<0.025	<0.025	<0.025
B21-0.5	0.5	7/22/2021	<0.039	<0.039	<0.039	<0.039	<0.039	<0.025	0.035 J	<0.025	<0.025
ESL - Residential Soil			0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
ESL - Construction Worker Exposure			5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5

Notes:

Bold = Analyte detected above the Reporting Limit.

J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.

< = Analyte not detected at or above given Reporting Limit.

- = Not analyzed.

-- = Criterion is less stringent than other SLs or no regulatory criterion.

ESL = Environmental Screening Levels (SFBRWQCB, 2021).

TTLC = Total Threshold Limit Concentration

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Appendix A
Health and Safety Plan

CITADEL EHS
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CDU/MLK Wellness Collaborative, LLC
1731 East 120th Street
Los Angeles, California 90059

Health and Safety Plan

July20, 2021

Citadel Project Number 0350.1007.0

CDU/MLK Collaborative, LLC
Wellness Campus/Willowbrook Joint Development Project
East 118th Street
Los Angeles, California 90059

www.CitadelEHS.com

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1.0 SITE DESCRIPTION

Citadel EHS (Citadel) has prepared this Health and Safety Plan (HASP) for use during Phase II Subsurface Investigation activities to be conducted the CMWC Wellness Campus/Willowbrook Joint Development Project (Project) to be located north of East 118th Street in unincorporated Los Angeles County, California (Site). The Project area currently consists of an abandoned elementary school site, a triangular shaped parcel of undeveloped land north of 117th Street, and asphalt-paved surface parking areas on approximately 12.8 acres of land. The Project is bound by Century Freeway to the north; a parking structure to the east; East 118th Street and the existing CDU campus to the south; and Compton Avenue and single-family residences to the west. The Project consists of four contiguous parcels and a fifth parcel divided by 117th Street. Activities conducted under Citadel's direction at the Site will be in compliance with applicable Occupational Safety and Health Administration (OSHA) regulations, particularly those in Title 8 California Code of Regulations (CCR) 5192, and other applicable federal, state, and local laws, regulations, and statutes. A copy of this HASP will be kept onsite during scheduled field activities.

2.0 BACKGROUND

Citadel understands that the Project plans for the CMWC Wellness Campus/Willowbrook Joint Development Project will include over 300 units of deed-restricted workforce and affordable housing with over 900 units of on-campus student housing for CDU students, 40,000 square feet (SF) of community-serving retail space, 110,000 SF of community, office, research, and clinical space to support organizations including Martin Luther King Jr (MLK) Community Hospital and CDU, athletics and recreation facilities, and over 550 new structured parking spaces.

The Client has requested a response to their Requests for Proposal to provide environmental services consisting of a Phase II Subsurface Investigation of the five parcels. Citadel has completed various subsurface investigations at the adjacent CDU Campus and is well versed in the subsurface conditions within the Site vicinity.

3.0 SAFETY POLICY

Safety will be given primary importance in the planning and operation of this project. It is the policy of Citadel to conform to current OSHA standards in construction and local government agency requirements having authority over the project as regards to Citadel employees and public safety. In addition, due to COVID-19, Citadel will adhere to social distancing guidance.

Each subcontracting firm will assume primary responsibility for the safety of their own work in regard to their employees and other persons. Subcontractors will assume the duty to comply with OSHA, and all other federal, state and local regulations.

The subcontractors work will be monitored by Citadel project managers for implementation of the Citadel HASP, while adhering to their own safety program. Citadel will retain the authority and power to enforce this HASP during the progress of the work. Any deficiencies in safe work practices will be brought to the attention of the subcontractor firm's supervisor for immediate corrective action. If the subcontractor fails or refuses to take corrective action promptly a stop work order shall be issued and the subcontractor or the subcontractor employee may be removed from the project.

4.0 WORK DESCRIPTION

Subsurface Utility Clearance and Subsurface Geophysical Survey

Prior to commencing with Phase II activities, Citadel will mark proposed boring locations and contact Underground Service Alert (USA) for marking off utilities. This will be followed by a contracted geophysical survey to identify and clear the proposed boring locations for subsurface anomalies that may be present. The methods used to locate subsurface anomalies will include magnetometry and ground penetrating radar.

Soil and Soil Vapor Sampling

Based on a 2019 investigation conducted at the current CDU property, groundwater in the Site vicinity is anticipated to be between 19 and 47.5 feet bgs. Groundwater is not expected to be encountered during this investigation.

To determine a representative sampling strategy for the 12.8-acre Site, Citadel assumed that the borings would be placed at approximate 150-foot centers. Therefore, to evaluate current subsurface conditions, Citadel will advance 25 primary borings to 15 feet bgs and two shallow borings to six inches near the former pad-mounted electrical transformers. Due to the presence of existing buildings, the boring locations have been laid out to be representative of accessible areas.

The primary borings will be advanced to a depth of approximately 15 feet bgs using a direct push drill rig and the shallow borings will be advanced to six inches with a shovel. Soil samples will be collected in acetate sleeves at approximately six inches, five, 10, and 15 feet below ground surface (bgs). The soil borings will be logged by, or under the supervision of a California Professional Geologist, and soil samples collected from each boring will be field screened with a photoionization detector (PID) or equivalent monitoring device to monitor the vapor space for the presence of volatile organic compounds (VOCs).

After collection of soil samples, Citadel will install soil vapor probes in each primary boring at depths of five and 15 feet bgs. All soil vapor sampling probes will be installed in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) – Active Soil Gas Investigation and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air . Soil vapor probe tips will be placed within a sand pack at the proposed sampling depths. Approximately six inches of dry bentonite chips will be placed over the sand pack, followed by placement of hydrated bentonite. Gas tight fittings will be placed at the end of the probes at the surface. Soil vapor samples will be collected in one-liter Tedlar bags following the procedure of the Cal EPA's Active Soil Gas Investigation Authority approximately two hours after the probes have been installed.

Citadel understands that methane was encountered at the adjacent CDU campus property. Citadel will collect methane field data from each primary boring by means of a portable Landtec GEM 2000 Plus Landfill Gas Monitor (Landtec).

Following the collection of soil and soil vapor samples, the vapor collection tubing will be removed, and the borings will be backfilled with hydrated bentonite.

Approximately 102 soil samples will be submitted to the laboratory. One soil sample from each primary boring, for a total of 25 soil samples, will be analyzed for VOCs by EPA Method 8260B and total petroleum hydrocarbons (TPH) Full Range by EPA Method 8015B. The six inch and five-foot sample from each primary boring will be analyzed for Title 22 Metals using EPA Method

6010B/7471A. The six-inch sample from each primary boring will be analyzed for organochlorine pesticides by EPA Method 8081A. Based on the 2019 Phase I ESA, two pad-mounted transformers were located on-Site. The transformers have since been removed. A six-inch shallow sample will be collected at the former transformer pad and analyzed for polychlorinated biphenyls by EPA Method 8082. The remaining soil samples will be put on hold pending soil vapor results.

Fifty soil vapor samples will be analyzed for VOCs by EPA Method 8260B. If methane gas is detected, Citadel will submit vapor samples to a City of Los Angeles registered methane testing laboratory for third party verification of the methane concentrations.

5.0 KEY PROJECT PERSONNEL AND RESPONSIBILITIES

Project Manager	Scott Grasse (Citadel)
Site Safety Officer (SSO)/Project Monitor	Tim Lambert (Citadel)
Drilling Subcontractor Personnel	Samuel Miller (Choice Drilling)
Geophysical Subcontractor Personnel	Manny Frias (GPRS Geophysical)

PROJECT MANAGER

The Project Manager has the ultimate responsibility for the health and safety of personnel at the Site. The Project Manager is responsible for:

- Ensuring that project personnel review and understand the requirements of this HASP;
- Keeping on-site personnel informed of the expected hazards and appropriate protective measures at the Site; and
- Providing resources necessary for maintaining a safe and health work environment

SITE SAFETY OFFICER/PROJECT MONITOR

The SSO is responsible for enforcing the requirements of this HASP once site work begins. The SSO has the authority to immediately correct situations where noncompliance with this HASP is noted and to immediately stop work in cases where an immediate danger to site workers or the environment is perceived. Responsibilities of the SSO also include:

- Obtaining and distributing PPE and air monitoring equipment necessary for this project;
- Limiting access at the Site to authorized personnel;
- Communicating unusual or unforeseen conditions at the Site to the Project Manager;
- Supervising and monitoring the safety performance of site personnel to evaluate the effectiveness of health and safety procedures and correct deficiencies;
- Conducting daily tailgate safety meetings before each day's activities begin; and
- Conducting a site safety inspection prior to the commencement of each day's field activities.

SUBCONTRACTOR PERSONNEL

Subcontractor personnel are expected to comply with the minimum requirements specified in this HASP. Failure to do so may result in the dismissal of the subcontractor or any of the subcontractor's workers from the job site. Subcontractors may employ health and safety procedures that afford them a greater measure of personal protection than those specified in this plan as long as they do not pose additional hazards to themselves, the environment, or others working in the area.

6.0 SITE CONTROL MEASURES

The SSO or Project Manager has been designated to coordinate access and security on site.

7.0 STANDARD OPERATING PROCEDURES

GENERAL SAFETY

- Maintain good housekeeping at all times in all project work areas.
- Check the work area to determine what problems or hazards may exist.
- Designate specific areas for the proper storage of materials.
- Store tools, equipment, materials, and supplies in an orderly manner.
- Provide containers for collecting trash and other debris.
- Clean up all spills quickly.
- Report unsafe conditions or unsafe acts to your supervisor immediately.
- Report all occupational illnesses, injuries, and vehicle accidents.
- Do not wear loose clothing, wristwatches, and other loose accessories when within arm's reach of moving machinery.
- Emergency exits and evacuation areas should be clearly marked during work activities.
- Personnel fall protection is required when climbing to perform maintenance six feet or higher above ground.
- Inspect hand tools and use proper PPE.
- Ensure proper grounding and guarding of equipment.
- Keep hands and fingers out of pinch points.
- Use good ergonomic posturing when working with heavy items.

COMMUNICATION PROCEDURES

Due to the close proximity of all field crew members, the necessity for radio communication is not necessary.

The following standard hand signals will be used:

Hand drawn across throat .....Cease operation immediately
Hand gripping throat .....Out of air, cannot breathe
Grip partner's wrist or both hands around waist ..... Leave area immediately
Hands on top of head .....Need assistance
Thumbs up ..... OK, I am alright, understood
Thumbs down.....No, negative

FIELD VEHICLES

- Equip vehicles with emergency supplies and equipment.
- Maintain both a first aid kit and fire extinguisher in the field vehicle at all times.
- Utilize a rotary beacon on vehicle if working adjacent to active roadway.
- Always wear seatbelt while operating vehicle.
- Tie down loose items.

MANUAL LIFTING

- Personnel shall seek assistance when performing manual lifting tasks that appear beyond their physical capabilities.
- Assess the situation before lifting, ensure good lifting and body positioning practices, and ensure good carrying and setting down practices.

HEAT EXPOSURE

- Limit exposure to the sun or take extra precautions when the UV index rating is high.
- Take lunch and breaks in shaded areas.
- Create shade by using umbrellas, tents, and canopies.
- Wear proper clothing: long sleeved shirts with collars, long pants, and UV-protective sunglasses or safety glasses.
- Apply sunscreen generously to all exposed skin surfaces at least 20 minutes before exposure. Re-apply sunscreen at least every 2 hours, and more frequently when sweating or performing activities where sunscreen may be wiped off.
- Communicate any concerns regarding heat stress to a supervisor.
- Keep hydrated throughout the day (about 4 cups per hour).
- OHSA's Heat Index:

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91°F to 103°F	Moderate	Implement precautions and heighten awareness
103°F to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures

Utilities (Under Ground and Above Ground): Low Hazard. All boring locations will be hand drilled and stop work will be enforced if any utilities are encountered.

Biological Hazards: Low to Medium Hazard. Beware of spiders, insects and other possible animals.

Site Instability: Low to Medium Hazard. The Site will be inspected prior to equipment placement and closely monitored. Any settling of the equipment will cause the work to stop immediately.

Equipment Refueling: Low Hazard. Equipment shall not be refueled with the engine running. Cigarettes, open flames, or other ignition sources are not allowed within 50 feet of the fueling location.

Personnel Injury: Upon notification of an injury, the Project Field Leader should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement. The Project Field Leader shall initiate the appropriate first aid, and contact should be

made for an ambulance and with the designated medical facility (if required).

Fire/Explosion: The fire department shall be alerted, and all personnel moved to a safe distance from the involved area.

Other Equipment Failure: If any other equipment on site fails to operate properly, the Project Team Leader shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, work will cease until the situation is evaluated and appropriate actions taken.

COVID-19 FIELD WORK PREVENTION GUIDELINES

The following guidelines were prepared to prevent COVID-19 transmission while performing essential field work activities at the Site:

1. **Stay at least 6 feet from others** whenever possible. Avoid, or at least **minimize close contact with others**. Close contact means being within 6 feet of someone else for more than 15 minutes. By CDC guidelines, it doesn't matter if you are wearing face covering or not to be consider as being in close contact. Even with face covering, being close for extended periods of time, can greatly increase your risk of exposure. *Keep your distance even when wearing face covering or PPE.*

2. **Wear face covering in public and anytime you will interface with others**, regardless of time. *Distance and face covering are likely the two best methods available to minimize exposures.*

3. **Wash your hands frequently and avoid touching your face, nose and mouth with unwashed hands.** Also, don't be fooled into a false sense of security, believing gloves will fully protect you from COVID-19. Even when you wear gloves for protection against chemicals, you still need to wash your hands to minimize exposure.

   Be careful when putting on and taking off PPE to be sure we do not contaminate our hands in the process and then touch our face, nose or mouth with unwashed hands. In doing so, we defeat the purpose of wearing PPE. *Also, don't overdo the hand sanitizer – choose to use soap and water as much as possible.*

4. **Clean and disinfect surfaces you come into contact and minimize touching commonly used surfaces whenever possible.** Cleaning and disinfecting surfaces would not be as important if everyone were wearing face covering and washing their hands more regularly. But because individual behaviors vary quite a bit, we need to do what we can to protect ourselves and others by routinely cleaning and disinfecting the things we touch. How often will depend on how often you touch a surface or object and whether others are likely to come into contact with it as well. *Cleaning and disinfecting helps reduce exposure, but don't rely on it as a replacement for distancing, face covering and hand washing.*

5. **Monitor your own health** for COVID-19 symptoms and **stay at home**, away from others, if symptoms develop. The sooner you self-isolate, the more you lessen the chance of spreading it to others, regardless of whether it is COVID-19, the flu or some other contagion.

8.0 EXPOSURE MONITORING

The following substances are known or suspected to be on site. The primary hazards of each are identified as follow:

Substances	Concentration	Primary Hazards
Volatile Organic Compounds	Various	Ingestion, inhalation, skin
Total Petroleum Hydrocarbons	Various	Ingestion, inhalation, skin
Lead	Various	Ingestion, inhalation, skin, eye contact
Arsenic	Various	Ingestion, inhalation, skin, eye contact
Methane	Various	Inhalation

Volatile Organic Compounds (VOC)s: VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Health effects include eye, nose, and throat irritation, headaches, loss of coordination, nausea, and damage to liver, kidney, and central nervous system. Some organics are known to cause cancer in humans.

The SSO will monitor on-site worker exposure to airborne contaminants during intrusive site activities. Measurements should be taken within the breathing zones of workers. A PID will be used to monitor changes in exposure to VOCs. The PID shall be calibrated daily in the field and undergo annual maintenance including calibration by a certified provider.

Total Petroleum Hydrocarbons (TPH): A complex blend of petroleum-derived normal and branched-chain alkane, cycloalkane, alkene, and aromatic hydrocarbons. May include benzene and its derivatives, sulfur, and naphthalene. Danger of serious damage to health by prolonged exposure in contact with skin. Possible risk of harm to the unborn child. Repeated exposure may cause skin dryness or cracking. Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea, and loss of co-ordination. Continued inhalation may result in unconsciousness. Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne. Components of the product may be absorbed into the body through the skin. Prolonged and repeated contact with the product may cause skin cancer. May cause damage to the liver.

Arsenic: Acute exposure to arsenic via ingestion can cause irritation of the stomach and intestines, with symptoms such as stomachache, nausea, vomiting, and diarrhea. Other effects may include decreased production of red and white blood cells, which may cause fatigue, abnormal heart rhythm, blood-vessel damage resulting in bruising, and impaired nerve function causing a "pins and needles" sensation in the hands and feet.

Inhalation of high levels of arsenic can result in a sore throat and irritated lungs, as well as the effects described above. The exposure level that produces these effects is uncertain, but it is likely above 100 µg/m3 for brief exposure. Longer exposure at lower concentrations can lead to irritation of the skin and mucous membranes (dermatitis, conjunctivitis, pharyngitis, and rhinitis), and also to circulatory and peripheral nervous disorders. Arsenic is a known carcinogen, and inhalation of arsenic is known to cause lung cancer. A safety data sheet for arsenic is attached to this HASP.

Lead: Acute exposure to lead via ingestion or inhalation can cause impaired kidney function, high blood pressure, nervous system and neurobehavioral effects, cognitive dysfunction later in live, and subtle cognitive effects attributed to prenatal exposure. Pregnant women need to be especially concerned since exposure can have serious impact on the developing fetus.

Methane. A colorless and odorless flammable gaseous hydrocarbon (chemical formula CH_4) that is a product of biological decomposition of organic matter and of the carbonization of coal. Hi concentrations of methane can be explosive.

ACTION LEVELS AND EXPOSURE LIMITS

VOCs:
According to OSHA (29 CFR 1926.55 Appendix A, Footnote (A (3)), the composition of TPH varies greatly and thus a single Threshold Limit Value (TLV) for all types of these materials is not applicable. The OHSA Permissible Exposure Limit (PEL) for compounds commonly present in TPH-impacted soil is listed below; these concentrations must not be exceeded when working in areas where these hazardous compounds may be present:

Volatile Organic Compounds (VOCs): 100 ppm_v PEL

If these concentrations are exceeded and cannot be controlled by local methods, an evacuation of the immediate area and possibly the Site will be ordered in accordance with the evacuation route in Section 11.0.

Arsenic:
The required OSHA PEL for arsenic is no greater than 0.010 mg/m^3 averaged over an 8-hour period. PPE shall be required when working in areas where arsenic-impacted soil may be present at a concentration higher than 0.010 mg/m^3 (Cal-OSHA PEL).

Lead:
The required OSHA PEL for lead is no greater than 0.05 mg/m^3 averaged over an 8-hour period. PPE shall be required when working in areas where lead-impacted soil may be present at a concentration higher than 0.05 mg/m^3 (Cal-OSHA PEL).

Methane. The detection threshold for stop work is 20% of the lower explosive limit (LEL) which is equal to 1% by volume (10,000 ppm).

9.0 PERSONAL PROTECTIVE EQUIPMENT

The purpose of PPE is to protect employees from hazards and potential hazards they are likely to encounter during site activities. The amount and type of PPE used will be based on the nature of the hazard encountered or anticipated. Respiratory protection will be utilized when an airborne hazard has been identified using real-time air monitoring devices, or as a precautionary measure in areas designated by the SSO, elevating to level C. If this occurs, contractor personnel shall be respirator-approved.

Dermal protection, primarily in the form of chemical-resistant gloves and coveralls, will be worn whenever contact with chemically affected materials (e.g. soils, groundwater, sludge) is anticipated, without regard to the level of respiratory protection required.

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

Location	Job Function	Level of Protection
Controlled Area	All Workers	A B C (D) Other

Specific protective equipment for each level of protection is as follows:

Level A
Fully-encapsulating suit
SCBA

Disposable coveralls

Level B
Splash gear
SCBA

Level C
Splash gear
Half-face canister respirator with H_2S/VOC cartridge
Mouth/nose canister respirator
Efficiency 100 (HEPA)

Level D
Hard hat
Ear plugs
Neoprene or leather gloves - nitrile gloves
Safety vests and Glasses
Hard toe boots

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SSO OR PROJECT MANAGER.

10.0 DECONTAMINATION PROCEDURES

Despite protective procedures, personnel may come in contact with potentially hazardous compounds while performing work tasks. If so, decontamination needs to take place using an Alconox or tri-sodium phosphate (TSP), followed by a rinse with clean water. Standard decontamination procedure for levels C and D are as follows:

- Equipment drop
- Boot cover and outer glove wash and rinse
- Boot cover and out glove removal
- Suit wash and rinse
- Suit removal
- Safety boot wash and rinse
- Inner glove wash and rinse
- Respirator removal
- Inner glove removal
- Field wash of hands and face

Workers should employ only applicable steps in accordance with level of PPE worn and extent of contamination present. The SSO shall maintain adequate quantities of clean water to be used for personal decontamination (i.e. field wash of hands and face) whenever a suitable washing facility is not located in the immediate vicinity of the work area. Disposable items will be disposed of in an appropriate container. Wash and rinse water generated from decontamination activities will be handled and disposed of properly. Non-disposable items may need to be sanitized before reuse. Each site worker is responsible for the maintenance, decontamination, and sanitizing of his/her own PPE.

Used equipment may be decontaminated as follows:

- An Alconox or TSP and water solution will be used to wash the equipment.
- The equipment will then be rinsed with clean water.

Each person must follow these procedures to reduce the potential for transferring chemically affected materials offsite.

11.0 EMERGENCY PROCEDURES

In the event of an emergency, site personnel will signal distress with three blasts of a horn (a vehicle horn will be sufficient), or other predetermined signal. Communication signals, such as hand signals, must be established where communication equipment is not feasible or in areas of loud noise.

The SSO will designate evacuation routes and refuge areas to be used in the event of an emergency. Site personnel will stay upwind from vapors or smoke and upgradient from spills. Workers should exit through the established decontamination areas wherever possible. If evacuation cannot be done through an established decontamination area, site personnel will go to the nearest safe location and remove contaminated clothing there. Personnel will assemble at the predetermined refuge following evacuation and decontamination. The SSO will count and identify site personnel to verify that all personnel have been evacuated safely. Please refer to Figure 1.0 for the evacuation route and refuge location.

FIGURE 1.0 – EVACUATION ROUTE AND REFUGE AREAS

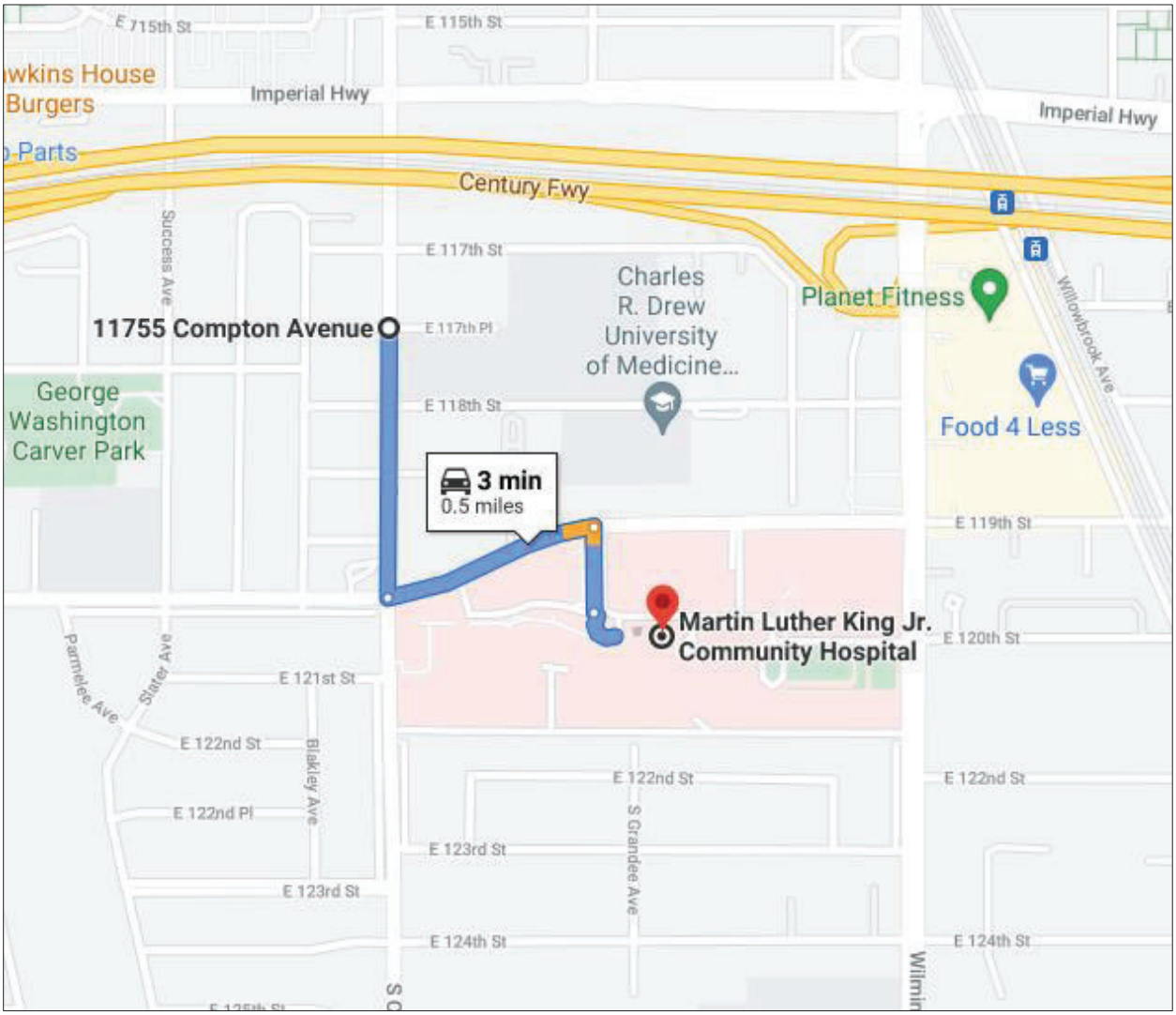


= Approximate Site Boundaries

= Refuge Areas

The designated medical facility is:

Martin Luther King Jr. Community Hospital
1680 East 120th Street
Los Angeles, California 90059
Telephone: (424) 338-8000



Directions:

Head south on Compton Avenue toward 118th Street	0.2 miles
Turn left onto East 120th Street	0.2 mile
Turn right onto Healthy Way	361 feet
Enter the traffic circle	174 feet
Destination will be on the right	

Local ambulance service is available from:

Name: Local Paramedics
Phone: 911

First-aid equipment is available in the SSO's vehicle.

List of emergency phone numbers:

Agency/Facility	Phone
Police/Fire	911
Hospital	(424) 338-800

This HASP has been prepared by:

Tim Lambert
Digitally signed by Tim Lambert
Date: 2021.08.18 17:11:36-07'00'

Tim Lambert
Staff Environmental Specialist, Engineering and Environmental Sciences

This HASP has been reviewed by:

Scott Grasse
Digitally signed by Scott Grasse
Date: 2021.08.18 17:11:52-07'00'



Scott Grasse, PG, MSc
Project Geologist, Engineering and Environmental Sciences

SIGNATURE PAGE

The following signatures indicate that this Health and Safety Plan (HASP) has been read and accepted by all site personnel.

NAME	COMPANY	SIGNATURE	DATE
Tim Lambert	Citadel EHS		7-21-21
Sam Miller	Choice Drilling		7-21-21
Darwin Brown Jr.	Choice Drilling		7-21-21
Tim Lambert	Citadel EHS		7-22-21
James Lobos	Choice Drilling		7-22-21
Jorge Saravia	Choice Drilling		7-22-21

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Appendix B
USA DigAlert Ticket

From: noreply@digalert.org
Sent: Friday, July 16, 2021 3:05 PM
To: Scott Grasse
Subject: DigAlert Confirmation for Ticket B211970507-00B

EMLCFM 02520B USAS 07/16/21 15:04:54 B211970507-00B NEW NORM POLY LREQ

Thank you for contacting Underground Service Alert of Southern California.
This is an automatically generated confirmation of your DigAlert.

For your safety please excavate carefully around the marked utility lines.

For more information regarding DigAlert's web portals, mobile apps and text messaging, please visit www.digalert.org or text Services to DIGALT (344258).

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DO NOT REPLY TO THIS EMAIL.

This is not a certified copy of the ticket.

Ticket: B211970507 Rev: 00B Created: 07/16/21 15:04 User: SGRASSE Chan: WEB

Work Start: 07/21/21 08:00 Legal Start: 07/21/21 08:00 Expires: 08/13/21 23:59
Response required: Y Priority: 2

Excavator Information
Company: CHOICE DRILLING
Co Addr: 11029 SUTTER AVENUE
City : PACOIMA State: CA Zip: 91331
Created By: SCOTT GRASSE Language: ENGLISH
Office Phone: 562-547-3061 SMS/Cell: 562-547-3061
Office Email: SGRASSE@CITADELEHS.COM

Site Contact: SCOTT GRASSE
Site Phone: 562-547-3061 Site SMS/Cell: 562-547-3061
Site Email: sgrasse@citadelehs.com

Excavation Area
State: CA County: LOS ANGELES Place: LOS ANGELES
Zip: 90061
Location: Address/Street: 1667 E 118TH ST
: X/ST1: COMPTON AVE

Delineated Method: WHITEPAINT
Work Type: VERTICAL BORINGS
Work For : CITADEL EHS
Permit: Job/Work order:
1 Year: N Boring: Y Street/Sidewalk: N Vacuum: N Explosives: N

Lat/Long
Center Generated (NAD83): 33.926875/-118.274387 33.926884/-118.269055
: 33.926058/-118.274386 33.926067/-118.269054
Excavator Provided:

Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=CC8s1w3yv1uzuuC-X

Members:

ATTDSOUTH	AT&T DISTRIBUTION - PHONE	ATT DAMAGE PREVENTION HO	510-645-2929
CITYLA	C/OF LA- ST LITE, TRF SIG, FIB	FRONT OFFICE STAFF	323-913-4744
CITYLADOT	CITY OF LA DOT - TRAF SIGNALS	MARCO GARCIA	213-473-8468
CITYLASTLI	C/OF LA- ST LITE	FRONT OFFICE STAFF	323-913-4744
LAWP3	LADWP - WATER	LOCATING OFFICE	213-367-6428
SCG3ZW	SOCALGAS DISTRIBUTION COMPTON	LEAD DISPATCHER	800-427-8894
TLC04	TORRANCE LOGISTICS - OIL	DINO ALVARADO	310-212-1842x1842

UACWHI UTILIQUEST 4 AIRTOUCH JOHN CROSSE 818-923-9298
UCHTRW_N4 UTIL/SPECTRUM HERM BCH - CATV
SPECTRUM DAMAGE ONLY 844-780-6054
USCEMW UTILIQUEST 4 SCE - METRO WEST SC EDISON PERSONNEL 800-611-1911
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From: noreply@digalert.org
Sent: Friday, July 16, 2021 3:10 PM
To: Scott Grasse
Subject: DigAlert Confirmation for Ticket B211970509-00B

EMLCFM 02539B USAS 07/16/21 15:10:02 B211970509-00B NEW NORM POLY LREQ

Thank you for contacting Underground Service Alert of Southern California.
This is an automatically generated confirmation of your DigAlert.

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DO NOT REPLY TO THIS EMAIL.

This is not a certified copy of the ticket.

Ticket: B211970509 Rev: 00B Created: 07/16/21 15:09 User: SGRASSE Chan: WEB

Work Start: 07/20/21 17:01 Legal Start: 07/20/21 17:01 Expires: 08/13/21 23:59
Response required: Y Priority: 2

Excavator Information
Company: CHOICE DRILLING
Co Addr: 11029 SUTTER AVENUE
City : PACOIMA State: CA Zip: 91331
Created By: SCOTT GRASSE Language: ENGLISH
Office Phone: 562-547-3061 SMS/Cell: 562-547-3061
Office Email: SGRASSE@CITADELEHS.COM

Site Contact: SCOTT GRASSE
Site Phone: 562-547-3061 Site SMS/Cell: 562-547-3061
Site Email: sgrasse@citadelehs.com

Excavation Area
State: CA County: LOS ANGELES Place: WILLOWBROOK
Zip: 90059
Location: Address/Street: 1679 E 117TH ST
: X/ST1: COMPTON AVE

Delineated Method: WHITEPAINT
Work Type: VERTICAL BORINGS
Work For : CITADEL EHS
Permit: Job/Work order:
1 Year: N Boring: Y Street/Sidewalk: N Vacuum: N Explosives: N

Lat/Long
Center Generated (NAD83): 33.928376/-118.246705 33.928113/-118.240399
: 33.927338/-118.246749 33.927074/-118.240442
Excavator Provided:

Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=4Ft6s3Fm6r4vuu2-l

Members:

ATTDSOUTH AT&T DISTRIBUTION - PHONE	ATT DAMAGE PREVENTION HO	510-645-2929
LAWP3 LADWP - WATER	LOCATING OFFICE	213-367-6428
PAR63A PARK WTR/LIBERTY UTIL - WATER	DISPATCHER/ANSWERING SER	562-923-0711
SCG3ZW SOCALGAS DISTRIBUTION COMPTON	LEAD DISPATCHER	800-427-8894
UCHTRW_C4 UTIL/SPECTRUM BELFLOWR - CATV		
	SPECTRUM DAMAGE ONLY	844-780-6054
USCEMW UTILIQUEST 4 SCE - METRO WEST	SC EDISON PERSONNEL	800-611-1911

USCETT83NW UTIL 4 SCE TRNS TELEC-ELEC COM

TCC 800-655-8844

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Appendix C
Geophysical Survey Summary

Job Summary

Job Date : 7/19/2021

Customer	CITADEL ENVIRONMENTAL SERVICES INC	**Phone Number**	(562) 547-3061

Billing Address	City	State	Zip
1725 VICTORY BLVD	GLENDALE	CA	91201

Job Details

Jobsite Location	1737 E 120TH ST,
City	LOS ANGELES
State	CA

WA Number	281161
Job Num	
PO Num	0350.1007.0

Lead Technician	FRIAS, MANUEL	**Phone**		**Email**	manny.frias@gprsinc.com

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS technician on this project.

EQUIPMENT USED

The following equipment was used on this project:

- Underground Scanning GPR antenna. Typically capable of detecting objects up to 8' deep or more in ideal conditions but maximum effective depth can vary widely and depends on site and soil conditions. Depth penetration is most commonly limited by moisture and clay/conductive soils. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors.
- Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors.

Work Performed

Ground Penetrating Radar Systems performed the following work on this project:

Underground Utility

The scope of work included scanning the specified area to locate underground utilities. A tracer signal was sent along any accessible metallic utility or tracer wire, and the area was scanned with GPR to locate any additional targets. The locations of any detected utilities and anomalies were marked directly at the site with paint, flags, stakes, or other appropriate means, and results were reviewed with onsite personnel unless otherwise noted.

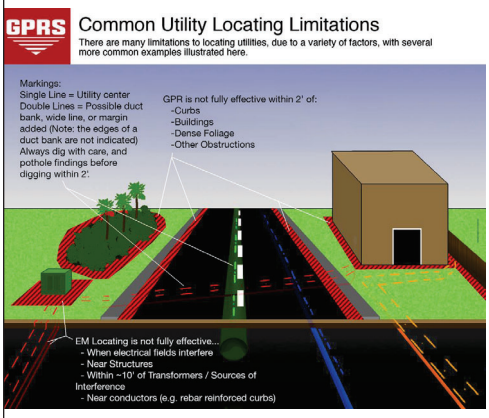
- Technician performed a subsurface investigation using electromagnetic and GPR locating equipment to clear all utilities for 21 proposed boring locations in abandoned elementary school. All conductive and non-conductive utilities located or marked out in color coat of paint any anomalies were marked out in pink.
- The effective depth of GPR will vary throughout a site depending on surface and soil conditions. In this area, the maximum effective GPR depth was approximately 6-8 feet.

Job Summary

Job Date : 7/19/2021

- Performed power and radio sweep throughout site located multiple anomalies. Performed GPR throughout site located multiple anomalies left directions in depth. Direct connected to gas line left directions in depth. Direct connected to water nonconductive unable to trace. Throughout site electrical and communication volts were severed and abandoned along with backfilled.

Pictures



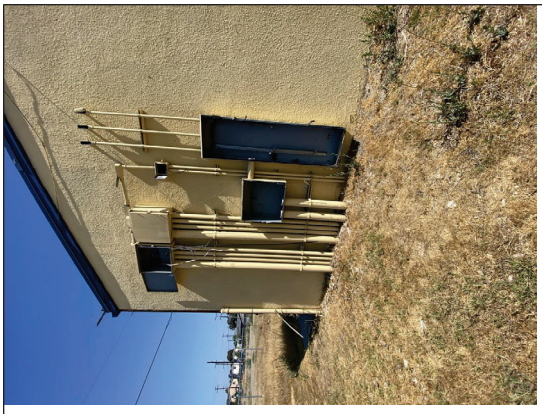
Utility Limitations





Job Summary

Job Date : 7/19/2021

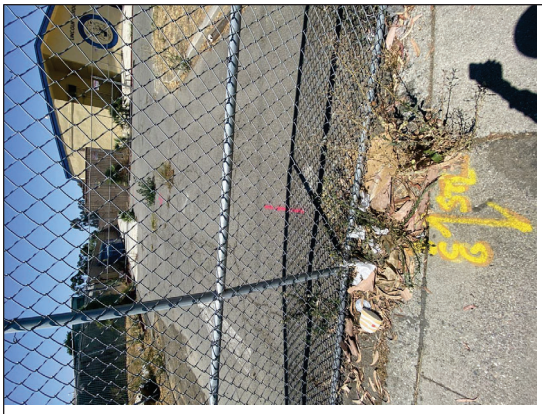


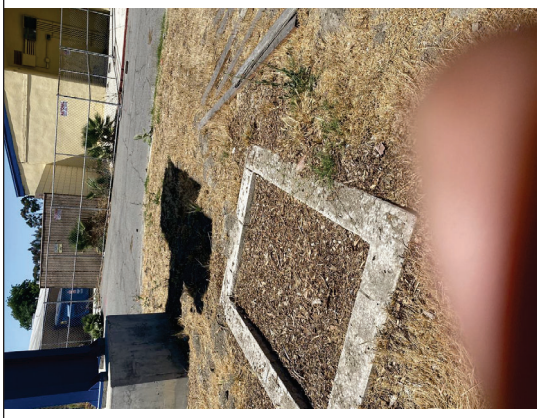




Job Summary

Job Date : 7/19/2021







Job Summary

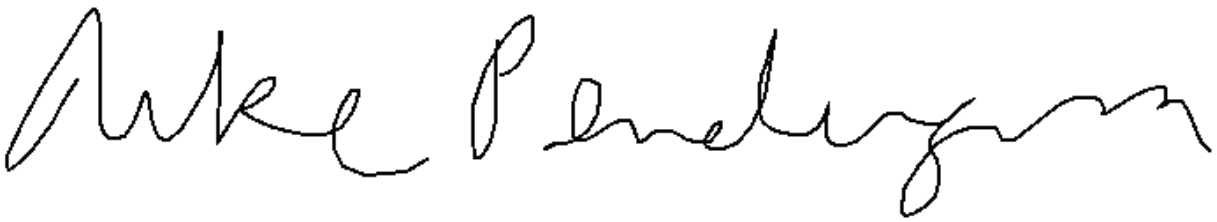
Job Date : 7/19/2021



TERMS & CONDITIONS

http://www.gprsinc.com/termsandconditions.html

SIGNATURE



Contact Name

Scott Grasse (562) 547-3061 Sgrasse@citadelehs.com

Job Summary

Job Date : 7/19/2021





UTILITY LOCATING

To ensure the overall timely success of your project, utility detection is critical to any construction project where subsurface excavation is planned. If this critical first step is ignored, the risk for injury increases, budget overruns can multiply and your schedule can be delayed.

VIDEO PIPE INSPECTION

Video Pipe Inspection (CCTV) is a service used to inspect underground water, sewer and lateral pipelines. VPI is a great tool for investigating cross-bores, structural faults and damages, and lateral line inspection.

CONCRETE IMAGING

With new build construction and renovation projects, the likelihood of needing to cut or core concrete is high. There is an inherent risk of striking rebar, conduits, and post tension cables during the cutting or coring process. Our industry-leading concrete scanning services can mitigate the risks associated with saw cutting and core drilling concrete slabs.

MAPPING & MODELING

As-built utility maps, structural as-built drawings, and facility maps are actually meant to be “as-intended” drawings as the construction process or renovations can cause deviations to the original plan. GPRS can create a comprehensive facility map that contains precise as-built conditions – giving you peace of mind by knowing exactly what exists on your property.

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Appendix D
Citadel Field Notes

CITADEL EHS
PROJECT DOCUMENTATION

CITADEL EHS

CLIENT	Charles R. Drew University	**PAGE**	1 OF 1
PROJECT NUMBER	0350.1007.0	**CITADEL REPRESENTATIVE**	Mike Pendergrass
PROJECT NAME	Phase II Subsurface Investigation	**CONTRACTOR**	GPRS
PROJECT WORK AREA	North Campus Development	**SUPERVISOR**	Scott Grasse
PROJECT LOCATION	East 118th Street		

TIME	FIELD NOTES
0745	Arrive onsite @ Abraham Lincoln E.S. Wait for rep. from Compton U.S.D.
0750	Nate Holt from CUSD arrived. We walk part of the site to determine access.
0805	GPRS Arrives. He walks site for recon.
0825	Begin marking locations. GPRS started on 118th side of the school.
1100	Moved to rear of school. A storage area has been setup on the rear of the school. Two locations on the west end of school can be accessed from 118th St. by unwiring the fence to allow drill rig access. Several locations were moved due to lack of access including on the storage area on rear of school and another located off 117th St.
1230	Completed the north side of the school. Mobilized to the site North of 117th St. There is a homeless camp located on the back side between the fence and the freeway.
1300	Complete the lot on 117th and move to the vacant lot on 118th, Compton & 117th Place.
1345	Complete w/ Geophysical Survey.

CITADEL REPRESENTATIVE:	Mike Pendergrass	**DAY:**	Monday
SIGNATURE:	Mike Pendergrass	**DATE:**	July 19, 2021

CITADEL EHS
PROJECT DOCUMENTATION

CITADEL EHS

CLIENT	Charles R. Drew University	**PAGE**	1 OF 1
PROJECT NUMBER	0350.1007.0	**CITADEL REPRESENTATIVE**	Tim Lambert Scott Grasse
PROJECT NAME	Phase II Subsurface Investigation	**CONTRACTOR**	Choice
PROJECT WORK AREA	North Campus Development	**SUPERVISOR**	Scott Grasse
PROJECT LOCATION	East 118th Street		

TIME	FIELD NOTES
0755	Citadel rep T. Lambert on site.
0810	Meet with Nate from Compton USD. Access site.
0820	Rep S Grasse arrives on site. Survey site. Setup
0840	Begin collecting shallow soil samples from accessible locations.
0920	Choice arrives on site. Begin setup at B12.
0935	Conduct safety meeting. Review HASP.
0946	Begin drilling B12.
0953	Begin setting probes.
1005	Begin drilling B13.
1039	B13 probes set. Begin drilling B14.
1059	B14 probes set. Begin drilling B15.
1135	Begin B20.
1220	Begin B18.
1246	Begin B23.
1300	Begin B22.
1328	Begin B24.
1346	Begin B17.
1401	Begin B16.
1431	Begin B19.
1455	B19 complete. Proceed to B6.
1526	Begin drilling B6.
1550	B6 complete. Begin B5.
1612	B5 complete. Begin clean up.
1640	Choice leaves site.
1700	Clean up complete. Site is secured. Citadel off site

CITADEL REPRESENTATIVE: Tim Lambert	**DAY:** Wednesday
SIGNATURE: Tim Lambert	**DATE:** 7-21-21

CITADEL EHS
PROJECT DOCUMENTATION

CITADEL EHS

CLIENT	Charles R. Drew University	**PAGE**	1 OF 1
PROJECT NUMBER	0350.1007.0	**CITADEL REPRESENTATIVE**	Scott Grasse Tim Lambert
PROJECT NAME	Phase II Subsurface Investigation	**CONTRACTOR**	Choice
PROJECT WORK AREA	North Campus Development	**SUPERVISOR**	Scott Grasse
PROJECT LOCATION	East 118th Street		

TIME	FIELD NOTES
0730	Citadel on site. Begin setup.
0800	Choice on site, Begin setup at B11.
0815	Begin drilling at B11.
0835	B11 complete. Begin mobilizing to B25.
0902	Begin drilling at B25. SG begins vapor sampling.
0926	B25 complete. Begin drilling at B26
1001	B26 complete. Begin drilling B27.
1020	B27 complete Begin mobilizing to B1.
1042	Begin drilling B2.
1110	Begin drilling B1.
1148	Begin drilling B4.
1222	Proceed to the west dirt lot and begin drilling borings B7-B10.
1345	Borings B7-B10 are complete. Begin clean up.
1400	Choice off site. Meet with SG for update.
1430	Prep samples and COC for lab pick up.
1510	Lab courier arrives on site.
1520	Samples are handed off. Begin clean up and setup for vapor sampling.
1545	Proceed to B15 and begin sampling.
1615	B15 complete. Begin sampling B19.
1648	B19 probes sampled. Begin clean up.
1703	Citadel off site.

CITADEL REPRESENTATIVE: Tim Lambert	**DAY:** Thursday
SIGNATURE: Tim Lambert	**DATE:** 7-22-21

CITADEL EHS
PROJECT DOCUMENTATION

CITADEL EHS

CLIENT	Charles R. Drew University	**PAGE**	1 OF 1
PROJECT NUMBER	0350.1007.0	**CITADEL REPRESENTATIVE**	Tim Lambert
PROJECT NAME	Phase II Subsurface Investigation	**CONTRACTOR**	
PROJECT WORK AREA	North Campus Development	**SUPERVISOR**	Scott Grasse
PROJECT LOCATION	East 118th Street		

TIME	FIELD NOTES
0730	Citadel on site. Begin setup at B1.
0745	Sampling begins at B1.
0808	B1 complete. Begin sampling B2 probes.
0826	B2 complete. Begin sampling B4 probes.
0842	Proceed to west dirt lot. Begin sampling borings B7-B10.
1000	All probes in the west lot have been sampled. Proceed to Borings B5 + B6 and begin sampling.
1040	Borings B5 + B6 are sampled. Proceed to north dirt lot.
1100	Begin sampling probes at Boring B25.
1123	Begin sampling B26 probes.
1150	Begin sampling B27 probes.
1210	Proceed to Boring B24.
1220	Begin sampling B24.
1240	Begin sampling B18.
1300	Begin sampling B17.
1320	Begin sampling B16.
1349	Begin sampling B11.
1411	Begin sampling B12.
1435	All vapor sampling complete. Begin cleanup.
1505	Lab courier arrives on site. Samples handed off.
1515	Citadel off site.

CITADEL REPRESENTATIVE: Tim Lambert	**DAY:** Friday
SIGNATURE: Tim Lambert	**DATE:** 7-23-21

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Appendix E
Photographic Log

PHOTOGRAPHIC LOG



PHOTO 2: Drilling equipment near Boring B10. looking east (7/21/22).



PHOTO 2: View from the Boring B9, looking northeast (07/19/21).

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CDU/MLK Wellness Collaborative, LLC

East 118th Street
Los Angeles, California

Citadel Project No. 0350.1007.0

PHOTOGRAPHIC LOG



PHOTO 3: Drilling operations at location B2, looking west (7/22/21).



PHOTO 4: Former transformer pad near Boring B3, looking south (7/21/21).

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CDU/MLK Wellness Collaborative, LLC

East 118th Street
Los Angeles, California

Citadel Project No. 0350.1007.0

PHOTOGRAPHIC LOG



PHOTO 5: Boring location B21 near former transformer pad, looking northwest (7/19/21).



PHOTO 6: Drilling operations at location B25, looking east (7/22/21).

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CDU/MLK Wellness Collaborative, LLC

East 118th Street
Los Angeles, California

Citadel Project No. 0350.1007.0

PHOTOGRAPHIC LOG



PHOTO 7: Boring location B23, looking west (7/19/21).



PHOTO 8: Split soil samples from 0.5, 5, 10 and 15 feet (Boring B26, 7/22/21).

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CDU/MLK Wellness Collaborative, LLC

East 118th Street
Los Angeles, California

Citadel Project No. 0350.1007.0

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Appendix F
Boring Logs

Boring I.D.	Project No.	Project	
B1	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1110	1125	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B1-0.5	1340 (7/21/21)	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
2							
3							
4							
5	B1-5	1112	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B1-10	1116	0.0	2.5Y 5/2	ML	Silt, Dry, Hard, Grayish Brown	
11							
12							
13							
14							
15	B1-15	1125	0.0	2.5Y 4/3	ML	Silt, Dry, Friable, Olive Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @ 1131

Boring I.D.	Project No.	Project	
B2	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1042	1052	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
1	B2-0.5	1044	0.0	10YR 4/2	SM	Asphalt Medium-Grained Silty Sand, Loose, Dry, Dark Grayish Brown	
2							
3							
4							
5	B2-5	1047	0.0	10YR 3/2	ML	Clayey Silt, Slightly Moist, Very Friable, Very Dark Grayish Brown	
6							
7							
8							
9							
10	B2-10	1049	0.0	2.5Y 4/3	ML	Silt, Slightly Moist, Very Friable, Olive Brown	
11							
12							
13							
14							
15	B2-15	1052	0.0	2.5Y 6/2	ML	Silt, Dry, Soft, Light Brownish Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @ 1102

Boring I.D.	Project No.	Project	
B4	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1148	1200	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil with Dry Grass	
1	B4-0.5	1305 (7/21/21)	0.0	10YR 5/3	ML	Silt, Dry, Loose, Brown	
2							
3							
4							
5	B4-5	1153	0.0	10YR 5/3	ML	Silt, Dry, Loose, Brown	
6							
7							
8							
9							
10	B4-10	1157	0.0	2.5Y 4/2	ML	Silt, Dry, Soft, Dark Grayish Brown	
11							
12							
13							
14							
15	B4-15	1200	0.0	2.5Y 6/2	ML	Silt, Dry, Loose, Light Brownish Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @ 1207

Boring I.D.	Project No.	Project	
B5	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1549	1600	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Grass	
1	B5-0.5	1404	0.0	10YR 5/4	ML	Silt, Dry, Loose, Yellowish Brown	
2							
3							
4							
5	B5-5	1551	0.0	10YR 5/3	ML	Silt, Dry, Loose, Brown	
6							
7							
8							
9							
10	B5-10	1555	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
11							
12							
13							
14							
15	B5-15	1600	0.0	2.5Y 5/2	ML	Silt, Dry, Loose, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1612

Boring I.D.	Project No.	Project	
B6	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

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Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1526	1540	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Grass	
1	B6-0.5	1527	0.0	10YR 5/4	ML	Silt, Dry, Loose, Yellowish Brown	
2							
3							
4							
5	B6-5	1530	0.0	10YR 5/2	ML	Silt, Dry, Loose, Grayish Brown	
6							
7							
8							
9							
10	B6-10	1535	0.0	2.5Y 5/2	ML	Silt, Dry, Soft, Grayish Brown	
11							
12							
13							
14							
15	B6-15	1540	0.0	10YR 6/2	ML	Silt, Dry, Loose, Light Brownish Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @ 1550

Boring I.D.	Project No.	Project	
B7	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

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Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1222	1236	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Gravelly Base Material	
1	B7-0.5	1223	0.0	2.5Y 4/2	ML	Silt, Dry, Soft, Dark Grayish Brown	
2							
3							
4							
5	B7-5	1227	0.0	2.5Y 4/2	ML	Sandy Silt, with Small Gravel, Dry, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B7-10	1233	0.0	2.5Y 5/2	ML	Silt, Slightly Moist, Friable, Grayish Brown	
11							
12							
13							
14							
15	B7-15	1236	0.0	2.5Y 6/2	SP	Poorly Graded Very Fine-Grained Sand, Dry, Loose, Light Brownish Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1242

Boring I.D.	Project No.	Project	
B8	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1244	1253	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Gravelly Base Material	
1	B8-0.5	1246	0.0	10YR 3/2	ML	Silt, Slightly Moist, Friable, Very Dark Grayish Brown	
2							
3							
4							
5	B8-5	1249	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B8-10	1251	0.0	2.5Y 4/3	ML	Silt, Slightly Moist, Friable, Olive Brown	
11							
12							
13							
14							
						Poorly Graded	
15	B8-15	1253	0.0	2.5Y 4/3	SP	Fine-Grained Sand, Dry, Loose, Olive Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs

Boring I.D.	Project No.	Project	
B9	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1319	1329	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Gravelly Base Material	
1	B9-0.5	1320	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Friable, Dark Grayish Brown	
2							
3							
4							
5	B9-5	1322	0.0	2.5Y 5/2	SP	Poorly Graded Sand, Fine-Grained, Slightly Moist, Loose, Grayish Brown	
6							
7							
8							
9							
10	B9-10	1324	0.0	5Y 4/3	ML	Silt, Slightly Moist, Friable, Olive	
11							
12							
13							
14							
15	B9-15	1329	0.0	2.5Y 5/2	SP	Poorly Graded Sand, Very Fine-Grained, Slightly Moist, Loose, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1332

Boring I.D.	Project No.	Project	
B10	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1301	1312	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Gravelly Base Material	
1	B10-0.5	1302	0.0	2.5Y 5/2	ML	Silt, with Small Gravel, Dry Loose, Grayish Brown	
2							
3							
4							
5	B10-5	1307	0.0	2.5Y 5/2	ML	Gravelly Silt, Dry Loose, Grayish Brown	
6							
7							
8							
9							
10	B10-10	1309	0.0	2.5Y 3/2	ML	Silt, Slightly Moist, Friable, Very Dark Grayish Brown	
11							
12							
13							
14							
15	B10-15	1312	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Very Friable, Dark Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1318

Boring I.D.	Project No.	Project	
B11	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	0815	0827	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Asphalt	
1	B11-0.5	0817	0.0	10YR 4/4	ML	Silt, Slightly Moist, Friable, Dark Yellowish Brown	
2							
3							
4							
5	B11-5	0820	0.0	10YR 3/2	ML	Silt, Slightly Moist, Friable, Very Dark Grayish Brown	
6							
7							
8							
9							
10	B11-10	0823	0.0	10YR 4/2	ML	Silt, Slightly Moist, Friable, Dark Grayish Brown	
11							
12							
13							
14							
15	B11-15	0826	0.0	2.5Y 5/2	ML	Silt, Dry, Loose, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @0835

Boring I.D.	Project No.	Project	
B12	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	0946	0952	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
1	B12-0.5	0845	0.0	2.5Y 5/2	SM	Bare Soil Silty Sand, Dry, Loose, Grayish Brown	
2							
3							
4							
5	B12-5	0948	0.0	5Y 4/2	ML	Silt, Loose, Dry, Olive Gray	
6							
7							
8							
9							
10	B12-10	0950	0.0	5Y 3/2	ML	Silt, Slightly Moist, Friable, Dark Olive Gray	
11							
12							
13							
14							
15	B12-15	0952	0.0	5Y 3/2	ML	Silt, Slightly Moist, Friable, Dark Olive Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1002

Boring I.D.	Project No.	Project	
B13	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1005	1025	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
1	B13-0.5	0848	0.0	2.5Y 5/2	SM	Bare Soil Silty Sand, Dry, Very Hard, Grayish Brown	
2							
3							
4							
5	B13-5	1007	0.0	2.5Y 4/4	ML	Silt, Loose, Dry, Olive Brown	
6							
7							
8							
9							
10	B13-10	1012	0.0	5Y 4/2	ML	Silt, Dry, Loose, Olive Gray	
11							
12							
13							
14							
15	B13-15	1025	0.0	5Y 4/2	ML	Silt, Dry, Loose, Olive Gray	
End Exploration at 15'							

Soil Vapor Probes set at 5' and 15' bgs @1033

Boring I.D.	Project No.	Project	
B14	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1039	1047	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B14-0.5	0854	0.0	2.5Y 6/2	ML	Silt, Dry, Loose, Light Brownish Gray	
2							
3							
4							
5	B14-5	1041	0.0	5Y 4/2	ML	Silt, Dry, Soft, Olive Gray	
6							
7							
8							
9							
10	B14-10	1043	0.0	5Y 5/2	ML	Silt, Dry, Soft, Olive Gray	
11							
12							
13							
14							
15	B14-15	1047	0.0	5Y 5/2	ML	Silt, Dry, Soft, Olive Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1055

Boring I.D.	Project No.	Project	
B15	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling		

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1059	1112	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B15-0.5	0900	0.0	2.5Y 6/2	ML	Silt, Dry, Loose, Light Brownish Gray	
2							
3							
4							
5	B15-5	1102	0.0	2.5Y 4/2	ML	Silt, Dry, Soft, Dark Grayish Brown	
6							
7							
8							
9							
10	B15-10	1107	0.0	2.5Y 6/2	SM	Silty Sand, Fine-Grained, Loose, Slightly Moist, Light Brownish Gray	
11							
12							
13							
14							
15	B15-15	1112	0.0	2.5Y 5/2	SM	Silty Sand, Fine-Grained, Loose, Slightly Moist, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1120

Boring I.D.	Project No.	Project	
B16	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1401	1410	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Asphalt	
1	B16-0.5	1402	0.0	2.5Y 4/2	ML	Silt Moist, Very Friable, Dark Grayish Brown	
2							
3							
4							
5	B16-5	1404	0.0	2.5Y 3/2	ML	Silt Moist, Very Friable, Very Dark Grayish Brown	
6							
7							
8							
9							
10	B16-10	1407	0.0	2.5Y 4/2	ML	Silt, Moist, Friable, Dark Gray Brown	
11							
12							
13							
14							
15	B16-15	1410	0.0	2.5Y 4/2	ML	Silt, Dry, Very Friable, Dark Gray Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @ 1420

Boring I.D.	Project No.	Project	
B17	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1346	1353	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Asphalt	
1	B17-0.5	1347	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Friable, Dark Grayish Brown	
2							
3							
4							
5	B17-5	1349	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Friable, Dark Grayish Brown	
6							
7							
8							
9							
10	B17-10	1351	0.0	2.5Y 4/3	ML	Silt, Slightly Moist, Friable, Olive Brown	
11							
12							
13							
14							
15	B17-15	1352	0.0	2.5Y 5/3	ML	Silt, Slightly Moist, Friable, Light Olive Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs

Boring I.D.	Project No.	Project	
B18	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1220	1235	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Asphalt	
1	B18-0.5	1223	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Dark Grayish Brown	
2							
3							
4							
5	B18-5	1225	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Dark Grayish Brown	
6							
7							
8							
9							
10	B18-10	1230	0.0	2.5Y 4/2	ML	Silt, Slightly Moist, Dark Grayish Brown	
11							
12							
13							
14							
15	B18-15	1235	0.0	2.5Y 5/2	ML	Silt, Slightly Moist, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1241

Boring I.D.	Project No.	Project	
B19	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1431	1440	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Grass	
1	B19-0.5	0905	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
2							
3							
4							
5	B19-5	1434	0.0	2.5Y 4/2	ML	Silt, Dry, Soft, Dark Grayish Brown	
6							
7							
8							
9							
10	B19-10	1437	0.0	2.5Y 5/2	ML	Silt, Dry, Soft, Grayish Brown	
11							
12							
13							
14							
15	B19-15	1439	0.0	5Y 6/2	ML	Silt, Dry, Soft, Light Olive Gray	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1453

Boring I.D.	Project No.	Project	
B20	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

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Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1135	1150	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
1	B20-0.5	1140	0.0	2.5Y 4/2	ML	Asphalt Gravelly Silt with Base Material, Dark Grayish Brown	
2							
3							
4							
5	B20-5	1143	0.0	2.5Y 4/2	SW	Well Graded Medium-Grained Sand, Loose, Slightly Moist, Dark Grayish Brown	
6							
7							
8							
9							
10	B20-10	1145	0.0	2.5Y 3/2	ML	Slightly Clayey Silt, Moist, Friable, Very Dark Grayish Brown	
11							
12							
13							
14							
15	B20-15	1150	0.0	2.5Y 5/2	CL	Silty Clay, Moist, Friable, Grayish Brown	

End Exploration at 15'

Soil Vapor Probes set at 5' and 15' bgs @1200

Boring I.D.	Project No.	Project	
B22	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

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Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1300	1310	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B22-0.5	1302	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
2							
3							
4							
5	B22-5	1304	0.0	2.5Y 4/2	ML	Sandy Silt, Slightly Moist, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B22-10	1307	0.0	2.5Y 5/2	ML	Silt, Dry, Soft, Grayish Brown	
11							
12							
13							
14							
15	B22-15	1310	0.0	2.5Y 4/2	ML	Slightly Clayey Silt, Slightly Moist, Very Friable, Dark Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1318

Boring I.D.	Project No.	Project					
B23	0350.1007.0	Phase II Subsurface Investigation					
Location			Logged By:				
East 118th Street Los Angeles, California 90059			TL				
Drilling Method	Driller		Checked By:				
Direct Push	Choice Drilling		SG				
Drilling Date	Start Time	Completion Time	Backfilling	#3 Sands	Total Depth (feet)	Depth to Groundwater (feet)	
7/21/2021	1246	1253	#8 Bentonite		15"	N/A	

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B23-0.5	0915	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
2							
3							
4							
5	B23-5	1248	0.0	2.5Y 4/2	ML	Silt, Dry, Soft, Dark Grayish Brown	
6							
7							
8							
9							
10	B23-10	1252	0.0	2.5Y 4/2	ML	Clayey Silt, Moist, Dark Grayish Brown	
11							
12							
13							
14							
15	B23-15	1253	0.0	2.5Y 4/2	ML	Clayey Silt, Moist, Dark Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1302

Boring I.D.	Project No.	Project	
B24	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

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Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/21/2021	1328	1336	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B24-0.5	0918	0.0	2.5Y 6/2	ML	Silt, Dry, Loose, Light Grayish Brown	
2							
3							
4							
5	B24-5	1331	0.0	2.5Y 5/2	ML	Silt, Dry, Soft, Grayish Brown	
6							
7							
8							
9							
10	B24-10	1333	0.0	2.5Y 6/2	ML	Silt, Dry, Soft, Light Grayish Brown	
11							
12							
13							
14							
15	B24-15	1336	0.0	2.5Y 4/3	ML	Silt, Slightly Moist, Very Friable, olive Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs

Boring I.D.	Project No.	Project	
B25	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	0902	0914	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B25-0.5	0904	0.0	10YR 5/3	ML	Sandy Silt, Dry, Loose, Brown	
2							
3							
4							
5	B25-5	0908	0.0	10YR 4/2	ML	Sandy Silt, Dry, Slightly Hard, Dark Grayish Brown	
6							
7							
8							
9							
10	B25-10	0911	0.0	10YR 3/2	ML	Silt, Slightly Moist, Friable, Very Dark Grayish Brown	
11							
12							
13							
14							
15	B25-15	0914	0.0	2.5Y 5/2	ML	Silt, Dry, Loose, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs 0920

Boring I.D.	Project No.	Project	
B26	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	0926	0947	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B26-0.5	0928	0.0	10YR 5/2	ML	Sandy Silt, Dry, Loose, Grayish Brown	
2							
3							
4							
5	B26-5	0936	0.0	10YR 4/2	ML	Sandy Silt, Dry, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B26-10	0941	0.0	10YR 4/2	ML	Silt, Slightly Moist, Very Friable, Dark Grayish Brown	
11							
12							
13							
14							
15	B26-15	0947	0.0	2.5Y 5/2	ML	Silt, Dry, Loose, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @0957

Boring I.D.	Project No.	Project	
B27	0350.1007.0	Phase II Subsurface Investigation	
Location		Logged By:	
East 118th Street Los Angeles, California 90059		TL	
Drilling Method	Driller	Checked By:	
Direct Push	Choice Drilling	SG	

Drilling Date	Start Time	Completion Time	Backfilling	Total Depth (feet)	Depth to Groundwater (feet)
7/22/2021	1001	1012	#3 Sands #8 Bentonite	15"	N/A

Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log
						Bare Soil	
1	B27-0.5	1003	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
2							
3							
4							
5	B27-5	1005	0.0	2.5Y 4/2	ML	Silt, Dry, Loose, Dark Grayish Brown	
6							
7							
8							
9							
10	B27-10	1008	0.0	2.5Y 6/2	ML	Silt, Dry, Loose, Light Grayish Brown	
11							
12							
13							
14							
15	B27-15	1012	0.0	2.5Y 5/2	ML	Silt, Dry, Soft, Grayish Brown	
						End Exploration at 15'	

Soil Vapor Probes set at 5' and 15' bgs @1020

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Appendix G
Laboratory Reports and Chain of Custody Documentation

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-65062-1
Client Project/Site: East 118th Street

For:
Citadel Environmental Services Inc
1725 Victory Blvd
Glendale, California 91201

Attn: Scott Grasse

Authorized for release by:
7/28/2021 3:29:13 PM

Erick Ovalle, Project Manager
(714)895-5494
erick.ovalle@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-65062-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-65062-1

Comments
No additional comments.

Receipt
The samples were received on 7/21/2021 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method 8260B: The initial calibration curve analyzed in batch 570-166034 was outside method criteria for the following analyte(s): Bromomethane. Sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered an estimated concentration.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-166055 and analytical batch 570-166034 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081A: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 570-165909 and analytical batch 570-166067 was outside control limits: 4,4'-DDT and Methoxychlor.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-166171 and analytical batch 570-166819 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Client Sample ID: B12-0.5 — Lab Sample ID: 570-65062-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13.2		0.515	0.229	mg/Kg	1		6010B	Total/NA
Cadmium	0.273	J	0.515	0.208	mg/Kg	1		6010B	Total/NA
Chromium	3.77		1.03	0.181	mg/Kg	1		6010B	Total/NA
Cobalt	1.12		1.03	0.234	mg/Kg	1		6010B	Total/NA
Copper	3.41		1.03	0.523	mg/Kg	1		6010B	Total/NA
Lead	11.3		5.15	0.997	mg/Kg	1		6010B	Total/NA
Nickel	2.27		0.515	0.443	mg/Kg	1		6010B	Total/NA
Vanadium	4.33		1.03	0.177	mg/Kg	1		6010B	Total/NA
Zinc	24.8		10.3	5.27	mg/Kg	1		6010B	Total/NA
Mercury	0.0368	J	0.0794	0.0129	mg/Kg	1		7471A	Total/NA

Client Sample ID: B12-5 — Lab Sample ID: 570-65062-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	3.9	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
C33-C36	4.9	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
C6-C44	20		5.0	3.9	mg/Kg	1		8015B	Total/NA
Barium	18.2		0.503	0.223	mg/Kg	1		6010B	Total/NA
Cadmium	0.407	J	0.503	0.203	mg/Kg	1		6010B	Total/NA
Chromium	5.99		1.01	0.177	mg/Kg	1		6010B	Total/NA
Cobalt	1.60		1.01	0.228	mg/Kg	1		6010B	Total/NA
Copper	4.87		1.01	0.510	mg/Kg	1		6010B	Total/NA
Lead	15.3		5.03	0.972	mg/Kg	1		6010B	Total/NA
Nickel	3.55		0.503	0.432	mg/Kg	1		6010B	Total/NA
Vanadium	6.19		1.01	0.173	mg/Kg	1		6010B	Total/NA
Zinc	35.0		10.1	5.14	mg/Kg	1		6010B	Total/NA
Mercury	0.0596	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B13-0.5 — Lab Sample ID: 570-65062-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	22.8		0.521	0.231	mg/Kg	1		6010B	Total/NA
Cadmium	0.524		0.521	0.210	mg/Kg	1		6010B	Total/NA
Chromium	6.56		1.04	0.183	mg/Kg	1		6010B	Total/NA
Cobalt	1.81		1.04	0.237	mg/Kg	1		6010B	Total/NA
Copper	5.93		1.04	0.528	mg/Kg	1		6010B	Total/NA
Lead	20.5		5.21	1.01	mg/Kg	1		6010B	Total/NA
Nickel	3.81		0.521	0.447	mg/Kg	1		6010B	Total/NA
Vanadium	7.05		1.04	0.179	mg/Kg	1		6010B	Total/NA
Zinc	43.4		10.4	5.33	mg/Kg	1		6010B	Total/NA
Mercury	0.0487	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B13-5 — Lab Sample ID: 570-65062-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C33-C36	4.4	J	4.7	3.6	mg/Kg	1		8015B	Total/NA
C6-C44	18		4.7	3.6	mg/Kg	1		8015B	Total/NA
Barium	47.4		0.526	0.233	mg/Kg	1		6010B	Total/NA
Beryllium	0.297		0.263	0.180	mg/Kg	1		6010B	Total/NA
Cadmium	1.21		0.526	0.212	mg/Kg	1		6010B	Total/NA
Chromium	13.0		1.05	0.185	mg/Kg	1		6010B	Total/NA
Cobalt	3.93		1.05	0.239	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B13-5 (Continued)

Lab Sample ID: 570-65062-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	13.7		1.05	0.534	mg/Kg	1		6010B	Total/NA
Lead	39.5		5.26	1.02	mg/Kg	1		6010B	Total/NA
Nickel	7.92		0.526	0.452	mg/Kg	1		6010B	Total/NA
Vanadium	15.0		1.05	0.181	mg/Kg	1		6010B	Total/NA
Zinc	89.7		10.5	5.38	mg/Kg	1		6010B	Total/NA
Mercury	0.0338	J	0.0877	0.0142	mg/Kg	1		7471A	Total/NA

Client Sample ID: B14-0.5

Lab Sample ID: 570-65062-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	1.2	J p	5.0	0.53	ug/Kg	1		8081A	Total/NA
4,4'-DDT	1.2	J p	5.0	0.94	ug/Kg	1		8081A	Total/NA
Chlordane	8.4	J	25	2.4	ug/Kg	1		8081A	Total/NA
gamma-Chlordane	1.9	J p	5.0	1.3	ug/Kg	1		8081A	Total/NA
Barium	52.9		0.503	0.223	mg/Kg	1		6010B	Total/NA
Beryllium	0.350		0.251	0.172	mg/Kg	1		6010B	Total/NA
Cadmium	1.38		0.503	0.203	mg/Kg	1		6010B	Total/NA
Chromium	15.2		1.01	0.177	mg/Kg	1		6010B	Total/NA
Cobalt	4.25		1.01	0.228	mg/Kg	1		6010B	Total/NA
Copper	14.9		1.01	0.510	mg/Kg	1		6010B	Total/NA
Lead	69.3		5.03	0.972	mg/Kg	1		6010B	Total/NA
Nickel	9.18		0.503	0.432	mg/Kg	1		6010B	Total/NA
Vanadium	16.8		1.01	0.173	mg/Kg	1		6010B	Total/NA
Zinc	108		10.1	5.14	mg/Kg	1		6010B	Total/NA
Mercury	0.0587	J	0.0862	0.0140	mg/Kg	1		7471A	Total/NA

Client Sample ID: B14-5

Lab Sample ID: 570-65062-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C33-C36	25		9.9	7.6	mg/Kg	2		8015B	Total/NA
C37-C40	25		9.9	7.6	mg/Kg	2		8015B	Total/NA
C41-C44	8.8	J	9.9	7.6	mg/Kg	2		8015B	Total/NA
C6-C44	86		9.9	7.6	mg/Kg	2		8015B	Total/NA
Arsenic	2.86		2.60	2.36	mg/Kg	1		6010B	Total/NA
Barium	57.4		0.521	0.231	mg/Kg	1		6010B	Total/NA
Cadmium	0.618		0.521	0.210	mg/Kg	1		6010B	Total/NA
Chromium	14.3	F1	1.04	0.183	mg/Kg	1		6010B	Total/NA
Cobalt	5.14		1.04	0.237	mg/Kg	1		6010B	Total/NA
Copper	12.8		1.04	0.528	mg/Kg	1		6010B	Total/NA
Lead	39.7	F1	5.21	1.01	mg/Kg	1		6010B	Total/NA
Nickel	7.81		0.521	0.447	mg/Kg	1		6010B	Total/NA
Silver	0.358	J	1.04	0.235	mg/Kg	1		6010B	Total/NA
Vanadium	17.1		1.04	0.179	mg/Kg	1		6010B	Total/NA
Zinc	46.8	F1	10.4	5.33	mg/Kg	1		6010B	Total/NA
Mercury	0.0473	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B15-0.5

Lab Sample ID: 570-65062-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	38.0		0.495	0.219	mg/Kg	1		6010B	Total/NA
Cadmium	0.463	J	0.495	0.200	mg/Kg	1		6010B	Total/NA
Chromium	7.58		0.990	0.174	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B15-0.5 (Continued)

Lab Sample ID: 570-65062-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.81		0.990	0.225	mg/Kg	1		6010B	Total/NA
Copper	8.40		0.990	0.502	mg/Kg	1		6010B	Total/NA
Lead	11.5		4.95	0.957	mg/Kg	1		6010B	Total/NA
Nickel	5.28		0.495	0.425	mg/Kg	1		6010B	Total/NA
Silver	0.598	J	0.990	0.223	mg/Kg	1		6010B	Total/NA
Vanadium	12.5		0.990	0.170	mg/Kg	1		6010B	Total/NA
Zinc	27.6		9.90	5.06	mg/Kg	1		6010B	Total/NA
Mercury	0.0346	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B15-5

Lab Sample ID: 570-65062-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.68		2.38	2.16	mg/Kg	1		6010B	Total/NA
Barium	47.7		0.476	0.211	mg/Kg	1		6010B	Total/NA
Cadmium	0.522		0.476	0.192	mg/Kg	1		6010B	Total/NA
Chromium	9.39		0.952	0.167	mg/Kg	1		6010B	Total/NA
Cobalt	4.43		0.952	0.216	mg/Kg	1		6010B	Total/NA
Copper	9.78		0.952	0.483	mg/Kg	1		6010B	Total/NA
Lead	13.7		4.76	0.921	mg/Kg	1		6010B	Total/NA
Nickel	6.37		0.476	0.409	mg/Kg	1		6010B	Total/NA
Silver	0.469	J	0.952	0.214	mg/Kg	1		6010B	Total/NA
Vanadium	15.8		0.952	0.163	mg/Kg	1		6010B	Total/NA
Zinc	33.6		9.52	4.87	mg/Kg	1		6010B	Total/NA
Mercury	0.0632	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B20-0.5

Lab Sample ID: 570-65062-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	57.0		0.481	0.213	mg/Kg	1		6010B	Total/NA
Cadmium	0.445	J	0.481	0.194	mg/Kg	1		6010B	Total/NA
Chromium	8.12		0.962	0.169	mg/Kg	1		6010B	Total/NA
Cobalt	4.07		0.962	0.219	mg/Kg	1		6010B	Total/NA
Copper	8.86		0.962	0.488	mg/Kg	1		6010B	Total/NA
Lead	11.6		4.81	0.930	mg/Kg	1		6010B	Total/NA
Nickel	5.66		0.481	0.413	mg/Kg	1		6010B	Total/NA
Silver	0.312	J	0.962	0.217	mg/Kg	1		6010B	Total/NA
Vanadium	13.2		0.962	0.165	mg/Kg	1		6010B	Total/NA
Zinc	28.6		9.62	4.92	mg/Kg	1		6010B	Total/NA
Mercury	0.0336	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B20-5

Lab Sample ID: 570-65062-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	34.0		0.493	0.218	mg/Kg	1		6010B	Total/NA
Cadmium	0.362	J	0.493	0.199	mg/Kg	1		6010B	Total/NA
Chromium	6.51		0.985	0.173	mg/Kg	1		6010B	Total/NA
Cobalt	3.27		0.985	0.224	mg/Kg	1		6010B	Total/NA
Copper	7.58		0.985	0.500	mg/Kg	1		6010B	Total/NA
Lead	10.6		4.93	0.953	mg/Kg	1		6010B	Total/NA
Nickel	4.65		0.493	0.423	mg/Kg	1		6010B	Total/NA
Silver	0.360	J	0.985	0.222	mg/Kg	1		6010B	Total/NA
Vanadium	10.9		0.985	0.169	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B20-5 (Continued)

Lab Sample ID: 570-65062-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	23.9		9.85	5.04	mg/Kg	1		6010B	Total/NA
Mercury	0.0365	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B18-0.5

Lab Sample ID: 570-65062-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	2.3	J	4.9	0.53	ug/Kg	1		8081A	Total/NA
Barium	40.0		0.490	0.217	mg/Kg	1		6010B	Total/NA
Cadmium	0.443	J	0.490	0.198	mg/Kg	1		6010B	Total/NA
Chromium	8.03		0.980	0.172	mg/Kg	1		6010B	Total/NA
Cobalt	3.96		0.980	0.223	mg/Kg	1		6010B	Total/NA
Copper	9.11		0.980	0.497	mg/Kg	1		6010B	Total/NA
Lead	15.8		4.90	0.948	mg/Kg	1		6010B	Total/NA
Nickel	5.76		0.490	0.421	mg/Kg	1		6010B	Total/NA
Silver	0.358	J	0.980	0.221	mg/Kg	1		6010B	Total/NA
Vanadium	12.8		0.980	0.168	mg/Kg	1		6010B	Total/NA
Zinc	30.0		9.80	5.01	mg/Kg	1		6010B	Total/NA
Mercury	0.0451	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B18-5

Lab Sample ID: 570-65062-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	5.6		5.0	3.9	mg/Kg	1		8015B	Total/NA
C33-C36	4.5	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
C6-C44	27		5.0	3.9	mg/Kg	1		8015B	Total/NA
Barium	31.7		0.483	0.214	mg/Kg	1		6010B	Total/NA
Cadmium	0.330	J	0.483	0.195	mg/Kg	1		6010B	Total/NA
Chromium	6.07		0.966	0.170	mg/Kg	1		6010B	Total/NA
Cobalt	3.04		0.966	0.220	mg/Kg	1		6010B	Total/NA
Copper	6.96		0.966	0.490	mg/Kg	1		6010B	Total/NA
Lead	11.0		4.83	0.934	mg/Kg	1		6010B	Total/NA
Nickel	4.23		0.483	0.415	mg/Kg	1		6010B	Total/NA
Silver	0.326	J	0.966	0.218	mg/Kg	1		6010B	Total/NA
Vanadium	9.86		0.966	0.166	mg/Kg	1		6010B	Total/NA
Zinc	23.1		9.66	4.94	mg/Kg	1		6010B	Total/NA
Mercury	0.0440	J	0.0794	0.0129	mg/Kg	1		7471A	Total/NA

Client Sample ID: B23-0.5

Lab Sample ID: 570-65062-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	30.4		0.478	0.212	mg/Kg	1		6010B	Total/NA
Cadmium	0.331	J	0.478	0.193	mg/Kg	1		6010B	Total/NA
Chromium	5.92		0.957	0.168	mg/Kg	1		6010B	Total/NA
Cobalt	2.94		0.957	0.218	mg/Kg	1		6010B	Total/NA
Copper	6.94		0.957	0.485	mg/Kg	1		6010B	Total/NA
Lead	10.7		4.78	0.925	mg/Kg	1		6010B	Total/NA
Nickel	4.25		0.478	0.411	mg/Kg	1		6010B	Total/NA
Silver	0.403	J	0.957	0.216	mg/Kg	1		6010B	Total/NA
Vanadium	9.70		0.957	0.164	mg/Kg	1		6010B	Total/NA
Zinc	22.8		9.57	4.89	mg/Kg	1		6010B	Total/NA
Mercury	0.0418	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Client Sample ID: B23-5 — Lab Sample ID: 570-65062-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.32	J	2.40	2.18	mg/Kg	1		6010B	Total/NA
Barium	46.2		0.481	0.213	mg/Kg	1		6010B	Total/NA
Cadmium	0.468	J	0.481	0.194	mg/Kg	1		6010B	Total/NA
Chromium	8.44		0.962	0.169	mg/Kg	1		6010B	Total/NA
Cobalt	4.15		0.962	0.219	mg/Kg	1		6010B	Total/NA
Copper	9.77		0.962	0.488	mg/Kg	1		6010B	Total/NA
Lead	17.0		4.81	0.930	mg/Kg	1		6010B	Total/NA
Nickel	5.95		0.481	0.413	mg/Kg	1		6010B	Total/NA
Silver	0.416	J	0.962	0.217	mg/Kg	1		6010B	Total/NA
Vanadium	13.6		0.962	0.165	mg/Kg	1		6010B	Total/NA
Zinc	33.0		9.62	4.92	mg/Kg	1		6010B	Total/NA
Mercury	0.0255	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B22-0.5 — Lab Sample ID: 570-65062-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlordane	5.5	J	25	2.3	ug/Kg	1		8081A	Total/NA
Arsenic	3.21		2.49	2.25	mg/Kg	1		6010B	Total/NA
Barium	64.5		0.498	0.221	mg/Kg	1		6010B	Total/NA
Cadmium	0.685		0.498	0.201	mg/Kg	1		6010B	Total/NA
Chromium	12.9		0.995	0.175	mg/Kg	1		6010B	Total/NA
Cobalt	6.32		0.995	0.226	mg/Kg	1		6010B	Total/NA
Copper	14.3		0.995	0.505	mg/Kg	1		6010B	Total/NA
Lead	22.9		4.98	0.962	mg/Kg	1		6010B	Total/NA
Nickel	9.00		0.498	0.427	mg/Kg	1		6010B	Total/NA
Silver	0.531	J	0.995	0.224	mg/Kg	1		6010B	Total/NA
Vanadium	20.6		0.995	0.171	mg/Kg	1		6010B	Total/NA
Zinc	46.8		9.95	5.09	mg/Kg	1		6010B	Total/NA
Mercury	0.0590	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B22-5 — Lab Sample ID: 570-65062-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C6-C44	5.4		4.9	3.8	mg/Kg	1		8015B	Total/NA
Barium	41.3		0.500	0.222	mg/Kg	1		6010B	Total/NA
Cadmium	0.458	J	0.500	0.202	mg/Kg	1		6010B	Total/NA
Chromium	9.05		1.00	0.176	mg/Kg	1		6010B	Total/NA
Cobalt	3.75		1.00	0.227	mg/Kg	1		6010B	Total/NA
Copper	9.80		1.00	0.507	mg/Kg	1		6010B	Total/NA
Lead	25.9		5.00	0.967	mg/Kg	1		6010B	Total/NA
Nickel	5.32		0.500	0.429	mg/Kg	1		6010B	Total/NA
Silver	0.374	J	1.00	0.225	mg/Kg	1		6010B	Total/NA
Vanadium	12.0		1.00	0.172	mg/Kg	1		6010B	Total/NA
Zinc	34.3		10.0	5.11	mg/Kg	1		6010B	Total/NA
Mercury	0.0746	J	0.0877	0.0142	mg/Kg	1		7471A	Total/NA

Client Sample ID: B24-0.5 — Lab Sample ID: 570-65062-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	38.0		0.515	0.229	mg/Kg	1		6010B	Total/NA
Cadmium	0.438	J	0.515	0.208	mg/Kg	1		6010B	Total/NA
Chromium	7.78		1.03	0.181	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B24-0.5 (Continued)

Lab Sample ID: 570-65062-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.76		1.03	0.234	mg/Kg	1		6010B	Total/NA
Copper	8.20		1.03	0.523	mg/Kg	1		6010B	Total/NA
Lead	12.0		5.15	0.997	mg/Kg	1		6010B	Total/NA
Nickel	5.16		0.515	0.443	mg/Kg	1		6010B	Total/NA
Silver	0.300	J	1.03	0.232	mg/Kg	1		6010B	Total/NA
Vanadium	12.7		1.03	0.177	mg/Kg	1		6010B	Total/NA
Zinc	27.5		10.3	5.27	mg/Kg	1		6010B	Total/NA
Mercury	0.0359	J	0.0862	0.0140	mg/Kg	1		7471A	Total/NA

Client Sample ID: B24-5

Lab Sample ID: 570-65062-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	39.3		0.508	0.225	mg/Kg	1		6010B	Total/NA
Cadmium	0.450	J	0.508	0.205	mg/Kg	1		6010B	Total/NA
Chromium	7.62		1.02	0.178	mg/Kg	1		6010B	Total/NA
Cobalt	3.83		1.02	0.231	mg/Kg	1		6010B	Total/NA
Copper	9.00		1.02	0.515	mg/Kg	1		6010B	Total/NA
Lead	16.6		5.08	0.982	mg/Kg	1		6010B	Total/NA
Nickel	5.30		0.508	0.436	mg/Kg	1		6010B	Total/NA
Silver	0.479	J	1.02	0.229	mg/Kg	1		6010B	Total/NA
Vanadium	12.1		1.02	0.174	mg/Kg	1		6010B	Total/NA
Zinc	31.4		10.2	5.19	mg/Kg	1		6010B	Total/NA
Mercury	0.0643	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B17-0.5

Lab Sample ID: 570-65062-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	37.8		0.518	0.230	mg/Kg	1		6010B	Total/NA
Cadmium	0.455	J	0.518	0.209	mg/Kg	1		6010B	Total/NA
Chromium	9.32		1.04	0.182	mg/Kg	1		6010B	Total/NA
Cobalt	3.56		1.04	0.236	mg/Kg	1		6010B	Total/NA
Copper	8.74		1.04	0.525	mg/Kg	1		6010B	Total/NA
Lead	17.7		5.18	1.00	mg/Kg	1		6010B	Total/NA
Nickel	4.98		0.518	0.445	mg/Kg	1		6010B	Total/NA
Silver	0.352	J	1.04	0.233	mg/Kg	1		6010B	Total/NA
Vanadium	11.6		1.04	0.178	mg/Kg	1		6010B	Total/NA
Zinc	29.6		10.4	5.30	mg/Kg	1		6010B	Total/NA
Mercury	0.0369	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B17-5

Lab Sample ID: 570-65062-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	10		4.7	3.6	mg/Kg	1		8015B	Total/NA
C29-C32	18		4.7	3.6	mg/Kg	1		8015B	Total/NA
C33-C36	17		4.7	3.6	mg/Kg	1		8015B	Total/NA
C37-C40	12		4.7	3.6	mg/Kg	1		8015B	Total/NA
C6-C44	63		4.7	3.6	mg/Kg	1		8015B	Total/NA
Barium	31.1		0.521	0.231	mg/Kg	1		6010B	Total/NA
Cadmium	0.343	J	0.521	0.210	mg/Kg	1		6010B	Total/NA
Chromium	6.10		1.04	0.183	mg/Kg	1		6010B	Total/NA
Cobalt	2.99		1.04	0.237	mg/Kg	1		6010B	Total/NA
Copper	7.04		1.04	0.528	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B17-5 (Continued)

Lab Sample ID: 570-65062-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12.9		5.21	1.01	mg/Kg	1		6010B	Total/NA
Nickel	4.20		0.521	0.447	mg/Kg	1		6010B	Total/NA
Silver	0.283	J	1.04	0.235	mg/Kg	1		6010B	Total/NA
Vanadium	9.70		1.04	0.179	mg/Kg	1		6010B	Total/NA
Zinc	24.3		10.4	5.33	mg/Kg	1		6010B	Total/NA
Mercury	0.0482	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B16-0.5

Lab Sample ID: 570-65062-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	41.2		0.515	0.229	mg/Kg	1		6010B	Total/NA
Cadmium	0.389	J	0.515	0.208	mg/Kg	1		6010B	Total/NA
Chromium	6.66		1.03	0.181	mg/Kg	1		6010B	Total/NA
Cobalt	3.30		1.03	0.234	mg/Kg	1		6010B	Total/NA
Copper	7.82		1.03	0.523	mg/Kg	1		6010B	Total/NA
Lead	13.7		5.15	0.997	mg/Kg	1		6010B	Total/NA
Nickel	4.61		0.515	0.443	mg/Kg	1		6010B	Total/NA
Silver	0.458	J	1.03	0.232	mg/Kg	1		6010B	Total/NA
Vanadium	11.3		1.03	0.177	mg/Kg	1		6010B	Total/NA
Zinc	28.7		10.3	5.27	mg/Kg	1		6010B	Total/NA
Mercury	0.0546	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B16-5

Lab Sample ID: 570-65062-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C6-C44	5.8		4.8	3.7	mg/Kg	1		8015B	Total/NA
Barium	42.2		0.503	0.223	mg/Kg	1		6010B	Total/NA
Cadmium	0.447	J	0.503	0.203	mg/Kg	1		6010B	Total/NA
Chromium	7.93		1.01	0.177	mg/Kg	1		6010B	Total/NA
Cobalt	3.98		1.01	0.228	mg/Kg	1		6010B	Total/NA
Copper	9.05		1.01	0.510	mg/Kg	1		6010B	Total/NA
Lead	13.6		5.03	0.972	mg/Kg	1		6010B	Total/NA
Nickel	5.70		0.503	0.432	mg/Kg	1		6010B	Total/NA
Silver	0.345	J	1.01	0.226	mg/Kg	1		6010B	Total/NA
Vanadium	13.2		1.01	0.173	mg/Kg	1		6010B	Total/NA
Zinc	29.0		10.1	5.14	mg/Kg	1		6010B	Total/NA
Mercury	0.105		0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B19-0.5

Lab Sample ID: 570-65062-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlordane	6.7	J	25	2.3	ug/Kg	1		8081A	Total/NA
Arsenic	2.98		2.44	2.21	mg/Kg	1		6010B	Total/NA
Barium	70.6		0.488	0.216	mg/Kg	1		6010B	Total/NA
Cadmium	0.602		0.488	0.197	mg/Kg	1		6010B	Total/NA
Chromium	11.6		0.976	0.171	mg/Kg	1		6010B	Total/NA
Cobalt	5.60		0.976	0.222	mg/Kg	1		6010B	Total/NA
Copper	12.1		0.976	0.495	mg/Kg	1		6010B	Total/NA
Lead	14.5		4.88	0.943	mg/Kg	1		6010B	Total/NA
Nickel	8.36		0.488	0.419	mg/Kg	1		6010B	Total/NA
Silver	0.545	J	0.976	0.220	mg/Kg	1		6010B	Total/NA
Vanadium	19.0		0.976	0.167	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B19-0.5 (Continued)

Lab Sample ID: 570-65062-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	38.2		9.76	4.99	mg/Kg	1		6010B	Total/NA
Mercury	0.0854	J	0.0862	0.0140	mg/Kg	1		7471A	Total/NA

Client Sample ID: B19-5

Lab Sample ID: 570-65062-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C21-C22	4.0	J	5.2	4.0	mg/Kg	1		8015B	Total/NA
C25-C28	4.8	J	5.2	4.0	mg/Kg	1		8015B	Total/NA
C6-C44	21		5.2	4.0	mg/Kg	1		8015B	Total/NA
Arsenic	2.55		2.39	2.17	mg/Kg	1		6010B	Total/NA
Barium	57.8		0.478	0.212	mg/Kg	1		6010B	Total/NA
Cadmium	0.546		0.478	0.193	mg/Kg	1		6010B	Total/NA
Chromium	10.4		0.957	0.168	mg/Kg	1		6010B	Total/NA
Cobalt	5.14		0.957	0.218	mg/Kg	1		6010B	Total/NA
Copper	11.1		0.957	0.485	mg/Kg	1		6010B	Total/NA
Lead	16.6		4.78	0.925	mg/Kg	1		6010B	Total/NA
Nickel	7.30		0.478	0.411	mg/Kg	1		6010B	Total/NA
Silver	0.471	J	0.957	0.216	mg/Kg	1		6010B	Total/NA
Vanadium	16.8		0.957	0.164	mg/Kg	1		6010B	Total/NA
Zinc	36.7		9.57	4.89	mg/Kg	1		6010B	Total/NA
Mercury	0.107		0.0877	0.0142	mg/Kg	1		7471A	Total/NA

Client Sample ID: B21-0.5

Lab Sample ID: 570-65062-49

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1260	35	J	50	25	ug/Kg	1		8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B12-5
Date Collected: 07/21/21 09:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Benzene	ND		1.0	0.27	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Bromobenzene	ND		1.0	0.22	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Bromodichloromethane	ND		1.0	0.17	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Bromoform	ND		5.2	1.4	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
2-Butanone	ND		21	4.7	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Chloroethane	ND		2.1	1.6	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Dibromomethane	ND		1.0	0.32	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1-Dichloroethene	ND		1.0	0.28	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2-Dichloropropane	ND		1.0	0.29	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,3-Dichloropropane	ND		1.0	0.31	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
2,2-Dichloropropane	ND		5.2	0.28	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Di-isopropyl ether (DIPE)	ND		1.0	0.52	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Ethanol	ND		260	68	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
p-Isopropyltoluene	ND		1.0	0.73	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B12-5
Date Collected: 07/21/21 09:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.73	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2,4-Trichlorobenzene	ND		2.1	0.43	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Vinyl acetate	ND	F1	10	4.1	ug/Kg		07/23/21 11:17	07/23/21 12:24	1
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 11:17	07/23/21 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/23/21 11:17*	*07/23/21 12:24*	*1*
Dibromofluoromethane (Surr)	*101*		*47 - 142*	*07/23/21 11:17*	*07/23/21 12:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/23/21 11:17*	*07/23/21 12:24*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*07/23/21 11:17*	*07/23/21 12:24*	*1*

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.9	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Bromoform	ND		5.1	1.3	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
2-Butanone	ND		20	4.6	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Chloroform	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Chloromethane	ND		20	1.6	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 12:34	07/23/21 14:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Dibromochloromethane	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Dichlorodifluoromethane	ND		2.0	0.46	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
2,2-Dichloropropane	ND		5.1	0.27	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Ethanol	ND		250	67	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Isopropylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
m,p-Xylene	ND		2.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Naphthalene	ND		10	5.3	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
N-Propylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
o-Xylene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
p-Isopropyltoluene	ND		1.0	0.71	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
sec-Butylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Styrene	ND		1.0	0.71	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
tert-Butyl alcohol (TBA)	ND		20	7.1	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Toluene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 14:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.47	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
1,3,5-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Vinyl acetate	ND		10	4.0	ug/Kg		07/23/21 12:34	07/23/21 14:46	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*76 - 120*	*07/23/21 12:34*	*07/23/21 14:46*	*1*
Dibromofluoromethane (Surr)	*104*		*47 - 142*	*07/23/21 12:34*	*07/23/21 14:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/23/21 12:34*	*07/23/21 14:46*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*07/23/21 12:34*	*07/23/21 14:46*	*1*

Client Sample ID: B14-5
Date Collected: 07/21/21 10:41
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.9	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Dichlorodifluoromethane	ND		2.0	0.46	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 12:34	07/23/21 15:14	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B14-5
Date Collected: 07/21/21 10:41
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		250	66	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
m,p-Xylene	ND		2.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Vinyl acetate	ND		10	3.9	ug/Kg		07/23/21 12:34	07/23/21 15:14	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*	*07/23/21 12:34*	*07/23/21 15:14*	*1*
Dibromofluoromethane (Surr)	*103*		*47 - 142*	*07/23/21 12:34*	*07/23/21 15:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 141*	*07/23/21 12:34*	*07/23/21 15:14*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 15:14*	*1*

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Bromoform	ND		5.1	1.4	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
2-Butanone	ND		21	4.6	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Chloroethane	ND		2.1	1.5	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
2,2-Dichloropropane	ND		5.1	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Ethanol	ND		260	68	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
p-Isopropyltoluene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Styrene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 12:34	07/23/21 15:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2,4-Trichlorobenzene	ND		2.1	0.42	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Vinyl acetate	ND		10	4.0	ug/Kg		07/23/21 12:34	07/23/21 15:42	1
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*	*07/23/21 12:34*	*07/23/21 15:42*	*1*
Dibromofluoromethane (Surr)	*99*		*47 - 142*	*07/23/21 12:34*	*07/23/21 15:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 141*	*07/23/21 12:34*	*07/23/21 15:42*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 15:42*	*1*

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Benzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Bromobenzene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Bromoform	ND		5.2	1.4	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
2-Butanone	ND		21	4.7	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Chloroethane	ND		2.1	1.5	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Dibromomethane	ND		1.0	0.32	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
2,2-Dichloropropane	ND		5.2	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Di-isopropyl ether (DIPE)	ND		1.0	0.52	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Ethanol	ND		260	68	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
p-Isopropyltoluene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Styrene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2,4-Trichlorobenzene	ND		2.1	0.42	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Vinyl acetate	ND		10	4.0	ug/Kg		07/23/21 12:34	07/23/21 16:11	1
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*	*07/23/21 12:34*	*07/23/21 16:11*	*1*
Dibromofluoromethane (Surr)	*102*		*47 - 142*	*07/23/21 12:34*	*07/23/21 16:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 141*	*07/23/21 12:34*	*07/23/21 16:11*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 16:11*	*1*

Client Sample ID: B18-5
Date Collected: 07/21/21 12:25
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	9.6	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Benzene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Bromobenzene	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Bromochloromethane	ND		1.9	0.43	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Bromodichloromethane	ND		0.97	0.16	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Bromoform	ND		4.9	1.3	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Bromomethane	ND		19	6.4	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
2-Butanone	ND		19	4.4	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Carbon disulfide	ND		9.7	0.39	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Carbon tetrachloride	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Chlorobenzene	ND		0.97	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Chloroethane	ND		1.9	1.5	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Chloroform	ND		0.97	0.57	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Chloromethane	ND		19	1.5	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
2-Chlorotoluene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
4-Chlorotoluene	ND		0.97	0.24	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
cis-1,2-Dichloroethene	ND		0.97	0.33	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
cis-1,3-Dichloropropene	ND		0.97	0.34	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Dibromochloromethane	ND		1.9	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2-Dibromo-3-Chloropropane	ND		9.7	6.6	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2-Dibromoethane	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Dibromomethane	ND		0.97	0.30	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2-Dichlorobenzene	ND		0.97	0.24	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,3-Dichlorobenzene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,4-Dichlorobenzene	ND		0.97	0.30	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Dichlorodifluoromethane	ND		1.9	0.44	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1-Dichloroethene	ND		0.97	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2-Dichloropropane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,3-Dichloropropane	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
2,2-Dichloropropane	ND		4.9	0.26	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1-Dichloropropene	ND		1.9	0.38	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Di-isopropyl ether (DIPE)	ND		0.97	0.49	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Ethanol	ND		240	64	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Ethylbenzene	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 16:39	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B18-5
Date Collected: 07/21/21 12:25
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		0.97	0.23	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
2-Hexanone	ND		19	3.0	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Isopropylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Methylene Chloride	ND		9.7	3.0	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
4-Methyl-2-pentanone	ND		19	2.8	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Methyl-t-Butyl Ether (MTBE)	ND		1.9	0.18	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
m,p-Xylene	ND		1.9	0.46	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Naphthalene	ND		9.7	5.1	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
n-Butylbenzene	ND		0.97	0.21	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
N-Propylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
o-Xylene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
p-Isopropyltoluene	ND		0.97	0.68	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
sec-Butylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Styrene	ND		0.97	0.68	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Tert-amyl-methyl ether (TAME)	ND		0.97	0.19	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
tert-Butyl alcohol (TBA)	ND		19	6.8	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
tert-Butylbenzene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1,1,2-Tetrachloroethane	ND		0.97	0.28	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.53	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Tetrachloroethene	ND		0.97	0.22	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Toluene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
trans-1,2-Dichloroethene	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
trans-1,3-Dichloropropene	ND		1.9	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2,3-Trichlorobenzene	ND		1.9	0.97	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2,4-Trichlorobenzene	ND		1.9	0.40	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1,1-Trichloroethane	ND		0.97	0.23	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1,2-Trichloroethane	ND		0.97	0.45	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Trichloroethene	ND		1.9	0.38	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Trichlorofluoromethane	ND		9.7	0.27	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2,3-Trichloropropane	ND		1.9	0.41	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.7	0.45	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,2,4-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
1,3,5-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Vinyl acetate	ND		9.7	3.8	ug/Kg		07/23/21 12:34	07/23/21 16:39	1
Vinyl chloride	ND		0.97	0.37	ug/Kg		07/23/21 12:34	07/23/21 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/23/21 12:34*	*07/23/21 16:39*	*1*
Dibromofluoromethane (Surr)	*100*		*47 - 142*	*07/23/21 12:34*	*07/23/21 16:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 141*	*07/23/21 12:34*	*07/23/21 16:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*07/23/21 12:34*	*07/23/21 16:39*	*1*

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 12:34	07/23/21 17:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Ethanol	ND		250	66	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 17:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Vinyl acetate	ND		10	3.9	ug/Kg		07/23/21 12:34	07/23/21 17:08	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*76 - 120*	*07/23/21 12:34*	*07/23/21 17:08*	*1*
Dibromofluoromethane (Surr)	*103*		*47 - 142*	*07/23/21 12:34*	*07/23/21 17:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 141*	*07/23/21 12:34*	*07/23/21 17:08*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*07/23/21 12:34*	*07/23/21 17:08*	*1*

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Benzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Bromobenzene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Bromoform	ND		5.2	1.4	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
2-Butanone	ND		21	4.7	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Chloroethane	ND		2.1	1.5	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0	0.32	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
2,2-Dichloropropane	ND		5.2	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Di-isopropyl ether (DIPE)	ND		1.0	0.52	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Ethanol	ND		260	68	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
p-Isopropyltoluene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Styrene	ND		1.0	0.72	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2,4-Trichlorobenzene	ND		2.1	0.42	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 12:34	07/23/21 17:37	1
Vinyl acetate	ND		10	4.0	ug/Kg		07/23/21 12:34	07/23/21 17:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*	*07/23/21 12:34*	*07/23/21 17:37*	*1*
Dibromofluoromethane (Surr)	*102*		*47 - 142*	*07/23/21 12:34*	*07/23/21 17:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 141*	*07/23/21 12:34*	*07/23/21 17:37*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*07/23/21 12:34*	*07/23/21 17:37*	*1*

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	10	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Bromoform	ND		5.1	1.3	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Bromomethane	ND		20	6.7	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
2-Butanone	ND		20	4.6	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Chloroform	ND		1.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Chloromethane	ND		20	1.6	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Dibromochloromethane	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Dichlorodifluoromethane	ND		2.0	0.46	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
2,2-Dichloropropane	ND		5.1	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Ethanol	ND		250	67	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 12:34	07/23/21 18:05	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
m,p-Xylene	ND		2.0	0.48	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Naphthalene	ND		10	5.3	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
N-Propylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
o-Xylene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
sec-Butylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Styrene	ND		1.0	0.71	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
tert-Butyl alcohol (TBA)	ND		20	7.1	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Toluene	ND		1.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2,4-Trichlorobenzene	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.47	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
1,3,5-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Vinyl acetate	ND		10	4.0	ug/Kg		07/23/21 12:34	07/23/21 18:05	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*	*07/23/21 12:34*	*07/23/21 18:05*	*1*
Dibromofluoromethane (Surr)	*103*		*47 - 142*	*07/23/21 12:34*	*07/23/21 18:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 141*	*07/23/21 12:34*	*07/23/21 18:05*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 18:05*	*1*

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	9.5	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Benzene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Bromobenzene	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Bromochloromethane	ND		1.9	0.43	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Bromodichloromethane	ND		0.97	0.15	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Bromoform	ND		4.8	1.3	ug/Kg		07/23/21 12:34	07/23/21 18:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		19	6.4	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
2-Butanone	ND		19	4.4	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Carbon disulfide	ND		9.7	0.39	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Carbon tetrachloride	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Chlorobenzene	ND		0.97	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Chloroethane	ND		1.9	1.5	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Chloroform	ND		0.97	0.57	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Chloromethane	ND		19	1.5	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
2-Chlorotoluene	ND		0.97	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
4-Chlorotoluene	ND		0.97	0.23	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
cis-1,2-Dichloroethene	ND		0.97	0.33	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
cis-1,3-Dichloropropene	ND		0.97	0.34	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Dibromochloromethane	ND		1.9	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2-Dibromo-3-Chloropropane	ND		9.7	6.5	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2-Dibromoethane	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Dibromomethane	ND		0.97	0.30	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2-Dichlorobenzene	ND		0.97	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,3-Dichlorobenzene	ND		0.97	0.24	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,4-Dichlorobenzene	ND		0.97	0.30	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Dichlorodifluoromethane	ND		1.9	0.44	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1-Dichloroethene	ND		0.97	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2-Dichloropropane	ND		0.97	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,3-Dichloropropane	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
2,2-Dichloropropane	ND		4.8	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1-Dichloropropene	ND		1.9	0.38	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Di-isopropyl ether (DIPE)	ND		0.97	0.48	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Ethanol	ND		240	64	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Ethylbenzene	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Ethyl-t-butyl ether (ETBE)	ND		0.97	0.23	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
2-Hexanone	ND		19	3.0	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Isopropylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Methylene Chloride	ND		9.7	3.0	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
4-Methyl-2-pentanone	ND		19	2.8	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.9	0.18	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
m,p-Xylene	ND		1.9	0.46	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Naphthalene	ND		9.7	5.0	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
n-Butylbenzene	ND		0.97	0.20	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
N-Propylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
o-Xylene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
p-Isopropyltoluene	ND		0.97	0.68	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
sec-Butylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Styrene	ND		0.97	0.68	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Tert-amyl-methyl ether (TAME)	ND		0.97	0.19	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
tert-Butyl alcohol (TBA)	ND		19	6.8	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
tert-Butylbenzene	ND		0.97	0.25	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1,1,2-Tetrachloroethane	ND		0.97	0.28	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.53	ug/Kg		07/23/21 12:34	07/23/21 18:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.97	0.22	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Toluene	ND		0.97	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
trans-1,2-Dichloroethene	ND		0.97	0.29	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
trans-1,3-Dichloropropene	ND		1.9	0.27	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2,3-Trichlorobenzene	ND		1.9	0.97	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2,4-Trichlorobenzene	ND		1.9	0.40	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1,1-Trichloroethane	ND		0.97	0.23	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1,2-Trichloroethane	ND		0.97	0.45	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Trichloroethene	ND		1.9	0.37	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Trichlorofluoromethane	ND		9.7	0.26	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2,3-Trichloropropane	ND		1.9	0.41	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.7	0.45	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,2,4-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
1,3,5-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Vinyl acetate	ND		9.7	3.8	ug/Kg		07/23/21 12:34	07/23/21 18:34	1
Vinyl chloride	ND		0.97	0.37	ug/Kg		07/23/21 12:34	07/23/21 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/23/21 12:34*	*07/23/21 18:34*	*1*
Dibromofluoromethane (Surr)	*102*		*47 - 142*	*07/23/21 12:34*	*07/23/21 18:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 141*	*07/23/21 12:34*	*07/23/21 18:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*07/23/21 12:34*	*07/23/21 18:34*	*1*

Client Sample ID: B16-5
Date Collected: 07/21/21 14:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.7	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Benzene	ND		0.98	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Bromobenzene	ND		0.98	0.20	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Bromodichloromethane	ND		0.98	0.16	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Bromoform	ND		4.9	1.3	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
2-Butanone	ND		20	4.4	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Carbon disulfide	ND		9.8	0.39	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Carbon tetrachloride	ND		0.98	0.29	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Chlorobenzene	ND		0.98	0.26	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Chloroform	ND		0.98	0.58	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
2-Chlorotoluene	ND		0.98	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
4-Chlorotoluene	ND		0.98	0.24	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
cis-1,2-Dichloroethene	ND		0.98	0.33	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
cis-1,3-Dichloropropene	ND		0.98	0.34	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2-Dibromo-3-Chloropropane	ND		9.8	6.6	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2-Dibromoethane	ND		0.98	0.20	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Dibromomethane	ND		0.98	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2-Dichlorobenzene	ND		0.98	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B16-5
Date Collected: 07/21/21 14:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.98	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,4-Dichlorobenzene	ND		0.98	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1-Dichloroethane	ND		0.98	0.28	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2-Dichloroethane	ND		0.98	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1-Dichloroethene	ND		0.98	0.26	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2-Dichloropropane	ND		0.98	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,3-Dichloropropane	ND		0.98	0.29	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
2,2-Dichloropropane	ND		4.9	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Di-isopropyl ether (DIPE)	ND		0.98	0.49	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Ethanol	ND		250	65	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Ethylbenzene	ND		0.98	0.20	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Ethyl-t-butyl ether (ETBE)	ND		0.98	0.23	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Isopropylbenzene	ND		0.98	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Methylene Chloride	ND		9.8	3.1	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.18	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Naphthalene	ND		9.8	5.1	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
n-Butylbenzene	ND		0.98	0.21	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
N-Propylbenzene	ND		2.0	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
o-Xylene	ND		0.98	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
p-Isopropyltoluene	ND		0.98	0.69	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
sec-Butylbenzene	ND		0.98	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Styrene	ND		0.98	0.69	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Tert-amyl-methyl ether (TAME)	ND		0.98	0.19	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
tert-Butylbenzene	ND		0.98	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1,1,2-Tetrachloroethane	ND		0.98	0.29	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.53	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Tetrachloroethene	ND		0.98	0.22	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Toluene	ND		0.98	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
trans-1,2-Dichloroethene	ND		0.98	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
trans-1,3-Dichloropropene	ND		2.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2,3-Trichlorobenzene	ND		2.0	0.98	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2,4-Trichlorobenzene	ND		2.0	0.40	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1,1-Trichloroethane	ND		0.98	0.23	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1,2-Trichloroethane	ND		0.98	0.46	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Trichlorofluoromethane	ND		9.8	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2,3-Trichloropropane	ND		2.0	0.41	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.8	0.45	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,2,4-Trimethylbenzene	ND		2.0	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
1,3,5-Trimethylbenzene	ND		2.0	0.59	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Vinyl acetate	ND		9.8	3.8	ug/Kg		07/23/21 12:34	07/23/21 19:02	1
Vinyl chloride	ND		0.98	0.37	ug/Kg		07/23/21 12:34	07/23/21 19:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*96*		*76 - 120*	*07/23/21 12:34*	*07/23/21 19:02*	*1*
Dibromofluoromethane (Surr)	*103*		*47 - 142*	*07/23/21 12:34*	*07/23/21 19:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/23/21 12:34*	*07/23/21 19:02*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 19:02*	*1*

Client Sample ID: B19-5
Date Collected: 07/21/21 14:34
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Chloroform	ND		0.99	0.58	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
cis-1,2-Dichloroethene	ND		0.99	0.33	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Ethanol	ND		250	65	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Ethylbenzene	ND		0.99	0.20	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 12:34	07/23/21 19:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B19-5
Date Collected: 07/21/21 14:34
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
p-Isopropyltoluene	ND		0.99	0.69	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Styrene	ND		0.99	0.69	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Vinyl acetate	ND		9.9	3.9	ug/Kg		07/23/21 12:34	07/23/21 19:30	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 12:34	07/23/21 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*76 - 120*	*07/23/21 12:34*	*07/23/21 19:30*	*1*
Dibromofluoromethane (Surr)	*101*		*47 - 142*	*07/23/21 12:34*	*07/23/21 19:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/23/21 12:34*	*07/23/21 19:30*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*07/23/21 12:34*	*07/23/21 19:30*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B12-5
Date Collected: 07/21/21 09:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C7 as C7	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C8 as C8	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C9-C10	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C11-C12	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C13-C14	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C15-C16	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C17-C18	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C19-C20	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C21-C22	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C23-C24	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C25-C28	**3.9**	**J**	5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C29-C32	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C33-C36	**4.9**	**J**	5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C37-C40	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C41-C44	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1
C6-C44	**20**		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*100*		*60 - 138*	*07/26/21 13:46*	*07/27/21 01:59*	*1*

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C7 as C7	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C8 as C8	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C9-C10	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C11-C12	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C13-C14	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C15-C16	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C17-C18	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C19-C20	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C21-C22	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C23-C24	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C25-C28	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C29-C32	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C33-C36	**4.4**	**J**	4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C37-C40	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C41-C44	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1
C6-C44	**18**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*85*		*60 - 138*	*07/26/21 13:46*	*07/27/21 02:21*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B14-5
Date Collected: 07/21/21 10:41
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C7 as C7	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C8 as C8	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C9-C10	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C11-C12	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C13-C14	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C15-C16	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C17-C18	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C19-C20	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C21-C22	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C23-C24	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C25-C28	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C29-C32	ND		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C33-C36	**25**		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C37-C40	**25**		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C41-C44	**8.8**	**J**	9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2
C6-C44	**86**		9.9	7.6	mg/Kg		07/26/21 13:46	07/27/21 02:42	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*84*		*60 - 138*	*07/26/21 13:46*	*07/27/21 02:42*	*2*

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C7 as C7	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C8 as C8	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C9-C10	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C11-C12	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C13-C14	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C15-C16	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C17-C18	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C19-C20	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C21-C22	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C23-C24	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C25-C28	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C29-C32	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C33-C36	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C37-C40	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C41-C44	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1
C6-C44	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*111*		*60 - 138*	*07/26/21 13:46*	*07/27/21 03:05*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C7 as C7	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C8 as C8	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C9-C10	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C11-C12	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C13-C14	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C15-C16	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C17-C18	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C19-C20	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C21-C22	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C23-C24	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C25-C28	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C29-C32	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C33-C36	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C37-C40	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C41-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1
C6-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*115*		*60 - 138*	*07/26/21 13:46*	*07/27/21 03:27*	*1*

Client Sample ID: B18-5
Date Collected: 07/21/21 12:25
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C7 as C7	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C8 as C8	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C9-C10	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C11-C12	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C13-C14	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C15-C16	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C17-C18	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C19-C20	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C21-C22	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C23-C24	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C25-C28	**5.6**		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C29-C32	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C33-C36	**4.5**	**J**	5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C37-C40	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C41-C44	ND		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1
C6-C44	**27**		5.0	3.9	mg/Kg		07/26/21 13:46	07/27/21 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*108*		*60 - 138*	*07/26/21 13:46*	*07/27/21 03:49*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C7 as C7	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C8 as C8	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C9-C10	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C11-C12	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C13-C14	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C15-C16	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C17-C18	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C19-C20	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C21-C22	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C23-C24	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C25-C28	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C29-C32	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C33-C36	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C37-C40	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C41-C44	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1
C6-C44	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*111*		*60 - 138*	*07/26/21 13:46*	*07/27/21 04:11*	*1*

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C7 as C7	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C8 as C8	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C9-C10	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C11-C12	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C13-C14	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C15-C16	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C17-C18	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C19-C20	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C21-C22	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C23-C24	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C25-C28	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C29-C32	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C33-C36	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C37-C40	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C41-C44	ND		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1
C6-C44	**5.4**		4.9	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*109*		*60 - 138*	*07/26/21 13:46*	*07/27/21 04:33*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C7 as C7	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C8 as C8	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C9-C10	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C11-C12	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C13-C14	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C15-C16	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C17-C18	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C19-C20	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C21-C22	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C23-C24	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C25-C28	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C29-C32	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C33-C36	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C37-C40	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C41-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1
C6-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/27/21 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*107*		*60 - 138*	*07/26/21 13:46*	*07/27/21 04:56*	*1*

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C7 as C7	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C8 as C8	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C9-C10	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C11-C12	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C13-C14	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C15-C16	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C17-C18	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C19-C20	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C21-C22	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C23-C24	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C25-C28	**10**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C29-C32	**18**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C33-C36	**17**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C37-C40	**12**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C41-C44	ND		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1
C6-C44	**63**		4.7	3.6	mg/Kg		07/26/21 13:46	07/27/21 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*98*		*60 - 138*	*07/26/21 13:46*	*07/27/21 05:19*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B16-5
Date Collected: 07/21/21 14:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C7 as C7	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C8 as C8	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C9-C10	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C11-C12	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C13-C14	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C15-C16	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C17-C18	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C19-C20	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C21-C22	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C23-C24	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C25-C28	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C29-C32	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C33-C36	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C37-C40	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C41-C44	ND		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1
C6-C44	**5.8**		4.8	3.7	mg/Kg		07/26/21 13:46	07/27/21 06:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*118*		*60 - 138*	*07/26/21 13:46*	*07/27/21 06:25*	*1*

Client Sample ID: B19-5
Date Collected: 07/21/21 14:34
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C7 as C7	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C8 as C8	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C9-C10	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C11-C12	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C13-C14	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C15-C16	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C17-C18	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C19-C20	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C21-C22	**4.0**	**J**	5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C23-C24	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C25-C28	**4.8**	**J**	5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C29-C32	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C33-C36	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C37-C40	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C41-C44	ND		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1
C6-C44	**21**		5.2	4.0	mg/Kg		07/26/21 13:46	07/27/21 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*103*		*60 - 138*	*07/26/21 13:46*	*07/27/21 06:48*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B12-0.5
Date Collected: 07/21/21 08:45
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
4,4'-DDE	ND		5.0	0.53	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
4,4'-DDT	ND	F2	5.0	0.94	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Chlordane	ND		25	2.4	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Methoxychlor	ND	F2	5.0	0.81	ug/Kg		07/22/21 15:23	07/23/21 13:50	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*38 - 148*	*07/22/21 15:23*	*07/23/21 13:50*	*1*
DCB Decachlorobiphenyl (Surr)	*74*		*37 - 151*	*07/22/21 15:23*	*07/23/21 13:50*	*1*

Client Sample ID: B13-0.5
Date Collected: 07/21/21 08:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Aldrin	ND		4.9	0.71	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
gamma-BHC	ND		4.9	0.61	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/22/21 15:23	07/23/21 15:24	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B13-0.5
Date Collected: 07/21/21 08:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 15:24	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*38 - 148*	*07/22/21 15:23*	*07/23/21 15:24*	*1*
DCB Decachlorobiphenyl (Surr)	*79*		*37 - 151*	*07/22/21 15:23*	*07/23/21 15:24*	*1*

Client Sample ID: B14-0.5
Date Collected: 07/21/21 08:54
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
4,4'-DDE	**1.2**	**J p**	5.0	0.53	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
4,4'-DDT	**1.2**	**J p**	5.0	0.94	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Chlordane	**8.4**	**J**	25	2.4	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
gamma-Chlordane	**1.9**	**J p**	5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/22/21 15:23	07/23/21 15:38	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*38 - 148*	*07/22/21 15:23*	*07/23/21 15:38*	*1*
DCB Decachlorobiphenyl (Surr)	*127*		*37 - 151*	*07/22/21 15:23*	*07/23/21 15:38*	*1*

Client Sample ID: B15-0.5
Date Collected: 07/21/21 09:00
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-13
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Aldrin	ND		4.9	0.71	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 19:55	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B15-0.5
Date Collected: 07/21/21 09:00
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-13
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 19:55	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*38 - 148*	*07/22/21 15:23*	*07/23/21 19:55*	*1*
DCB Decachlorobiphenyl (Surr)	*72*		*37 - 151*	*07/22/21 15:23*	*07/23/21 19:55*	*1*

Client Sample ID: B20-0.5
Date Collected: 07/21/21 11:40
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-17
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.98	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Aldrin	ND		4.9	0.72	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endrin aldehyde	ND		4.9	1.8	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Heptachlor	ND		4.9	0.88	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 16:07	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*38 - 148*	*07/22/21 15:23*	*07/23/21 16:07*	*1*
DCB Decachlorobiphenyl (Surr)	*114*		*37 - 151*	*07/22/21 15:23*	*07/23/21 16:07*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B18-0.5
Date Collected: 07/21/21 12:23
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-21
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
4,4'-DDE	**2.3**	**J**	4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Aldrin	ND		4.9	0.71	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
gamma-BHC	ND		4.9	0.61	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 16:21	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*38 - 148*	*07/22/21 15:23*	*07/23/21 16:21*	*1*
DCB Decachlorobiphenyl (Surr)	*65*		*37 - 151*	*07/22/21 15:23*	*07/23/21 16:21*	*1*

Client Sample ID: B23-0.5
Date Collected: 07/21/21 09:15
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-25
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
4,4'-DDE	ND		5.0	0.53	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
beta-BHC	ND		5.0	3.6	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Chlordane	ND		25	2.4	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endosulfan II	ND		5.0	0.30	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/22/21 15:23	07/23/21 16:35	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B23-0.5
Date Collected: 07/21/21 09:15
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-25
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Methoxychlor	ND		5.0	0.80	ug/Kg		07/22/21 15:23	07/23/21 16:35	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*38 - 148*	*07/22/21 15:23*	*07/23/21 16:35*	*1*
DCB Decachlorobiphenyl (Surr)	*68*		*37 - 151*	*07/22/21 15:23*	*07/23/21 16:35*	*1*

Client Sample ID: B22-0.5
Date Collected: 07/21/21 13:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-29
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Aldrin	ND		4.9	0.71	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Chlordane	**5.5**	**J**	25	2.3	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
gamma-BHC	ND		4.9	0.61	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 16:50	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*38 - 148*	*07/22/21 15:23*	*07/23/21 16:50*	*1*
DCB Decachlorobiphenyl (Surr)	*79*		*37 - 151*	*07/22/21 15:23*	*07/23/21 16:50*	*1*

Client Sample ID: B24-0.5
Date Collected: 07/21/21 09:18
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-33
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.98	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Aldrin	ND		4.9	0.72	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 18:01	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B24-0.5
Date Collected: 07/21/21 09:18
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-33
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Heptachlor	ND		4.9	0.88	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 18:01	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*38 - 148*	*07/22/21 15:23*	*07/23/21 18:01*	*1*
DCB Decachlorobiphenyl (Surr)	*68*		*37 - 151*	*07/22/21 15:23*	*07/23/21 18:01*	*1*

Client Sample ID: B17-0.5
Date Collected: 07/21/21 13:47
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-37
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
4,4'-DDE	ND		5.0	0.53	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Chlordane	ND		25	2.4	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/22/21 15:23	07/23/21 18:15	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*38 - 148*	*07/22/21 15:23*	*07/23/21 18:15*	*1*
DCB Decachlorobiphenyl (Surr)	*70*		*37 - 151*	*07/22/21 15:23*	*07/23/21 18:15*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B16-0.5
Date Collected: 07/21/21 14:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-41
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Aldrin	ND		4.9	0.71	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Chlordane	ND		25	2.3	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endrin	ND		4.9	0.33	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/22/21 15:23	07/23/21 18:29	1
Toxaphene	ND		25	19	ug/Kg		07/22/21 15:23	07/23/21 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*38 - 148*	*07/22/21 15:23*	*07/23/21 18:29*	*1*
DCB Decachlorobiphenyl (Surr)	*58*		*37 - 151*	*07/22/21 15:23*	*07/23/21 18:29*	*1*

Client Sample ID: B19-0.5
Date Collected: 07/21/21 09:05
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-45
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
4,4'-DDE	ND		5.0	0.53	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
4,4'-DDT	ND		5.0	0.93	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
beta-BHC	ND		5.0	3.6	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Chlordane	**6.7**	**J**	25	2.3	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endosulfan II	ND		5.0	0.30	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/22/21 15:23	07/23/21 18:43	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B19-0.5
Date Collected: 07/21/21 09:05
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-45
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Methoxychlor	ND		5.0	0.80	ug/Kg		07/22/21 15:23	07/23/21 18:43	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*38 - 148*	*07/22/21 15:23*	*07/23/21 18:43*	*1*
DCB Decachlorobiphenyl (Surr)	*82*		*37 - 151*	*07/22/21 15:23*	*07/23/21 18:43*	*1*

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: B21-0.5
Date Collected: 07/21/21 09:08
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-49
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		50	39	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1221	ND		50	39	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1232	ND		50	39	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1242	ND		50	39	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1248	ND		50	39	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1254	ND		50	25	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1260	**35**	**J**	50	25	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1262	ND		50	25	ug/Kg		07/23/21 07:53	07/26/21 15:41	1
Aroclor-1268	ND		50	25	ug/Kg		07/23/21 07:53	07/26/21 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*77*		*25 - 126*	*07/23/21 07:53*	*07/26/21 15:41*	*1*
DCB Decachlorobiphenyl (Surr)	*91*		*20 - 155*	*07/23/21 07:53*	*07/26/21 15:41*	*1*

Method: 6010B - Metals (ICP)

Client Sample ID: B12-0.5
Date Collected: 07/21/21 08:45
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Arsenic	ND		2.58	2.33	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Barium	**13.2**		0.515	0.229	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Beryllium	ND		0.258	0.176	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Cadmium	**0.273**	**J**	0.515	0.208	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Chromium	**3.77**		1.03	0.181	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Cobalt	**1.12**		1.03	0.234	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Copper	**3.41**		1.03	0.523	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Lead	**11.3**		5.15	0.997	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Nickel	**2.27**		0.515	0.443	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Selenium	ND		5.15	1.91	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Silver	ND		1.03	0.232	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Thallium	ND		5.15	1.53	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Vanadium	**4.33**		1.03	0.177	mg/Kg		07/23/21 13:47	07/26/21 17:47	1
Zinc	**24.8**		10.3	5.27	mg/Kg		07/23/21 13:47	07/26/21 17:47	1

Client Sample ID: B12-5
Date Collected: 07/21/21 09:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.02	1.36	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Arsenic	ND		2.51	2.28	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Barium	**18.2**		0.503	0.223	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Beryllium	ND		0.251	0.172	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Cadmium	**0.407**	**J**	0.503	0.203	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Chromium	**5.99**		1.01	0.177	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Cobalt	**1.60**		1.01	0.228	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Copper	**4.87**		1.01	0.510	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Lead	**15.3**		5.03	0.972	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Molybdenum	ND		0.503	0.453	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Nickel	**3.55**		0.503	0.432	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Selenium	ND		5.03	1.86	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Silver	ND		1.01	0.226	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Thallium	ND		5.03	1.49	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Vanadium	**6.19**		1.01	0.173	mg/Kg		07/23/21 13:47	07/26/21 18:02	1
Zinc	**35.0**		10.1	5.14	mg/Kg		07/23/21 13:47	07/26/21 18:02	1

Client Sample ID: B13-0.5
Date Collected: 07/21/21 08:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.13	1.41	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Arsenic	ND		2.60	2.36	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Barium	**22.8**		0.521	0.231	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Beryllium	ND		0.260	0.178	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Cadmium	**0.524**		0.521	0.210	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Chromium	**6.56**		1.04	0.183	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Cobalt	**1.81**		1.04	0.237	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Copper	**5.93**		1.04	0.528	mg/Kg		07/23/21 13:47	07/26/21 18:04	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B13-0.5
Date Collected: 07/21/21 08:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**20.5**		5.21	1.01	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Molybdenum	ND		0.521	0.469	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Nickel	**3.81**		0.521	0.447	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Selenium	ND		5.21	1.93	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Silver	ND		1.04	0.235	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Thallium	ND		5.21	1.54	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Vanadium	**7.05**		1.04	0.179	mg/Kg		07/23/21 13:47	07/26/21 18:04	1
Zinc	**43.4**		10.4	5.33	mg/Kg		07/23/21 13:47	07/26/21 18:04	1

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.16	1.43	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Arsenic	ND		2.63	2.38	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Barium	**47.4**		0.526	0.233	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Beryllium	**0.297**		0.263	0.180	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Cadmium	**1.21**		0.526	0.212	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Chromium	**13.0**		1.05	0.185	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Cobalt	**3.93**		1.05	0.239	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Copper	**13.7**		1.05	0.534	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Lead	**39.5**		5.26	1.02	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Molybdenum	ND		0.526	0.474	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Nickel	**7.92**		0.526	0.452	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Selenium	ND		5.26	1.95	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Silver	ND		1.05	0.237	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Thallium	ND		5.26	1.56	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Vanadium	**15.0**		1.05	0.181	mg/Kg		07/23/21 13:47	07/26/21 18:06	1
Zinc	**89.7**		10.5	5.38	mg/Kg		07/23/21 13:47	07/26/21 18:06	1

Client Sample ID: B14-0.5
Date Collected: 07/21/21 08:54
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.02	1.36	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Arsenic	ND		2.51	2.28	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Barium	**52.9**		0.503	0.223	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Beryllium	**0.350**		0.251	0.172	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Cadmium	**1.38**		0.503	0.203	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Chromium	**15.2**		1.01	0.177	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Cobalt	**4.25**		1.01	0.228	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Copper	**14.9**		1.01	0.510	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Lead	**69.3**		5.03	0.972	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Molybdenum	ND		0.503	0.453	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Nickel	**9.18**		0.503	0.432	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Selenium	ND		5.03	1.86	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Silver	ND		1.01	0.226	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Thallium	ND		5.03	1.49	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Vanadium	**16.8**		1.01	0.173	mg/Kg		07/23/21 13:47	07/26/21 18:09	1
Zinc	**108**		10.1	5.14	mg/Kg		07/23/21 13:47	07/26/21 18:09	1

Method: 6010B - Metals (ICP)

Client Sample ID: B14-5
Date Collected: 07/21/21 10:41
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	3.13	1.41	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Arsenic	**2.86**		2.60	2.36	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Barium	**57.4**		0.521	0.231	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Beryllium	ND		0.260	0.178	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Cadmium	**0.618**		0.521	0.210	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Chromium	**14.3**	**F1**	1.04	0.183	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Cobalt	**5.14**		1.04	0.237	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Copper	**12.8**		1.04	0.528	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Lead	**39.7**	**F1**	5.21	1.01	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Molybdenum	ND		0.521	0.469	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Nickel	**7.81**		0.521	0.447	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Selenium	ND	F1	5.21	1.93	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Silver	**0.358**	**J**	1.04	0.235	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Thallium	ND		5.21	1.54	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Vanadium	**17.1**		1.04	0.179	mg/Kg		07/23/21 13:55	07/26/21 17:15	1
Zinc	**46.8**	**F1**	10.4	5.33	mg/Kg		07/23/21 13:55	07/26/21 17:15	1

Client Sample ID: B15-0.5
Date Collected: 07/21/21 09:00
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-13
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.97	1.34	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Arsenic	ND		2.48	2.24	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Barium	**38.0**		0.495	0.219	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Beryllium	ND		0.248	0.169	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Cadmium	**0.463**	**J**	0.495	0.200	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Chromium	**7.58**		0.990	0.174	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Cobalt	**3.81**		0.990	0.225	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Copper	**8.40**		0.990	0.502	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Lead	**11.5**		4.95	0.957	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Molybdenum	ND		0.495	0.446	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Nickel	**5.28**		0.495	0.425	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Selenium	ND		4.95	1.83	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Silver	**0.598**	**J**	0.990	0.223	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Thallium	ND		4.95	1.47	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Vanadium	**12.5**		0.990	0.170	mg/Kg		07/23/21 13:55	07/26/21 17:29	1
Zinc	**27.6**		9.90	5.06	mg/Kg		07/23/21 13:55	07/26/21 17:29	1

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.86	1.29	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Arsenic	**2.68**		2.38	2.16	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Barium	**47.7**		0.476	0.211	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Beryllium	ND		0.238	0.163	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Cadmium	**0.522**		0.476	0.192	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Chromium	**9.39**		0.952	0.167	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Cobalt	**4.43**		0.952	0.216	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Copper	**9.78**		0.952	0.483	mg/Kg		07/23/21 13:55	07/26/21 17:38	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**13.7**		4.76	0.921	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Molybdenum	ND		0.476	0.429	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Nickel	**6.37**		0.476	0.409	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Selenium	ND		4.76	1.76	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Silver	**0.469**	**J**	0.952	0.214	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Thallium	ND		4.76	1.41	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Vanadium	**15.8**		0.952	0.163	mg/Kg		07/23/21 13:55	07/26/21 17:38	1
Zinc	**33.6**		9.52	4.87	mg/Kg		07/23/21 13:55	07/26/21 17:38	1

Client Sample ID: B20-0.5
Date Collected: 07/21/21 11:40
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-17
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.88	1.30	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Arsenic	ND		2.40	2.18	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Barium	**57.0**		0.481	0.213	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Beryllium	ND		0.240	0.164	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Cadmium	**0.445**	**J**	0.481	0.194	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Chromium	**8.12**		0.962	0.169	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Cobalt	**4.07**		0.962	0.219	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Copper	**8.86**		0.962	0.488	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Lead	**11.6**		4.81	0.930	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Molybdenum	ND		0.481	0.433	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Nickel	**5.66**		0.481	0.413	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Selenium	ND		4.81	1.78	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Silver	**0.312**	**J**	0.962	0.217	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Thallium	ND		4.81	1.43	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Vanadium	**13.2**		0.962	0.165	mg/Kg		07/23/21 13:55	07/26/21 17:40	1
Zinc	**28.6**		9.62	4.92	mg/Kg		07/23/21 13:55	07/26/21 17:40	1

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.96	1.34	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Arsenic	ND		2.46	2.23	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Barium	**34.0**		0.493	0.218	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Beryllium	ND		0.246	0.168	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Cadmium	**0.362**	**J**	0.493	0.199	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Chromium	**6.51**		0.985	0.173	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Cobalt	**3.27**		0.985	0.224	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Copper	**7.58**		0.985	0.500	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Lead	**10.6**		4.93	0.953	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Molybdenum	ND		0.493	0.444	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Nickel	**4.65**		0.493	0.423	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Selenium	ND		4.93	1.82	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Silver	**0.360**	**J**	0.985	0.222	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Thallium	ND		4.93	1.46	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Vanadium	**10.9**		0.985	0.169	mg/Kg		07/23/21 13:55	07/26/21 17:43	1
Zinc	**23.9**		9.85	5.04	mg/Kg		07/23/21 13:55	07/26/21 17:43	1

Method: 6010B - Metals (ICP)

Client Sample ID: B18-0.5
Date Collected: 07/21/21 12:23
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-21
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.94	1.33	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Arsenic	ND		2.45	2.22	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Barium	**40.0**		0.490	0.217	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Beryllium	ND		0.245	0.168	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Cadmium	**0.443**	**J**	0.490	0.198	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Chromium	**8.03**		0.980	0.172	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Cobalt	**3.96**		0.980	0.223	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Copper	**9.11**		0.980	0.497	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Lead	**15.8**		4.90	0.948	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Molybdenum	ND		0.490	0.442	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Nickel	**5.76**		0.490	0.421	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Selenium	ND		4.90	1.81	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Silver	**0.358**	**J**	0.980	0.221	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Thallium	ND		4.90	1.45	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Vanadium	**12.8**		0.980	0.168	mg/Kg		07/23/21 13:55	07/26/21 17:45	1
Zinc	**30.0**		9.80	5.01	mg/Kg		07/23/21 13:55	07/26/21 17:45	1

Client Sample ID: B18-5
Date Collected: 07/21/21 12:25
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.90	1.31	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Arsenic	ND		2.42	2.19	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Barium	**31.7**		0.483	0.214	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Beryllium	ND		0.242	0.165	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Cadmium	**0.330**	**J**	0.483	0.195	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Chromium	**6.07**		0.966	0.170	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Cobalt	**3.04**		0.966	0.220	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Copper	**6.96**		0.966	0.490	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Lead	**11.0**		4.83	0.934	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Molybdenum	ND		0.483	0.435	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Nickel	**4.23**		0.483	0.415	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Selenium	ND		4.83	1.79	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Silver	**0.326**	**J**	0.966	0.218	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Thallium	ND		4.83	1.43	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Vanadium	**9.86**		0.966	0.166	mg/Kg		07/23/21 13:55	07/26/21 17:48	1
Zinc	**23.1**		9.66	4.94	mg/Kg		07/23/21 13:55	07/26/21 17:48	1

Client Sample ID: B23-0.5
Date Collected: 07/21/21 09:15
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-25
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.87	1.30	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Arsenic	ND		2.39	2.17	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Barium	**30.4**		0.478	0.212	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Beryllium	ND		0.239	0.164	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Cadmium	**0.331**	**J**	0.478	0.193	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Chromium	**5.92**		0.957	0.168	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Cobalt	**2.94**		0.957	0.218	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Copper	**6.94**		0.957	0.485	mg/Kg		07/23/21 13:55	07/26/21 17:50	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B23-0.5
Date Collected: 07/21/21 09:15
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-25
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**10.7**		4.78	0.925	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Molybdenum	ND		0.478	0.431	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Nickel	**4.25**		0.478	0.411	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Selenium	ND		4.78	1.77	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Silver	**0.403**	**J**	0.957	0.216	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Thallium	ND		4.78	1.42	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Vanadium	**9.70**		0.957	0.164	mg/Kg		07/23/21 13:55	07/26/21 17:50	1
Zinc	**22.8**		9.57	4.89	mg/Kg		07/23/21 13:55	07/26/21 17:50	1

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.88	1.30	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Arsenic	**2.32**	**J**	2.40	2.18	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Barium	**46.2**		0.481	0.213	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Beryllium	ND		0.240	0.164	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Cadmium	**0.468**	**J**	0.481	0.194	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Chromium	**8.44**		0.962	0.169	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Cobalt	**4.15**		0.962	0.219	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Copper	**9.77**		0.962	0.488	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Lead	**17.0**		4.81	0.930	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Molybdenum	ND		0.481	0.433	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Nickel	**5.95**		0.481	0.413	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Selenium	ND		4.81	1.78	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Silver	**0.416**	**J**	0.962	0.217	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Thallium	ND		4.81	1.43	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Vanadium	**13.6**		0.962	0.165	mg/Kg		07/23/21 13:55	07/26/21 17:53	1
Zinc	**33.0**		9.62	4.92	mg/Kg		07/23/21 13:55	07/26/21 17:53	1

Client Sample ID: B22-0.5
Date Collected: 07/21/21 13:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-29
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.99	1.35	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Arsenic	**3.21**		2.49	2.25	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Barium	**64.5**		0.498	0.221	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Beryllium	ND		0.249	0.170	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Cadmium	**0.685**		0.498	0.201	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Chromium	**12.9**		0.995	0.175	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Cobalt	**6.32**		0.995	0.226	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Copper	**14.3**		0.995	0.505	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Lead	**22.9**		4.98	0.962	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Molybdenum	ND		0.498	0.448	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Nickel	**9.00**		0.498	0.427	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Selenium	ND		4.98	1.84	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Silver	**0.531**	**J**	0.995	0.224	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Thallium	ND		4.98	1.47	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Vanadium	**20.6**		0.995	0.171	mg/Kg		07/23/21 13:55	07/26/21 17:56	1
Zinc	**46.8**		9.95	5.09	mg/Kg		07/23/21 13:55	07/26/21 17:56	1

Method: 6010B - Metals (ICP)

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.00	1.36	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Arsenic	ND		2.50	2.26	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Barium	**41.3**		0.500	0.222	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Beryllium	ND		0.250	0.171	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Cadmium	**0.458**	**J**	0.500	0.202	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Chromium	**9.05**		1.00	0.176	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Cobalt	**3.75**		1.00	0.227	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Copper	**9.80**		1.00	0.507	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Lead	**25.9**		5.00	0.967	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Molybdenum	ND		0.500	0.451	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Nickel	**5.32**		0.500	0.429	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Selenium	ND		5.00	1.85	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Silver	**0.374**	**J**	1.00	0.225	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Thallium	ND		5.00	1.48	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Vanadium	**12.0**		1.00	0.172	mg/Kg		07/23/21 13:55	07/26/21 17:58	1
Zinc	**34.3**		10.0	5.11	mg/Kg		07/23/21 13:55	07/26/21 17:58	1

Client Sample ID: B24-0.5
Date Collected: 07/21/21 09:18
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-33
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Arsenic	ND		2.58	2.33	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Barium	**38.0**		0.515	0.229	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Beryllium	ND		0.258	0.176	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Cadmium	**0.438**	**J**	0.515	0.208	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Chromium	**7.78**		1.03	0.181	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Cobalt	**3.76**		1.03	0.234	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Copper	**8.20**		1.03	0.523	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Lead	**12.0**		5.15	0.997	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Nickel	**5.16**		0.515	0.443	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Selenium	ND		5.15	1.91	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Silver	**0.300**	**J**	1.03	0.232	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Thallium	ND		5.15	1.53	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Vanadium	**12.7**		1.03	0.177	mg/Kg		07/23/21 13:55	07/26/21 18:09	1
Zinc	**27.5**		10.3	5.27	mg/Kg		07/23/21 13:55	07/26/21 18:09	1

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.05	1.38	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Arsenic	ND		2.54	2.30	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Barium	**39.3**		0.508	0.225	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Beryllium	ND		0.254	0.174	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Cadmium	**0.450**	**J**	0.508	0.205	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Chromium	**7.62**		1.02	0.178	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Cobalt	**3.83**		1.02	0.231	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Copper	**9.00**		1.02	0.515	mg/Kg		07/23/21 13:55	07/26/21 18:11	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**16.6**		5.08	0.982	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Molybdenum	ND		0.508	0.457	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Nickel	**5.30**		0.508	0.436	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Selenium	ND		5.08	1.88	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Silver	**0.479**	**J**	1.02	0.229	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Thallium	ND		5.08	1.50	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Vanadium	**12.1**		1.02	0.174	mg/Kg		07/23/21 13:55	07/26/21 18:11	1
Zinc	**31.4**		10.2	5.19	mg/Kg		07/23/21 13:55	07/26/21 18:11	1

Client Sample ID: B17-0.5
Date Collected: 07/21/21 13:47
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-37
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.11	1.40	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Arsenic	ND		2.59	2.35	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Barium	**37.8**		0.518	0.230	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Beryllium	ND		0.259	0.177	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Cadmium	**0.455**	**J**	0.518	0.209	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Chromium	**9.32**		1.04	0.182	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Cobalt	**3.56**		1.04	0.236	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Copper	**8.74**		1.04	0.525	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Lead	**17.7**		5.18	1.00	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Molybdenum	ND		0.518	0.467	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Nickel	**4.98**		0.518	0.445	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Selenium	ND		5.18	1.92	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Silver	**0.352**	**J**	1.04	0.233	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Thallium	ND		5.18	1.54	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Vanadium	**11.6**		1.04	0.178	mg/Kg		07/23/21 13:55	07/26/21 18:14	1
Zinc	**29.6**		10.4	5.30	mg/Kg		07/23/21 13:55	07/26/21 18:14	1

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.13	1.41	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Arsenic	ND		2.60	2.36	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Barium	**31.1**		0.521	0.231	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Beryllium	ND		0.260	0.178	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Cadmium	**0.343**	**J**	0.521	0.210	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Chromium	**6.10**		1.04	0.183	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Cobalt	**2.99**		1.04	0.237	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Copper	**7.04**		1.04	0.528	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Lead	**12.9**		5.21	1.01	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Molybdenum	ND		0.521	0.469	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Nickel	**4.20**		0.521	0.447	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Selenium	ND		5.21	1.93	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Silver	**0.283**	**J**	1.04	0.235	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Thallium	ND		5.21	1.54	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Vanadium	**9.70**		1.04	0.179	mg/Kg		07/23/21 13:55	07/26/21 18:17	1
Zinc	**24.3**		10.4	5.33	mg/Kg		07/23/21 13:55	07/26/21 18:17	1

Method: 6010B - Metals (ICP)

Client Sample ID: B16-0.5
Date Collected: 07/21/21 14:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-41
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Arsenic	ND		2.58	2.33	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Barium	**41.2**		0.515	0.229	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Beryllium	ND		0.258	0.176	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Cadmium	**0.389**	**J**	0.515	0.208	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Chromium	**6.66**		1.03	0.181	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Cobalt	**3.30**		1.03	0.234	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Copper	**7.82**		1.03	0.523	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Lead	**13.7**		5.15	0.997	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Nickel	**4.61**		0.515	0.443	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Selenium	ND		5.15	1.91	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Silver	**0.458**	**J**	1.03	0.232	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Thallium	ND		5.15	1.53	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Vanadium	**11.3**		1.03	0.177	mg/Kg		07/23/21 13:55	07/26/21 18:19	1
Zinc	**28.7**		10.3	5.27	mg/Kg		07/23/21 13:55	07/26/21 18:19	1

Client Sample ID: B16-5
Date Collected: 07/21/21 14:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.02	1.36	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Arsenic	ND		2.51	2.28	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Barium	**42.2**		0.503	0.223	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Beryllium	ND		0.251	0.172	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Cadmium	**0.447**	**J**	0.503	0.203	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Chromium	**7.93**		1.01	0.177	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Cobalt	**3.98**		1.01	0.228	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Copper	**9.05**		1.01	0.510	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Lead	**13.6**		5.03	0.972	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Molybdenum	ND		0.503	0.453	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Nickel	**5.70**		0.503	0.432	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Selenium	ND		5.03	1.86	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Silver	**0.345**	**J**	1.01	0.226	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Thallium	ND		5.03	1.49	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Vanadium	**13.2**		1.01	0.173	mg/Kg		07/23/21 13:55	07/26/21 18:22	1
Zinc	**29.0**		10.1	5.14	mg/Kg		07/23/21 13:55	07/26/21 18:22	1

Client Sample ID: B19-0.5
Date Collected: 07/21/21 09:05
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-45
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.93	1.32	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Arsenic	**2.98**		2.44	2.21	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Barium	**70.6**		0.488	0.216	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Beryllium	ND		0.244	0.167	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Cadmium	**0.602**		0.488	0.197	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Chromium	**11.6**		0.976	0.171	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Cobalt	**5.60**		0.976	0.222	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Copper	**12.1**		0.976	0.495	mg/Kg		07/23/21 13:55	07/26/21 18:24	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B19-0.5
Date Collected: 07/21/21 09:05
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-45
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**14.5**		4.88	0.943	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Molybdenum	ND		0.488	0.440	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Nickel	**8.36**		0.488	0.419	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Selenium	ND		4.88	1.81	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Silver	**0.545**	**J**	0.976	0.220	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Thallium	ND		4.88	1.45	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Vanadium	**19.0**		0.976	0.167	mg/Kg		07/23/21 13:55	07/26/21 18:24	1
Zinc	**38.2**		9.76	4.99	mg/Kg		07/23/21 13:55	07/26/21 18:24	1

Client Sample ID: B19-5
Date Collected: 07/21/21 14:34
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.87	1.30	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Arsenic	**2.55**		2.39	2.17	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Barium	**57.8**		0.478	0.212	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Beryllium	ND		0.239	0.164	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Cadmium	**0.546**		0.478	0.193	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Chromium	**10.4**		0.957	0.168	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Cobalt	**5.14**		0.957	0.218	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Copper	**11.1**		0.957	0.485	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Lead	**16.6**		4.78	0.925	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Molybdenum	ND		0.478	0.431	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Nickel	**7.30**		0.478	0.411	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Selenium	ND		4.78	1.77	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Silver	**0.471**	**J**	0.957	0.216	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Thallium	ND		4.78	1.42	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Vanadium	**16.8**		0.957	0.164	mg/Kg		07/23/21 13:55	07/26/21 18:27	1
Zinc	**36.7**		9.57	4.89	mg/Kg		07/23/21 13:55	07/26/21 18:27	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B12-0.5
Date Collected: 07/21/21 08:45
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0368	J	0.0794	0.0129	mg/Kg		07/26/21 06:07	07/26/21 13:51	1

Client Sample ID: B12-5
Date Collected: 07/21/21 09:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0596	J	0.0847	0.0137	mg/Kg		07/26/21 06:07	07/26/21 14:00	1

Client Sample ID: B13-0.5
Date Collected: 07/21/21 08:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0487	J	0.0847	0.0137	mg/Kg		07/26/21 16:35	07/26/21 17:59	1

Client Sample ID: B13-5
Date Collected: 07/21/21 10:07
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0338	J	0.0877	0.0142	mg/Kg		07/26/21 06:07	07/26/21 14:02	1

Client Sample ID: B14-0.5
Date Collected: 07/21/21 08:54
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0587	J	0.0862	0.0140	mg/Kg		07/26/21 06:07	07/26/21 14:04	1

Client Sample ID: B14-5
Date Collected: 07/21/21 10:41
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0473	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:06	1

Client Sample ID: B15-0.5
Date Collected: 07/21/21 09:00
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-13
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0346	J	0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 14:08	1

Client Sample ID: B15-5
Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0632	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:10	1

Client Sample ID: B20-0.5
Date Collected: 07/21/21 11:40
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-17
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0336	J	0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 14:12	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B20-5
Date Collected: 07/21/21 11:43
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0365	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:13	1

Client Sample ID: B18-0.5
Date Collected: 07/21/21 12:23
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-21
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0451	J	0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 14:15	1

Client Sample ID: B18-5
Date Collected: 07/21/21 12:25
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0440	J	0.0794	0.0129	mg/Kg		07/26/21 06:07	07/26/21 14:17	1

Client Sample ID: B23-0.5
Date Collected: 07/21/21 09:15
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-25
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0418	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:23	1

Client Sample ID: B23-5
Date Collected: 07/21/21 12:48
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0255	J	0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 14:25	1

Client Sample ID: B22-0.5
Date Collected: 07/21/21 13:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-29
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0590	J	0.0847	0.0137	mg/Kg		07/26/21 06:07	07/26/21 14:27	1

Client Sample ID: B22-5
Date Collected: 07/21/21 13:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0746	J	0.0877	0.0142	mg/Kg		07/26/21 06:07	07/26/21 14:28	1

Client Sample ID: B24-0.5
Date Collected: 07/21/21 09:18
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-33
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0359	J	0.0862	0.0140	mg/Kg		07/26/21 06:07	07/26/21 14:30	1

Client Sample ID: B24-5
Date Collected: 07/21/21 13:31
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0643	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:32	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B17-0.5
Date Collected: 07/21/21 13:47
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-37
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0369	J	0.0820	0.0133	mg/Kg		07/26/21 06:07	07/26/21 14:34	1

Client Sample ID: B17-5
Date Collected: 07/21/21 13:49
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0482	J	0.0847	0.0137	mg/Kg		07/26/21 06:07	07/26/21 14:36	1

Client Sample ID: B16-0.5
Date Collected: 07/21/21 14:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-41
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0546	J	0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 14:38	1

Client Sample ID: B16-5
Date Collected: 07/21/21 14:04
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.105		0.0833	0.0135	mg/Kg		07/26/21 07:03	07/26/21 13:22	1

Client Sample ID: B19-0.5
Date Collected: 07/21/21 09:05
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-45
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0854	J	0.0862	0.0140	mg/Kg		07/26/21 07:03	07/26/21 13:27	1

Client Sample ID: B19-5
Date Collected: 07/21/21 14:34
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.107		0.0877	0.0142	mg/Kg		07/26/21 07:03	07/26/21 13:29	1

Surrogate Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(76-120)	(47-142)	(64-141)	(80-120)
570-65062-2	B12-5	98	101	108	102
570-65062-2 MS	B12-5	101	103	107	102
570-65062-2 MSD	B12-5	101	107	109	100
570-65062-6	B13-5	93	104	108	100
570-65062-10	B14-5	97	103	107	101
570-65062-14	B15-5	97	99	106	101
570-65062-18	B20-5	97	102	105	101
570-65062-22	B18-5	98	100	103	100
570-65062-26	B23-5	96	103	104	102
570-65062-30	B22-5	97	102	106	102
570-65062-34	B24-5	97	103	106	101
570-65062-38	B17-5	98	102	106	100
570-65062-42	B16-5	96	103	108	101
570-65062-46	B19-5	94	101	108	101
LCS 570-166055/1-A	Lab Control Sample	100	102	103	101
LCSD 570-166055/2-A	Lab Control Sample Dup	101	103	102	101
MB 570-166055/3-A	Method Blank	98	98	101	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		OTCSN1
Lab Sample ID	Client Sample ID	(60-138)
570-64444-A-1-G MS	Matrix Spike	103
570-64444-A-1-H MSD	Matrix Spike Duplicate	113
570-65062-2	B12-5	100
570-65062-6	B13-5	85
570-65062-10	B14-5	84
570-65062-14	B15-5	111
570-65062-18	B20-5	115
570-65062-22	B18-5	108
570-65062-26	B23-5	111
570-65062-30	B22-5	109
570-65062-34	B24-5	107
570-65062-38	B17-5	98
570-65062-42	B16-5	118
570-65062-46	B19-5	103
LCS 570-166589/2-A	Lab Control Sample	109
LCSD 570-166589/3-A	Lab Control Sample Dup	110
MB 570-166589/1-A	Method Blank	108

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Surrogate Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(38-148)	(37-151)
570-65062-1	B12-0.5	66	74
570-65062-1 MS	B12-0.5	74	80
570-65062-1 MSD	B12-0.5	64	71
570-65062-5	B13-0.5	68	79
570-65062-9	B14-0.5	67	127
570-65062-13	B15-0.5	69	72
570-65062-17	B20-0.5	67	114
570-65062-21	B18-0.5	65	65
570-65062-25	B23-0.5	69	68
570-65062-29	B22-0.5	79	79
570-65062-33	B24-0.5	61	68
570-65062-37	B17-0.5	66	70
570-65062-41	B16-0.5	53	58
570-65062-45	B19-0.5	67	82
LCS 570-165909/2-A	Lab Control Sample	87	86
LCSD 570-165909/3-A	Lab Control Sample Dup	87	84
MB 570-165909/1-A	Method Blank	86	92

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(25-126)	(20-155)
570-65062-49	B21-0.5	77	91

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-166055/3-A
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Chloroform	ND		0.99	0.58	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
cis-1,2-Dichloroethene	ND		0.99	0.33	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Ethanol	ND		250	65	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Ethylbenzene	ND		0.99	0.20	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
p-Isopropyltoluene	ND		0.99	0.69	ug/Kg		07/23/21 08:42	07/23/21 11:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166055/3-A
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Styrene	ND		0.99	0.69	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Vinyl acetate	ND		9.9	3.9	ug/Kg		07/23/21 08:42	07/23/21 11:26	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 08:42	07/23/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/23/21 08:42*	*07/23/21 11:26*	*1*
Dibromofluoromethane (Surr)	*98*		*47 - 142*	*07/23/21 08:42*	*07/23/21 11:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 141*	*07/23/21 08:42*	*07/23/21 11:26*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*07/23/21 08:42*	*07/23/21 11:26*	*1*

Lab Sample ID: LCS 570-166055/1-A
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	49.9	39.90		ug/Kg		80	76 - 120
Carbon tetrachloride	49.9	54.85		ug/Kg		110	68 - 132
Chlorobenzene	49.9	41.47		ug/Kg		83	80 - 120
1,2-Dibromoethane	49.9	42.47		ug/Kg		85	80 - 120
1,2-Dichlorobenzene	49.9	41.45		ug/Kg		83	80 - 120
1,2-Dichloroethane	49.9	43.12		ug/Kg		86	76 - 126
1,1-Dichloroethene	49.9	36.03		ug/Kg		72	68 - 120
Di-isopropyl ether (DIPE)	49.9	39.60		ug/Kg		79	69 - 123
Ethanol	499	386.0		ug/Kg		77	46 - 152
Ethylbenzene	49.9	40.66		ug/Kg		81	80 - 120
Ethyl-t-butyl ether (ETBE)	49.9	39.97		ug/Kg		80	69 - 121
Methyl-t-Butyl Ether (MTBE)	49.9	39.84		ug/Kg		80	70 - 120
m,p-Xylene	99.8	82.35		ug/Kg		83	75 - 122

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166055/1-A
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166055

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			49.9	42.01		ug/Kg		84	76 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*76 - 120*
Dibromofluoromethane (Surr)	*102*		*47 - 142*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 141*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 570-166055/2-A
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166055

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			49.3	39.95		ug/Kg		81	76 - 120	0	20
Carbon tetrachloride			49.3	54.57		ug/Kg		111	68 - 132	1	20
Chlorobenzene			49.3	42.51		ug/Kg		86	80 - 120	2	20
1,2-Dibromoethane			49.3	42.98		ug/Kg		87	80 - 120	1	20
1,2-Dichlorobenzene			49.3	42.79		ug/Kg		87	80 - 120	3	20
1,2-Dichloroethane			49.3	42.09		ug/Kg		85	76 - 126	2	20
1,1-Dichloroethene			49.3	36.86		ug/Kg		75	68 - 120	2	20
Di-isopropyl ether (DIPE)			49.3	39.42		ug/Kg		80	69 - 123	0	20
Ethanol			493	402.5		ug/Kg		82	46 - 152	4	30
Ethylbenzene			49.3	41.16		ug/Kg		83	80 - 120	1	20
Ethyl-t-butyl ether (ETBE)			49.3	40.07		ug/Kg		81	69 - 121	0	20
Methyl-t-Butyl Ether (MTBE)			49.3	39.84		ug/Kg		81	70 - 120	0	20
m,p-Xylene			98.6	84.00		ug/Kg		85	75 - 122	2	20
o-Xylene			49.3	43.11		ug/Kg		87	76 - 125	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*76 - 120*
Dibromofluoromethane (Surr)	*103*		*47 - 142*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 141*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 570-65062-2 MS
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: B12-5
Prep Type: Total/NA
Prep Batch: 166055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	ND		50.7	41.69		ug/Kg		82	70 - 125		
Carbon tetrachloride	ND		50.7	58.49		ug/Kg		115	60 - 130		
Chlorobenzene	ND		50.7	42.97		ug/Kg		85	65 - 125		
1,2-Dibromoethane	ND		50.7	43.29		ug/Kg		85	65 - 125		
1,2-Dichlorobenzene	ND		50.7	40.19		ug/Kg		79	47 - 130		
1,2-Dichloroethane	ND		50.7	44.57		ug/Kg		88	66 - 127		
1,1-Dichloroethene	ND		50.7	40.34		ug/Kg		80	60 - 125		
Di-isopropyl ether (DIPE)	ND		50.7	40.92		ug/Kg		81	62 - 125		
Ethanol	ND		507	354.1		ug/Kg		70	21 - 168		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-65062-2 MS
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: B12-5
Prep Type: Total/NA
Prep Batch: 166055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		50.7	42.79		ug/Kg		84	64 - 125
Ethyl-t-butyl ether (ETBE)	ND		50.7	41.29		ug/Kg		81	61 - 125
Methyl-t-Butyl Ether (MTBE)	ND		50.7	40.70		ug/Kg		80	61 - 125
m,p-Xylene	ND		101	84.97		ug/Kg		84	60 - 125
o-Xylene	ND		50.7	43.01		ug/Kg		85	59 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*76 - 120*
Dibromofluoromethane (Surr)	*103*		*47 - 142*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 141*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 570-65062-2 MSD
Matrix: Solid
Analysis Batch: 166034

Client Sample ID: B12-5
Prep Type: Total/NA
Prep Batch: 166055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		51.5	38.93		ug/Kg		76	70 - 125	7	20
Carbon tetrachloride	ND		51.5	56.56		ug/Kg		110	60 - 130	3	20
Chlorobenzene	ND		51.5	39.82		ug/Kg		77	65 - 125	8	22
1,2-Dibromoethane	ND		51.5	40.18		ug/Kg		78	65 - 125	7	21
1,2-Dichlorobenzene	ND		51.5	37.03		ug/Kg		72	47 - 130	8	29
1,2-Dichloroethane	ND		51.5	40.68		ug/Kg		79	66 - 127	9	20
1,1-Dichloroethene	ND		51.5	38.67		ug/Kg		75	60 - 125	4	20
Di-isopropyl ether (DIPE)	ND		51.5	38.84		ug/Kg		75	62 - 125	5	20
Ethanol	ND		515	301.3		ug/Kg		58	21 - 168	16	40
Ethylbenzene	ND		51.5	39.76		ug/Kg		77	64 - 125	7	22
Ethyl-t-butyl ether (ETBE)	ND		51.5	39.45		ug/Kg		77	61 - 125	5	20
Methyl-t-Butyl Ether (MTBE)	ND		51.5	39.86		ug/Kg		77	61 - 125	2	20
m,p-Xylene	ND		103	79.41		ug/Kg		77	60 - 125	7	24
o-Xylene	ND		51.5	40.43		ug/Kg		78	59 - 128	6	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*76 - 120*
Dibromofluoromethane (Surr)	*107*		*47 - 142*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 141*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-166589/1-A
Matrix: Solid
Analysis Batch: 166559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C7 as C7	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C8 as C8	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 570-166589/1-A
Matrix: Solid
Analysis Batch: 166559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C10	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C11-C12	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C13-C14	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C15-C16	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C17-C18	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C19-C20	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C21-C22	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C23-C24	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C25-C28	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C29-C32	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C33-C36	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C37-C40	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C41-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1
C6-C44	ND		5.0	3.8	mg/Kg		07/26/21 13:46	07/26/21 21:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-5 ctacoCane (Surr)	*108*		*60 - 138*	*07/26/21 13:46*	*07/26/21 21:08*	*1*

Lab Sample ID: LCS 570-166589/2-A
Matrix: Solid
Analysis Batch: 166559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166589

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			400	425.3		mg/Kg		106	80 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-5 ctacoCane (Surr)	*109*		*60 - 138*

Lab Sample ID: LCSD 570-166589/3-A
Matrix: Solid
Analysis Batch: 166559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166589

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	419.5		mg/Kg		105	80 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-5 ctacoCane (Surr)	*110*		*60 - 138*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-165909/1-A
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/22/21 15:23	07/23/21 13:07	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 570-165909/1-A
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Aldrin	ND		5.0	0.72	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Chlordane	ND		25	2.4	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endrin	ND		5.0	0.33	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/22/21 15:23	07/23/21 13:07	1
Toxaphene	ND		25	20	ug/Kg		07/22/21 15:23	07/23/21 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-sxlene	*86*		*38 - 148*	*07/22/21 1y:23*	*07/23/21 13:07*	*1*
DCB Decachlorobiphenxl (Surr)	*92*		*37 - 1y1*	*07/22/21 1y:23*	*07/23/21 13:07*	*1*

Lab Sample ID: LCS 570-165909/2-A
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 165909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	25.0	20.85		ug/Kg		83	54 - 154
4,4'-DDE	25.0	20.83		ug/Kg		83	51 - 149
4,4'-DDT	25.0	19.03		ug/Kg		76	39 - 152
Aldrin	25.0	18.79		ug/Kg		75	52 - 138
alpha-BHC	25.0	19.76		ug/Kg		79	51 - 140
alpha-Chlordane	25.0	18.60		ug/Kg		74	53 - 141
beta-BHC	25.0	18.19		ug/Kg		73	53 - 141
delta-BHC	25.0	20.38		ug/Kg		82	20 - 132
Dieldrin	25.0	18.79		ug/Kg		75	52 - 144
Endosulfan I	25.0	17.88		ug/Kg		72	49 - 139
Endosulfan II	25.0	18.69		ug/Kg		75	51 - 150
Endosulfan sulfate	25.0	18.42		ug/Kg		74	45 - 139
Endrin	25.0	19.14		ug/Kg		77	53 - 151
Endrin aldehyde	25.0	20.08		ug/Kg		80	31 - 146
gamma-Chlordane	25.0	18.91		ug/Kg		76	46 - 156
gamma-BHC	25.0	19.65		ug/Kg		79	53 - 141
Heptachlor	25.0	19.65		ug/Kg		79	52 - 144
Heptachlor epoxide	25.0	19.16		ug/Kg		77	54 - 141

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-165909/2-A
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 165909

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methoxychlor			25.0	17.66		ug/Kg		71	47 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-sxlene	*87*		*38 - 148*
DCB Decachlorobiphenxl (Surr)	*86*		*37 - 1y1*

Lab Sample ID: LCSD 570-165909/3-A
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 165909

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD			25.0	21.50		ug/Kg		86	54 - 154	3	30
4,4'-DDE			25.0	21.42		ug/Kg		86	51 - 149	3	28
4,4'-DDT			25.0	19.32		ug/Kg		77	39 - 152	2	31
Aldrin			25.0	19.19		ug/Kg		77	52 - 138	2	30
alpha-BHC			25.0	20.12		ug/Kg		80	51 - 140	2	29
alpha-Chlordane			25.0	19.02		ug/Kg		76	53 - 141	2	28
beta-BHC			25.0	18.68		ug/Kg		75	53 - 141	3	29
delta-BHC			25.0	20.89		ug/Kg		84	20 - 132	2	40
Dieldrin			25.0	19.24		ug/Kg		77	52 - 144	2	28
Endosulfan I			25.0	18.23		ug/Kg		73	49 - 139	2	28
Endosulfan II			25.0	19.04		ug/Kg		76	51 - 150	2	29
Endosulfan sulfate			25.0	18.82		ug/Kg		75	45 - 139	2	30
Endrin			25.0	19.57		ug/Kg		78	53 - 151	2	29
Endrin aldehyde			25.0	21.11		ug/Kg		84	31 - 146	5	40
gamma-Chlordane			25.0	19.28		ug/Kg		77	46 - 156	2	39
gamma-BHC			25.0	20.04		ug/Kg		80	53 - 141	2	29
Heptachlor			25.0	20.02		ug/Kg		80	52 - 144	2	29
Heptachlor epoxide			25.0	19.57		ug/Kg		78	54 - 141	2	29
Methoxychlor			25.0	18.73		ug/Kg		75	47 - 148	6	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-sxlene	*87*		*38 - 148*
DCB Decachlorobiphenxl (Surr)	*84*		*37 - 1y1*

Lab Sample ID: 570-65062-1 MS
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: B12-0.5
Prep Type: Total/NA
Prep Batch: 165909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
4,4'-DDD	ND		24.8	19.17		ug/Kg		77	27 - 144		
4,4'-DDE	ND		24.8	20.50		ug/Kg		83	28 - 141		
4,4'-DDT	ND	F2	24.8	18.47		ug/Kg		74	10 - 154		
Aldrin	ND		24.8	16.37		ug/Kg		66	26 - 125		
alpha-BHC	ND		24.8	16.85		ug/Kg		68	24 - 125		
alpha-Chlordane	ND		24.8	17.06		ug/Kg		69	17 - 144		
beta-BHC	ND		24.8	16.45		ug/Kg		66	28 - 125		
delta-BHC	ND		24.8	18.11		ug/Kg		73	10 - 125		

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 570-65062-1 MS
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: B12-0.5
Prep Type: Total/NA
Prep Batch: 165909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dieldrin	ND		24.8	17.71		ug/Kg		71	19 - 145
Endosulfan I	ND		24.8	16.53		ug/Kg		67	25 - 125
Endosulfan II	ND		24.8	17.29		ug/Kg		70	13 - 142
Endosulfan sulfate	ND		24.8	17.09		ug/Kg		69	14 - 126
Endrin	ND		24.8	18.01		ug/Kg		73	28 - 139
Endrin aldehyde	ND		24.8	17.88		ug/Kg		72	12 - 125
gamma-Chlordane	ND		24.8	21.80		ug/Kg		88	10 - 160
gamma-BHC	ND		24.8	16.83		ug/Kg		68	24 - 125
Heptachlor	ND		24.8	16.48		ug/Kg		66	19 - 127
Heptachlor epoxide	ND		24.8	16.39		ug/Kg		66	33 - 123
Methoxychlor	ND	F2	24.8	18.95		ug/Kg		76	19 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-sxlene	*74*		*38 - 148*
DCB Decachlorobiphenxl (Surr)	*80*		*37 - 1y1*

Lab Sample ID: 570-65062-1 MSD
Matrix: Solid
Analysis Batch: 166067

Client Sample ID: B12-0.5
Prep Type: Total/NA
Prep Batch: 165909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		24.8	16.85		ug/Kg		68	27 - 144	13	40
4,4'-DDE	ND		24.8	16.28		ug/Kg		66	28 - 141	23	32
4,4'-DDT	ND	F2	24.8	11.70	F2	ug/Kg		47	10 - 154	45	40
Aldrin	ND		24.8	13.56		ug/Kg		55	26 - 125	19	40
alpha-BHC	ND		24.8	13.90		ug/Kg		56	24 - 125	19	40
alpha-Chlordane	ND		24.8	13.76		ug/Kg		56	17 - 144	21	40
beta-BHC	ND		24.8	13.34		ug/Kg		54	28 - 125	21	39
delta-BHC	ND		24.8	14.76		ug/Kg		60	10 - 125	20	40
Dieldrin	ND		24.8	14.39		ug/Kg		58	19 - 145	21	39
Endosulfan I	ND		24.8	13.27		ug/Kg		54	25 - 125	22	39
Endosulfan II	ND		24.8	14.23		ug/Kg		57	13 - 142	19	40
Endosulfan sulfate	ND		24.8	13.92		ug/Kg		56	14 - 126	20	38
Endrin	ND		24.8	14.49		ug/Kg		58	28 - 139	22	40
Endrin aldehyde	ND		24.8	14.68		ug/Kg		59	12 - 125	20	40
gamma-Chlordane	ND		24.8	20.13		ug/Kg		81	10 - 160	8	40
gamma-BHC	ND		24.8	13.90		ug/Kg		56	24 - 125	19	40
Heptachlor	ND		24.8	13.42		ug/Kg		54	19 - 127	21	40
Heptachlor epoxide	ND		24.8	13.63		ug/Kg		55	33 - 123	18	34
Methoxychlor	ND	F2	24.8	12.18	F2	ug/Kg		49	19 - 128	43	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-sxlene	*64*		*38 - 148*
DCB Decachlorobiphenxl (Surr)	*71*		*37 - 1y1*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-166170/1-A
Matrix: Solid
Analysis Batch: 166516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.00	1.36	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Arsenic	ND		2.50	2.26	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Barium	ND		0.500	0.222	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Beryllium	ND		0.250	0.171	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Cadmium	ND		0.500	0.202	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Chromium	ND		1.00	0.176	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Cobalt	ND		1.00	0.227	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Copper	ND		1.00	0.507	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Lead	ND		5.00	0.967	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Molybdenum	ND		0.500	0.451	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Nickel	ND		0.500	0.429	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Selenium	ND		5.00	1.85	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Silver	ND		1.00	0.225	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Thallium	ND		5.00	1.48	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Vanadium	ND		1.00	0.172	mg/Kg		07/23/21 13:47	07/26/21 10:13	1
Zinc	ND		10.0	5.11	mg/Kg		07/23/21 13:47	07/26/21 10:13	1

Lab Sample ID: LCS 570-166170/2-A
Matrix: Solid
Analysis Batch: 166516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	23.9	22.53		mg/Kg		94	80 - 120
Arsenic	23.9	22.02		mg/Kg		92	80 - 120
Barium	23.9	23.55		mg/Kg		98	80 - 120
Beryllium	23.9	22.15		mg/Kg		93	80 - 120
Cadmium	23.9	22.83		mg/Kg		95	80 - 120
Chromium	23.9	23.49		mg/Kg		98	80 - 120
Cobalt	23.9	23.23		mg/Kg		97	80 - 120
Copper	23.9	24.65		mg/Kg		103	80 - 120
Lead	23.9	23.61		mg/Kg		99	80 - 120
Molybdenum	23.9	23.08		mg/Kg		96	80 - 120
Nickel	23.9	23.89		mg/Kg		100	80 - 120
Selenium	23.9	21.38		mg/Kg		89	80 - 120
Silver	12.0	11.41		mg/Kg		95	80 - 120
Thallium	23.9	22.69		mg/Kg		95	80 - 120
Vanadium	23.9	23.14		mg/Kg		97	80 - 120
Zinc	23.9	22.93		mg/Kg		96	80 - 120

Lab Sample ID: LCSD 570-166170/3-A
Matrix: Solid
Analysis Batch: 166516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166170

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	25.8	23.80		mg/Kg		92	80 - 120	5	20
Arsenic	25.8	23.24		mg/Kg		90	80 - 120	5	20
Barium	25.8	25.30		mg/Kg		98	80 - 120	7	20
Beryllium	25.8	23.68		mg/Kg		92	80 - 120	7	20
Cadmium	25.8	24.35		mg/Kg		94	80 - 120	6	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-166170/3-A
Matrix: Solid
Analysis Batch: 166516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166170

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	25.8	25.14		mg/Kg		98	80 - 120	7	20
Cobalt	25.8	24.80		mg/Kg		96	80 - 120	7	20
Copper	25.8	26.42		mg/Kg		103	80 - 120	7	20
Lead	25.8	24.97		mg/Kg		97	80 - 120	6	20
Molybdenum	25.8	24.99		mg/Kg		97	80 - 120	8	20
Nickel	25.8	25.54		mg/Kg		99	80 - 120	7	20
Selenium	25.8	22.92		mg/Kg		89	80 - 120	7	20
Silver	12.9	12.27		mg/Kg		95	80 - 120	7	20
Thallium	25.8	24.55		mg/Kg		95	80 - 120	8	20
Vanadium	25.8	24.81		mg/Kg		96	80 - 120	7	20
Zinc	25.8	24.46		mg/Kg		95	80 - 120	6	20

Lab Sample ID: MB 570-166171/1-A
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Arsenic	ND		2.58	2.33	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Barium	ND		0.515	0.229	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Beryllium	ND		0.258	0.176	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Cadmium	ND		0.515	0.208	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Chromium	ND		1.03	0.181	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Cobalt	ND		1.03	0.234	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Copper	ND		1.03	0.523	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Lead	ND		5.15	0.997	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Nickel	ND		0.515	0.443	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Selenium	ND		5.15	1.91	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Silver	ND		1.03	0.232	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Thallium	ND		5.15	1.53	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Vanadium	ND		1.03	0.177	mg/Kg		07/23/21 13:55	07/26/21 17:07	1
Zinc	ND		10.3	5.27	mg/Kg		07/23/21 13:55	07/26/21 17:07	1

Lab Sample ID: LCS 570-166171/2-A
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	25.1	25.65		mg/Kg		102	80 - 120
Arsenic	25.1	26.28		mg/Kg		105	80 - 120
Barium	25.1	27.24		mg/Kg		108	80 - 120
Beryllium	25.1	24.95		mg/Kg		99	80 - 120
Cadmium	25.1	25.52		mg/Kg		102	80 - 120
Chromium	25.1	25.52		mg/Kg		102	80 - 120
Cobalt	25.1	25.53		mg/Kg		102	80 - 120
Copper	25.1	26.33		mg/Kg		105	80 - 120
Lead	25.1	27.04		mg/Kg		108	80 - 120
Molybdenum	25.1	25.61		mg/Kg		102	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-166171/2-A
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	25.1	25.21		mg/Kg		100	80 - 120
Selenium	25.1	25.03		mg/Kg		100	80 - 120
Silver	12.6	11.93		mg/Kg		95	80 - 120
Thallium	25.1	27.66		mg/Kg		110	80 - 120
Vanadium	25.1	25.27		mg/Kg		101	80 - 120
Zinc	25.1	26.63		mg/Kg		106	80 - 120

Lab Sample ID: LCSD 570-166171/3-A
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	25.9	27.50		mg/Kg		106	80 - 120	7	20
Arsenic	25.9	28.38		mg/Kg		110	80 - 120	8	20
Barium	25.9	29.16		mg/Kg		113	80 - 120	7	20
Beryllium	25.9	26.50		mg/Kg		102	80 - 120	6	20
Cadmium	25.9	27.57		mg/Kg		106	80 - 120	8	20
Chromium	25.9	27.30		mg/Kg		105	80 - 120	7	20
Cobalt	25.9	27.44		mg/Kg		106	80 - 120	7	20
Copper	25.9	28.29		mg/Kg		109	80 - 120	7	20
Lead	25.9	29.33		mg/Kg		113	80 - 120	8	20
Molybdenum	25.9	27.55		mg/Kg		106	80 - 120	7	20
Nickel	25.9	27.06		mg/Kg		104	80 - 120	7	20
Selenium	25.9	26.99		mg/Kg		104	80 - 120	8	20
Silver	13.0	12.96		mg/Kg		100	80 - 120	8	20
Thallium	25.9	29.87		mg/Kg		115	80 - 120	8	20
Vanadium	25.9	26.86		mg/Kg		104	80 - 120	6	20
Zinc	25.9	28.73		mg/Kg		111	80 - 120	8	20

Lab Sample ID: 570-65062-10 MS
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: B14-5
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	26.3	11.90	F1	mg/Kg		45	75 - 125
Arsenic	2.86		26.3	27.37		mg/Kg		93	75 - 125
Barium	57.4		26.3	83.35		mg/Kg		99	75 - 125
Beryllium	ND		26.3	23.07		mg/Kg		88	75 - 125
Cadmium	0.618		26.3	24.04		mg/Kg		89	75 - 125
Chromium	14.3	F1	26.3	34.31		mg/Kg		76	75 - 125
Cobalt	5.14		26.3	27.50		mg/Kg		85	75 - 125
Copper	12.8		26.3	35.48		mg/Kg		86	75 - 125
Lead	39.7	F1	26.3	43.10	F1	mg/Kg		13	75 - 125
Molybdenum	ND		26.3	23.49		mg/Kg		89	75 - 125
Nickel	7.81		26.3	31.66		mg/Kg		91	75 - 125
Selenium	ND	F1	26.3	20.04		mg/Kg		76	75 - 125
Silver	0.358	J	13.2	12.95		mg/Kg		96	75 - 125
Thallium	ND		26.3	24.15		mg/Kg		92	75 - 125
Vanadium	17.1		26.3	41.22		mg/Kg		92	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-65062-10 MS
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: B14-5
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	46.8	F1	26.3	65.45	F1	mg/Kg		71	75 - 125

Lab Sample ID: 570-65062-10 MSD
Matrix: Solid
Analysis Batch: 166819

Client Sample ID: B14-5
Prep Type: Total/NA
Prep Batch: 166171

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	25.6	11.38	F1	mg/Kg		44	75 - 125	4	20
Arsenic	2.86		25.6	25.77		mg/Kg		89	75 - 125	6	20
Barium	57.4		25.6	79.61		mg/Kg		87	75 - 125	5	20
Beryllium	ND		25.6	22.21		mg/Kg		87	75 - 125	4	20
Cadmium	0.618		25.6	22.90		mg/Kg		87	75 - 125	5	20
Chromium	14.3	F1	25.6	32.85	F1	mg/Kg		72	75 - 125	4	20
Cobalt	5.14		25.6	26.32		mg/Kg		83	75 - 125	4	20
Copper	12.8		25.6	33.71		mg/Kg		81	75 - 125	5	20
Lead	39.7	F1	25.6	41.11	F1	mg/Kg		5	75 - 125	5	20
Molybdenum	ND		25.6	22.32		mg/Kg		87	75 - 125	5	20
Nickel	7.81		25.6	30.21		mg/Kg		87	75 - 125	5	20
Selenium	ND	F1	25.6	18.93	F1	mg/Kg		74	75 - 125	6	20
Silver	0.358	J	12.8	12.43		mg/Kg		94	75 - 125	4	20
Thallium	ND		25.6	23.14		mg/Kg		90	75 - 125	4	20
Vanadium	17.1		25.6	39.60		mg/Kg		88	75 - 125	4	20
Zinc	46.8	F1	25.6	61.97	F1	mg/Kg		59	75 - 125	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-166407/1-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		07/26/21 06:07	07/26/21 13:46	1

Lab Sample ID: LCS 570-166407/2-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.820	0.7705		mg/Kg		94	85 - 121

Lab Sample ID: LCSD 570-166407/3-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.7762		mg/Kg		93	85 - 121	1	10

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 570-65062-1 MS
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: B12-0.5
Prep Type: Total/NA
Prep Batch: 166407

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0368	J	0.820	0.7509		mg/Kg		87	71 - 137

Lab Sample ID: 570-65062-1 MSD
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: B12-0.5
Prep Type: Total/NA
Prep Batch: 166407

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0368	J	0.833	0.7565		mg/Kg		86	71 - 137	1	14

Lab Sample ID: MB 570-166409/1-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0877	0.0142	mg/Kg		07/26/21 07:03	07/26/21 13:16	1

Lab Sample ID: LCS 570-166409/2-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.862	0.7917		mg/Kg		92	85 - 121

Lab Sample ID: LCSD 570-166409/3-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.877	0.8218		mg/Kg		94	85 - 121	4	10

Lab Sample ID: 570-65062-42 MS
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: B16-5
Prep Type: Total/NA
Prep Batch: 166409

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.105		0.820	0.8612		mg/Kg		92	71 - 137

Lab Sample ID: 570-65062-42 MSD
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: B16-5
Prep Type: Total/NA
Prep Batch: 166409

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.105		0.847	0.8818		mg/Kg		92	71 - 137	2	14

Lab Sample ID: MB 570-166590/1-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166590

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		07/26/21 13:50	07/26/21 17:07	1

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: LCS 570-166590/2-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166590

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.820	0.8230		mg/Kg		100	85 - 121

Lab Sample ID: LCSD 570-166590/3-A
Matrix: Solid
Analysis Batch: 166568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 166590

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.8296		mg/Kg		100	85 - 121	1	10

GC/MS VOA

Analysis Batch: 166034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-2	B12-5	Total/NA	Solid	8260B	166055
570-65062-6	B13-5	Total/NA	Solid	8260B	166055
570-65062-10	B14-5	Total/NA	Solid	8260B	166055
570-65062-14	B15-5	Total/NA	Solid	8260B	166055
570-65062-18	B20-5	Total/NA	Solid	8260B	166055
570-65062-22	B18-5	Total/NA	Solid	8260B	166055
570-65062-26	B23-5	Total/NA	Solid	8260B	166055
570-65062-30	B22-5	Total/NA	Solid	8260B	166055
570-65062-34	B24-5	Total/NA	Solid	8260B	166055
570-65062-38	B17-5	Total/NA	Solid	8260B	166055
570-65062-42	B16-5	Total/NA	Solid	8260B	166055
570-65062-46	B19-5	Total/NA	Solid	8260B	166055
MB 570-166055/3-A	Method Blank	Total/NA	Solid	8260B	166055
LCS 570-166055/1-A	Lab Control Sample	Total/NA	Solid	8260B	166055
LCSD 570-166055/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	166055
570-65062-2 MS	B12-5	Total/NA	Solid	8260B	166055
570-65062-2 MSD	B12-5	Total/NA	Solid	8260B	166055

Prep Batch: 166055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-2	B12-5	Total/NA	Solid	5030C	
570-65062-6	B13-5	Total/NA	Solid	5030C	
570-65062-10	B14-5	Total/NA	Solid	5030C	
570-65062-14	B15-5	Total/NA	Solid	5030C	
570-65062-18	B20-5	Total/NA	Solid	5030C	
570-65062-22	B18-5	Total/NA	Solid	5030C	
570-65062-26	B23-5	Total/NA	Solid	5030C	
570-65062-30	B22-5	Total/NA	Solid	5030C	
570-65062-34	B24-5	Total/NA	Solid	5030C	
570-65062-38	B17-5	Total/NA	Solid	5030C	
570-65062-42	B16-5	Total/NA	Solid	5030C	
570-65062-46	B19-5	Total/NA	Solid	5030C	
MB 570-166055/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-166055/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-166055/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-65062-2 MS	B12-5	Total/NA	Solid	5030C	
570-65062-2 MSD	B12-5	Total/NA	Solid	5030C	

GC Semi VOA

Prep Batch: 165863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-49	B21-0.5	Total/NA	Solid	3546	

Prep Batch: 165909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	3546	
570-65062-5	B13-0.5	Total/NA	Solid	3546	
570-65062-9	B14-0.5	Total/NA	Solid	3546	
570-65062-13	B15-0.5	Total/NA	Solid	3546	
570-65062-17	B20-0.5	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 165909 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-21	B18-0.5	Total/NA	Solid	3546	
570-65062-25	B23-0.5	Total/NA	Solid	3546	
570-65062-29	B22-0.5	Total/NA	Solid	3546	
570-65062-33	B24-0.5	Total/NA	Solid	3546	
570-65062-37	B17-0.5	Total/NA	Solid	3546	
570-65062-41	B16-0.5	Total/NA	Solid	3546	
570-65062-45	B19-0.5	Total/NA	Solid	3546	
MB 570-165909/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-165909/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-165909/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-65062-1 MS	B12-0.5	Total/NA	Solid	3546	
570-65062-1 MSD	B12-0.5	Total/NA	Solid	3546	

Analysis Batch: 166067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	8081A	165909
570-65062-5	B13-0.5	Total/NA	Solid	8081A	165909
570-65062-9	B14-0.5	Total/NA	Solid	8081A	165909
570-65062-13	B15-0.5	Total/NA	Solid	8081A	165909
570-65062-17	B20-0.5	Total/NA	Solid	8081A	165909
570-65062-21	B18-0.5	Total/NA	Solid	8081A	165909
570-65062-25	B23-0.5	Total/NA	Solid	8081A	165909
570-65062-29	B22-0.5	Total/NA	Solid	8081A	165909
570-65062-33	B24-0.5	Total/NA	Solid	8081A	165909
570-65062-37	B17-0.5	Total/NA	Solid	8081A	165909
570-65062-41	B16-0.5	Total/NA	Solid	8081A	165909
570-65062-45	B19-0.5	Total/NA	Solid	8081A	165909
MB 570-165909/1-A	Method Blank	Total/NA	Solid	8081A	165909
LCS 570-165909/2-A	Lab Control Sample	Total/NA	Solid	8081A	165909
LCSD 570-165909/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	165909
570-65062-1 MS	B12-0.5	Total/NA	Solid	8081A	165909
570-65062-1 MSD	B12-0.5	Total/NA	Solid	8081A	165909

Analysis Batch: 166456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-49	B21-0.5	Total/NA	Solid	8082	165863

Analysis Batch: 166559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-2	B12-5	Total/NA	Solid	8015B	166589
570-65062-6	B13-5	Total/NA	Solid	8015B	166589
570-65062-10	B14-5	Total/NA	Solid	8015B	166589
570-65062-14	B15-5	Total/NA	Solid	8015B	166589
570-65062-18	B20-5	Total/NA	Solid	8015B	166589
570-65062-22	B18-5	Total/NA	Solid	8015B	166589
570-65062-26	B23-5	Total/NA	Solid	8015B	166589
570-65062-30	B22-5	Total/NA	Solid	8015B	166589
570-65062-34	B24-5	Total/NA	Solid	8015B	166589
570-65062-38	B17-5	Total/NA	Solid	8015B	166589
570-65062-42	B16-5	Total/NA	Solid	8015B	166589
570-65062-46	B19-5	Total/NA	Solid	8015B	166589

GC Semi VOA (Continued)

Analysis Batch: 166559 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-166589/1-A	Method Blank	Total/NA	Solid	8015B	166589
LCS 570-166589/2-A	Lab Control Sample	Total/NA	Solid	8015B	166589
LCSD 570-166589/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	166589

Prep Batch: 166589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-2	B12-5	Total/NA	Solid	3550C	
570-65062-6	B13-5	Total/NA	Solid	3550C	
570-65062-10	B14-5	Total/NA	Solid	3550C	
570-65062-14	B15-5	Total/NA	Solid	3550C	
570-65062-18	B20-5	Total/NA	Solid	3550C	
570-65062-22	B18-5	Total/NA	Solid	3550C	
570-65062-26	B23-5	Total/NA	Solid	3550C	
570-65062-30	B22-5	Total/NA	Solid	3550C	
570-65062-34	B24-5	Total/NA	Solid	3550C	
570-65062-38	B17-5	Total/NA	Solid	3550C	
570-65062-42	B16-5	Total/NA	Solid	3550C	
570-65062-46	B19-5	Total/NA	Solid	3550C	
MB 570-166589/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-166589/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-166589/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Metals

Prep Batch: 166170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	3050B	
570-65062-2	B12-5	Total/NA	Solid	3050B	
570-65062-5	B13-0.5	Total/NA	Solid	3050B	
570-65062-6	B13-5	Total/NA	Solid	3050B	
570-65062-9	B14-0.5	Total/NA	Solid	3050B	
MB 570-166170/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-166170/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-166170/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 166171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-10	B14-5	Total/NA	Solid	3050B	
570-65062-13	B15-0.5	Total/NA	Solid	3050B	
570-65062-14	B15-5	Total/NA	Solid	3050B	
570-65062-17	B20-0.5	Total/NA	Solid	3050B	
570-65062-18	B20-5	Total/NA	Solid	3050B	
570-65062-21	B18-0.5	Total/NA	Solid	3050B	
570-65062-22	B18-5	Total/NA	Solid	3050B	
570-65062-25	B23-0.5	Total/NA	Solid	3050B	
570-65062-26	B23-5	Total/NA	Solid	3050B	
570-65062-29	B22-0.5	Total/NA	Solid	3050B	
570-65062-30	B22-5	Total/NA	Solid	3050B	
570-65062-33	B24-0.5	Total/NA	Solid	3050B	
570-65062-34	B24-5	Total/NA	Solid	3050B	
570-65062-37	B17-0.5	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 166171 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-38	B17-5	Total/NA	Solid	3050B	
570-65062-41	B16-0.5	Total/NA	Solid	3050B	
570-65062-42	B16-5	Total/NA	Solid	3050B	
570-65062-45	B19-0.5	Total/NA	Solid	3050B	
570-65062-46	B19-5	Total/NA	Solid	3050B	
MB 570-166171/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-166171/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-166171/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-65062-10 MS	B14-5	Total/NA	Solid	3050B	
570-65062-10 MSD	B14-5	Total/NA	Solid	3050B	

Prep Batch: 166407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	7471A	
570-65062-2	B12-5	Total/NA	Solid	7471A	
570-65062-6	B13-5	Total/NA	Solid	7471A	
570-65062-9	B14-0.5	Total/NA	Solid	7471A	
570-65062-10	B14-5	Total/NA	Solid	7471A	
570-65062-13	B15-0.5	Total/NA	Solid	7471A	
570-65062-14	B15-5	Total/NA	Solid	7471A	
570-65062-17	B20-0.5	Total/NA	Solid	7471A	
570-65062-18	B20-5	Total/NA	Solid	7471A	
570-65062-21	B18-0.5	Total/NA	Solid	7471A	
570-65062-22	B18-5	Total/NA	Solid	7471A	
570-65062-25	B23-0.5	Total/NA	Solid	7471A	
570-65062-26	B23-5	Total/NA	Solid	7471A	
570-65062-29	B22-0.5	Total/NA	Solid	7471A	
570-65062-30	B22-5	Total/NA	Solid	7471A	
570-65062-33	B24-0.5	Total/NA	Solid	7471A	
570-65062-34	B24-5	Total/NA	Solid	7471A	
570-65062-37	B17-0.5	Total/NA	Solid	7471A	
570-65062-38	B17-5	Total/NA	Solid	7471A	
570-65062-41	B16-0.5	Total/NA	Solid	7471A	
MB 570-166407/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-166407/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-166407/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-65062-1 MS	B12-0.5	Total/NA	Solid	7471A	
570-65062-1 MSD	B12-0.5	Total/NA	Solid	7471A	

Prep Batch: 166409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-42	B16-5	Total/NA	Solid	7471A	
570-65062-45	B19-0.5	Total/NA	Solid	7471A	
570-65062-46	B19-5	Total/NA	Solid	7471A	
MB 570-166409/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-166409/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-166409/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-65062-42 MS	B16-5	Total/NA	Solid	7471A	
570-65062-42 MSD	B16-5	Total/NA	Solid	7471A	

Metals

Analysis Batch: 166516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-166170/1-A	Method Blank	Total/NA	Solid	6010B	166170
LCS 570-166170/2-A	Lab Control Sample	Total/NA	Solid	6010B	166170
LCSD 570-166170/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	166170

Analysis Batch: 166568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	7471A	166407
570-65062-2	B12-5	Total/NA	Solid	7471A	166407
570-65062-5	B13-0.5	Total/NA	Solid	7471A	166590
570-65062-6	B13-5	Total/NA	Solid	7471A	166407
570-65062-9	B14-0.5	Total/NA	Solid	7471A	166407
570-65062-10	B14-5	Total/NA	Solid	7471A	166407
570-65062-13	B15-0.5	Total/NA	Solid	7471A	166407
570-65062-14	B15-5	Total/NA	Solid	7471A	166407
570-65062-17	B20-0.5	Total/NA	Solid	7471A	166407
570-65062-18	B20-5	Total/NA	Solid	7471A	166407
570-65062-21	B18-0.5	Total/NA	Solid	7471A	166407
570-65062-22	B18-5	Total/NA	Solid	7471A	166407
570-65062-25	B23-0.5	Total/NA	Solid	7471A	166407
570-65062-26	B23-5	Total/NA	Solid	7471A	166407
570-65062-29	B22-0.5	Total/NA	Solid	7471A	166407
570-65062-30	B22-5	Total/NA	Solid	7471A	166407
570-65062-33	B24-0.5	Total/NA	Solid	7471A	166407
570-65062-34	B24-5	Total/NA	Solid	7471A	166407
570-65062-37	B17-0.5	Total/NA	Solid	7471A	166407
570-65062-38	B17-5	Total/NA	Solid	7471A	166407
570-65062-41	B16-0.5	Total/NA	Solid	7471A	166407
570-65062-42	B16-5	Total/NA	Solid	7471A	166409
570-65062-45	B19-0.5	Total/NA	Solid	7471A	166409
570-65062-46	B19-5	Total/NA	Solid	7471A	166409
MB 570-166407/1-A	Method Blank	Total/NA	Solid	7471A	166407
MB 570-166409/1-A	Method Blank	Total/NA	Solid	7471A	166409
MB 570-166590/1-A	Method Blank	Total/NA	Solid	7471A	166590
LCS 570-166407/2-A	Lab Control Sample	Total/NA	Solid	7471A	166407
LCS 570-166409/2-A	Lab Control Sample	Total/NA	Solid	7471A	166409
LCS 570-166590/2-A	Lab Control Sample	Total/NA	Solid	7471A	166590
LCSD 570-166407/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	166407
LCSD 570-166409/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	166409
LCSD 570-166590/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	166590
570-65062-1 MS	B12-0.5	Total/NA	Solid	7471A	166407
570-65062-1 MSD	B12-0.5	Total/NA	Solid	7471A	166407
570-65062-42 MS	B16-5	Total/NA	Solid	7471A	166409
570-65062-42 MSD	B16-5	Total/NA	Solid	7471A	166409

Prep Batch: 166590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-5	B13-0.5	Total/NA	Solid	7471A	
MB 570-166590/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-166590/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-166590/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Metals

Analysis Batch: 166665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-1	B12-0.5	Total/NA	Solid	6010B	166170
570-65062-2	B12-5	Total/NA	Solid	6010B	166170
570-65062-5	B13-0.5	Total/NA	Solid	6010B	166170
570-65062-6	B13-5	Total/NA	Solid	6010B	166170
570-65062-9	B14-0.5	Total/NA	Solid	6010B	166170

Analysis Batch: 166819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65062-10	B14-5	Total/NA	Solid	6010B	166171
570-65062-13	B15-0.5	Total/NA	Solid	6010B	166171
570-65062-14	B15-5	Total/NA	Solid	6010B	166171
570-65062-17	B20-0.5	Total/NA	Solid	6010B	166171
570-65062-18	B20-5	Total/NA	Solid	6010B	166171
570-65062-21	B18-0.5	Total/NA	Solid	6010B	166171
570-65062-22	B18-5	Total/NA	Solid	6010B	166171
570-65062-25	B23-0.5	Total/NA	Solid	6010B	166171
570-65062-26	B23-5	Total/NA	Solid	6010B	166171
570-65062-29	B22-0.5	Total/NA	Solid	6010B	166171
570-65062-30	B22-5	Total/NA	Solid	6010B	166171
570-65062-33	B24-0.5	Total/NA	Solid	6010B	166171
570-65062-34	B24-5	Total/NA	Solid	6010B	166171
570-65062-37	B17-0.5	Total/NA	Solid	6010B	166171
570-65062-38	B17-5	Total/NA	Solid	6010B	166171
570-65062-41	B16-0.5	Total/NA	Solid	6010B	166171
570-65062-42	B16-5	Total/NA	Solid	6010B	166171
570-65062-45	B19-0.5	Total/NA	Solid	6010B	166171
570-65062-46	B19-5	Total/NA	Solid	6010B	166171
MB 570-166171/1-A	Method Blank	Total/NA	Solid	6010B	166171
LCS 570-166171/2-A	Lab Control Sample	Total/NA	Solid	6010B	166171
LCSD 570-166171/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	166171
570-65062-10 MS	B14-5	Total/NA	Solid	6010B	166171
570-65062-10 MSD	B14-5	Total/NA	Solid	6010B	166171

Client Sample ID: B12-0.5

Lab Sample ID: 570-65062-1

Date Collected: 07/21/21 08:45

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.14 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 13:50	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.94 g	100 mL	166170	07/23/21 13:47	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166665	07/26/21 17:47	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.63 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 13:51	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B12-5

Lab Sample ID: 570-65062-2

Date Collected: 07/21/21 09:48

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.82 g	5 mL	166055	07/23/21 11:17	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 12:24	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			9.97 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 01:59	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.99 g	100 mL	166170	07/23/21 13:47	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166665	07/26/21 18:02	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:00	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B13-0.5

Lab Sample ID: 570-65062-5

Date Collected: 07/21/21 08:48

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.36 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 15:24	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.92 g	100 mL	166170	07/23/21 13:47	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166665	07/26/21 18:04	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166590	07/26/21 16:35	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 17:59	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B13-5

Lab Sample ID: 570-65062-6

Date Collected: 07/21/21 10:07

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.95 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 14:46	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.61 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 02:21	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.90 g	100 mL	166170	07/23/21 13:47	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166665	07/26/21 18:06	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.57 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:02	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B14-0.5

Lab Sample ID: 570-65062-9

Date Collected: 07/21/21 08:54

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.13 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 15:38	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.99 g	100 mL	166170	07/23/21 13:47	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166665	07/26/21 18:09	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.58 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:04	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B14-5

Lab Sample ID: 570-65062-10

Date Collected: 07/21/21 10:41

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 15:14	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.15 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		2			166559	07/27/21 02:42	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.92 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:15	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:06	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B15-0.5

Date Collected: 07/21/21 09:00
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.26 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 19:55	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.02 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:29	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:08	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B15-5

Date Collected: 07/21/21 11:02
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.86 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 15:42	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.13 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 03:05	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.10 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:38	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:10	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B20-0.5

Date Collected: 07/21/21 11:40
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.22 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 16:07	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.08 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:40	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:12	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B20-5

Lab Sample ID: 570-65062-18

Date Collected: 07/21/21 11:43

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.84 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 16:11	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.05 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 03:27	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.03 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:43	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:13	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B18-0.5

Lab Sample ID: 570-65062-21

Date Collected: 07/21/21 12:23

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.28 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 16:21	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.04 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:45	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:15	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B18-5

Lab Sample ID: 570-65062-22

Date Collected: 07/21/21 12:25

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.13 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 16:39	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			9.98 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 03:49	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.07 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:48	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.63 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:17	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B23-0.5

Lab Sample ID: 570-65062-25

Date Collected: 07/21/21 09:15

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.17 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 16:35	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.09 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:50	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:23	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B23-5

Lab Sample ID: 570-65062-26

Date Collected: 07/21/21 12:48

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 17:08	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.39 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 04:11	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.08 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:53	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:25	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B22-0.5

Lab Sample ID: 570-65062-29

Date Collected: 07/21/21 13:02

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.32 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 16:50	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.01 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:56	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.59 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:27	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B22-5

Lab Sample ID: 570-65062-30

Date Collected: 07/21/21 13:04

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.84 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 17:37	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.11 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 04:33	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.00 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 17:58	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.57 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:28	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B24-0.5

Lab Sample ID: 570-65062-33

Date Collected: 07/21/21 09:18

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.24 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 18:01	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.94 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:09	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.58 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:30	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B24-5

Lab Sample ID: 570-65062-34

Date Collected: 07/21/21 13:31

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.94 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 18:05	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.04 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 04:56	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.97 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:11	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:32	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B17-0.5

Lab Sample ID: 570-65062-37

Date Collected: 07/21/21 13:47

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.15 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 18:15	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.93 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:14	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:34	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B17-5

Lab Sample ID: 570-65062-38

Date Collected: 07/21/21 13:49

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.17 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 18:34	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.71 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 05:19	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.92 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:17	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.59 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:36	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B16-0.5

Lab Sample ID: 570-65062-41

Date Collected: 07/21/21 14:02

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.26 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 18:29	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.94 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:19	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166407	07/26/21 06:07	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 14:38	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B16-5

Lab Sample ID: 570-65062-42

Date Collected: 07/21/21 14:04

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.09 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 19:02	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			10.45 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 06:25	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			1.99 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:22	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166409	07/26/21 07:03	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 13:22	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B19-0.5

Lab Sample ID: 570-65062-45

Date Collected: 07/21/21 09:05

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.20 g	10 mL	165909	07/22/21 15:23	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166067	07/23/21 18:43	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.05 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:24	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.58 g	100 mL	166409	07/26/21 07:03	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 13:27	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B19-5

Lab Sample ID: 570-65062-46

Date Collected: 07/21/21 14:34

Matrix: Solid

Date Received: 07/21/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	166055	07/23/21 12:34	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166034	07/23/21 19:30	U4JL	ECL 2
	Instrument ID: GCMSCC									
Total/NA	Prep	3550C			9.57 g	10 mL	166589	07/26/21 13:46	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166559	07/27/21 06:48	UJ3K	ECL 1
	Instrument ID: GC47									
Total/NA	Prep	3050B			2.09 g	100 mL	166171	07/23/21 13:55	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166819	07/26/21 18:27	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.57 g	100 mL	166409	07/26/21 07:03	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166568	07/26/21 13:29	VWJ7	ECL 1
	Instrument ID: HG8									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Client Sample ID: B21-0.5

Date Collected: 07/21/21 09:08
Date Received: 07/21/21 18:30

Lab Sample ID: 570-65062-49

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.05 g	10 mL	165863	07/23/21 07:53	F7UI	ECL 1
Total/NA	Analysis	8082		1			166456	07/26/21 15:41	UHHN	ECL 1
	Instrument ID: GC31									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Citadel Environmental Services Inc
Job ID: 570-65062-1
Project/Site: East 118th Street

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

Method Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 1
8081A	Organochlorine Pesticides (GC)	SW846	ECL 1
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ECL 1
6010B	Metals (ICP)	SW846	ECL 1
7471A	Mercury (CVAA)	SW846	ECL 1
3050B	Preparation, Metals	SW846	ECL 1
3546	Microwave Extraction	SW846	ECL 1
3550C	Ultrasonic Extraction	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2
7471A	Preparation, Mercury	SW846	ECL 1

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65062-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-65062-1	B12-0.5	Solid	07/21/21 08:45	07/21/21 18:30
570-65062-2	B12-5	Solid	07/21/21 09:48	07/21/21 18:30
570-65062-5	B13-0.5	Solid	07/21/21 08:48	07/21/21 18:30
570-65062-6	B13-5	Solid	07/21/21 10:07	07/21/21 18:30
570-65062-9	B14-0.5	Solid	07/21/21 08:54	07/21/21 18:30
570-65062-10	B14-5	Solid	07/21/21 10:41	07/21/21 18:30
570-65062-13	B15-0.5	Solid	07/21/21 09:00	07/21/21 18:30
570-65062-14	B15-5	Solid	07/21/21 11:02	07/21/21 18:30
570-65062-17	B20-0.5	Solid	07/21/21 11:40	07/21/21 18:30
570-65062-18	B20-5	Solid	07/21/21 11:43	07/21/21 18:30
570-65062-21	B18-0.5	Solid	07/21/21 12:23	07/21/21 18:30
570-65062-22	B18-5	Solid	07/21/21 12:25	07/21/21 18:30
570-65062-25	B23-0.5	Solid	07/21/21 09:15	07/21/21 18:30
570-65062-26	B23-5	Solid	07/21/21 12:48	07/21/21 18:30
570-65062-29	B22-0.5	Solid	07/21/21 13:02	07/21/21 18:30
570-65062-30	B22-5	Solid	07/21/21 13:04	07/21/21 18:30
570-65062-33	B24-0.5	Solid	07/21/21 09:18	07/21/21 18:30
570-65062-34	B24-5	Solid	07/21/21 13:31	07/21/21 18:30
570-65062-37	B17-0.5	Solid	07/21/21 13:47	07/21/21 18:30
570-65062-38	B17-5	Solid	07/21/21 13:49	07/21/21 18:30
570-65062-41	B16-0.5	Solid	07/21/21 14:02	07/21/21 18:30
570-65062-42	B16-5	Solid	07/21/21 14:04	07/21/21 18:30
570-65062-45	B19-0.5	Solid	07/21/21 09:05	07/21/21 18:30
570-65062-46	B19-5	Solid	07/21/21 14:34	07/21/21 18:30
570-65062-49	B21-0.5	Solid	07/21/21 09:08	07/21/21 18:30

eurofins | Calscience

7440 Lincoln Way Garden Grove CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-65062 Chain of Custody

CHAIN OF CUSTODY RECORD

US062.

7-21-21

1 OF 5

LABORATORY CLIENT: Citadel EHS
ADDRESS: 1725 Victory Blvd.
CITY: Glendale STATE: CA ZIP: 91201
TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CL: East 118th Street
PROJECT CONTACT: Scott Grasse
P O NO: 0350.1007.0
SAMPLER(S). (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF | GLOBAL ID | LOG CODE

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH __Full Range	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold
1	B12-0.5	7-21-21	0845	Soil	4oz Jar 1x Sleeve													X			X		
2	B12-5		0948		1x Sleeve							X		X							X		
3	B12-10		0950																				X
4	B12-15		0952																				X
5	B13-0.5		0848		4oz Jar													X			X		
6	B13-5		1007		1x Sleeve							X		X							X		
7	B13-10		1012																				X
8	B13-15		1025																				X
9	B14-0.5		0854		4oz Jar													X			X		
10	B14-5		1041		Sleeve							X		X							X		

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) GC	Date 7/21/21	Time 1556
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Mandel Eq	Date 7/21/21	Time 1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

7.4/7.0 SCC.

06/02/14 Revision

7/28/2021

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WO # / LAB USE ONLY

CHAIN OF CUSTODY RECORD

DATE: 7-21-21
PAGE: 2 OF 3

LABORATORY CLIENT: Citadel EHS
ADDRESS: 1725 Victory Blvd.
CITY: Glendale STATE: CA ZIP: 91201
TEL.: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street
PO NO: 0350.1007.0
PROJECT CONTACT: Scott Grasse
SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF | GLOBAL ID: | LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) GRO	TPH(d) DRO	TPH C6-C36 C6-C44	TPH Full Range	BTEX / MTBE 8260	VOCs (8260)	Oxygenates (8260)	Prep (5035) En Core Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 8270 SIM	T22 Metals 6010/747X 6020/747X	Cr(VI) 7196 7199 218.6	Hold				
11	B14-10	7-21-21	1043	Soil	1																		X				
12	B14-15		1047																				X				
13	B15-0.5		~~0900~~ #02															X	X		X						
14	B15-5		1102									X		X							X						
15	B15-10		1107																				X				
16	B15-15		1112																				X				
17	B20-0.5		1140															X			X						
18	B20-5		1143									X		X							X						
19	B20-10		1145																				X				
20	B20-15		1150																				X				

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) EC	Date 7/21/21	Time 1956
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Citadel	Date 7/21/21	Time 1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

06/02/14 Revision

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US002

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 7-21-21

PAGE: 3 OF 5

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

P O NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ☐ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6	Hold				
21	B18-0.5	7-21-21	1223	Soil	1													X	X		X					
22	B18-5	"	1225	"	"							X		X							X					
23	B18-10	"	1230	"	"																		X			
24	B18-15	"	1235	"	"																		X			
25	B23-0.5	"	0915	"	"													X			X					
26	B23-5	"	1248	"	"							X		X							X					
27	B23-10	"	1252	"	"																		X			
28	B23-15	"	1253	"	"																		X			
29	B22-0.5	"	1302	"	"													X			X					
30	B22-5	"	1304	"	"							X		X							X					

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) GC	Date 7/21/21	Time 1556
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Calscience	Date 7/21/21	Time 1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

06/02/14 Revision

7/28/2021

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105062

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 7-21-21

PAGE: 4 OF 5

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD').
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ☐ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold				
31	B22-10	7-21-21	1307	Soil	1																		X			
32	B22-15		1310																				X			
33	B24-0.5		0918															X			X					
34	B24-5		1331									X		X							X					
35	B24-10		1333																				X			
36	B24-15		1336																				X			
37	B17-0.5		1347															X			X					
38	B17-5		1349									X		X							X					
39	B17-10		1351																				X			
40	B17-15		1352																				X			

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date: 7/21/21	Time: 1556
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 7/21/21	Time: 1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

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CHAIN OF CUSTODY RECORD

05062

WO # / LAB USE ONLY

DATE: 7-21-21

PAGE: 5 OF 5

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

P O NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH __Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6	Hold			
41	B16-0.5	7-21-21	1402	Soil	1													X			X					
42	B16-5	"	1404	"	"							X		X							X					
43	B16-10	"	1407	"	"																		X			
44	B16-15	"	1410	"	"																		X			
45	B19-0.5	"	0905	"	"													X			X					
46	B19-5	"	1434	"	"							X		X							X					
47	B19-10	"	1437	"	"																		X			
48	B19-15	"	1439	"	"																		X			
49	B21-0.5	"	0908	"	"														X							

Relinquished by (Signature): Tim Lambert	Received by (Signature/Affiliation): Rudy / GC	Date: 7/21/21	Time: 1556
Relinquished by (Signature):	Received by (Signature/Affiliation): Mankel Tai	Date: 7/21/21	Time: 1930
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:

06/02/14 Revision

Login Sample Receipt Checklist

Client: Citadel Environmental Services Inc

Job Number: 570-65062-1

Login Number: 65062
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience LLC

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-65130-1
Client Project/Site: East 118th Street

For:
Citadel Environmental Services Inc
1725 Victory Blvd
Glendale, California 91201

Attn: Scott Grasse

Authorized for release by:
7/30/2021 12:44:33 PM

Erick Ovalle, Project Manager
(714)895-5494
erick.ovalle@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B3-0.5 — Lab Sample ID: 570-65130-1

No Detections.

Client Sample ID: B6-0.5 — Lab Sample ID: 570-65130-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.88	J	5.0	0.53	ug/Kg	1		8081A	Total/NA
4,4'-DDT	2.0	J	5.0	0.94	ug/Kg	1		8081A	Total/NA
Barium	15.6		0.476	0.211	mg/Kg	1		6010B	Total/NA
Cadmium	0.251	J	0.476	0.192	mg/Kg	1		6010B	Total/NA
Chromium	4.52		0.952	0.167	mg/Kg	1		6010B	Total/NA
Cobalt	3.03		0.952	0.216	mg/Kg	1		6010B	Total/NA
Copper	6.11		0.952	0.483	mg/Kg	1		6010B	Total/NA
Lead	1.38	J	4.76	0.921	mg/Kg	1		6010B	Total/NA
Nickel	3.39		0.476	0.409	mg/Kg	1		6010B	Total/NA
Silver	0.534	J	0.952	0.214	mg/Kg	1		6010B	Total/NA
Vanadium	7.86		0.952	0.163	mg/Kg	1		6010B	Total/NA
Zinc	13.0		9.52	4.87	mg/Kg	1		6010B	Total/NA
Mercury	0.0232	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B6-5 — Lab Sample ID: 570-65130-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13.4		0.503	0.223	mg/Kg	1		6010B	Total/NA
Cadmium	0.205	J	0.503	0.203	mg/Kg	1		6010B	Total/NA
Chromium	3.74		1.01	0.177	mg/Kg	1		6010B	Total/NA
Cobalt	2.58		1.01	0.228	mg/Kg	1		6010B	Total/NA
Copper	5.31		1.01	0.510	mg/Kg	1		6010B	Total/NA
Lead	1.14	J	5.03	0.972	mg/Kg	1		6010B	Total/NA
Nickel	2.68		0.503	0.432	mg/Kg	1		6010B	Total/NA
Silver	0.470	J	1.01	0.226	mg/Kg	1		6010B	Total/NA
Vanadium	6.63		1.01	0.173	mg/Kg	1		6010B	Total/NA
Zinc	10.7		10.1	5.14	mg/Kg	1		6010B	Total/NA
Mercury	0.0178	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B5-0.5 — Lab Sample ID: 570-65130-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.70	J	5.0	0.54	ug/Kg	1		8081A	Total/NA
4,4'-DDT	1.4	J	5.0	0.94	ug/Kg	1		8081A	Total/NA
Barium	15.8		0.513	0.227	mg/Kg	1		6010B	Total/NA
Cadmium	0.222	J	0.513	0.207	mg/Kg	1		6010B	Total/NA
Chromium	4.79		1.03	0.180	mg/Kg	1		6010B	Total/NA
Cobalt	2.85		1.03	0.233	mg/Kg	1		6010B	Total/NA
Copper	5.57		1.03	0.520	mg/Kg	1		6010B	Total/NA
Lead	1.16	J	5.13	0.992	mg/Kg	1		6010B	Total/NA
Nickel	3.20		0.513	0.440	mg/Kg	1		6010B	Total/NA
Silver	0.264	J	1.03	0.231	mg/Kg	1		6010B	Total/NA
Vanadium	7.75		1.03	0.176	mg/Kg	1		6010B	Total/NA
Zinc	11.1		10.3	5.25	mg/Kg	1		6010B	Total/NA
Mercury	0.0214	J	0.0877	0.0142	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B5-5 — Lab Sample ID: 570-65130-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C21-C22	4.0	J	4.8	3.7	mg/Kg	1		8015B	Total/NA
C25-C28	5.8		4.8	3.7	mg/Kg	1		8015B	Total/NA
C29-C32	8.1		4.8	3.7	mg/Kg	1		8015B	Total/NA
C33-C36	7.8		4.8	3.7	mg/Kg	1		8015B	Total/NA
C37-C40	4.8		4.8	3.7	mg/Kg	1		8015B	Total/NA
C6-C44	32		4.8	3.7	mg/Kg	1		8015B	Total/NA
Barium	12.2		0.508	0.225	mg/Kg	1		6010B	Total/NA
Chromium	3.59		1.02	0.178	mg/Kg	1		6010B	Total/NA
Cobalt	2.36		1.02	0.231	mg/Kg	1		6010B	Total/NA
Copper	5.08		1.02	0.515	mg/Kg	1		6010B	Total/NA
Lead	1.07	J	5.08	0.982	mg/Kg	1		6010B	Total/NA
Nickel	2.61		0.508	0.436	mg/Kg	1		6010B	Total/NA
Vanadium	6.15		1.02	0.174	mg/Kg	1		6010B	Total/NA
Zinc	10.4		10.2	5.19	mg/Kg	1		6010B	Total/NA

Client Sample ID: B1-0.5 — Lab Sample ID: 570-65130-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	15.4		0.518	0.230	mg/Kg	1		6010B	Total/NA
Cadmium	0.211	J	0.518	0.209	mg/Kg	1		6010B	Total/NA
Chromium	4.03		1.04	0.182	mg/Kg	1		6010B	Total/NA
Cobalt	2.71		1.04	0.236	mg/Kg	1		6010B	Total/NA
Copper	6.19		1.04	0.525	mg/Kg	1		6010B	Total/NA
Lead	1.30	J	5.18	1.00	mg/Kg	1		6010B	Total/NA
Nickel	2.97		0.518	0.445	mg/Kg	1		6010B	Total/NA
Silver	0.359	J	1.04	0.233	mg/Kg	1		6010B	Total/NA
Vanadium	6.87		1.04	0.178	mg/Kg	1		6010B	Total/NA
Zinc	11.5		10.4	5.30	mg/Kg	1		6010B	Total/NA
Mercury	0.0292	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B1-5 — Lab Sample ID: 570-65130-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	27		20	9.8	ug/Kg	1		8260B	Total/NA
Ethylbenzene	0.34	J	1.0	0.21	ug/Kg	1		8260B	Total/NA
m,p-Xylene	1.9	J	2.0	0.47	ug/Kg	1		8260B	Total/NA
o-Xylene	0.68	J	1.0	0.60	ug/Kg	1		8260B	Total/NA
C21-C22	4.5	J	5.1	3.9	mg/Kg	1		8015B	Total/NA
C25-C28	7.1		5.1	3.9	mg/Kg	1		8015B	Total/NA
C29-C32	10		5.1	3.9	mg/Kg	1		8015B	Total/NA
C33-C36	11		5.1	3.9	mg/Kg	1		8015B	Total/NA
C37-C40	6.8		5.1	3.9	mg/Kg	1		8015B	Total/NA
C6-C44	43		5.1	3.9	mg/Kg	1		8015B	Total/NA
Barium	9.33		0.524	0.232	mg/Kg	1		6010B	Total/NA
Chromium	2.74		1.05	0.184	mg/Kg	1		6010B	Total/NA
Cobalt	1.80		1.05	0.238	mg/Kg	1		6010B	Total/NA
Copper	3.40		1.05	0.531	mg/Kg	1		6010B	Total/NA
Nickel	1.89		0.524	0.450	mg/Kg	1		6010B	Total/NA
Vanadium	4.45		1.05	0.180	mg/Kg	1		6010B	Total/NA
Zinc	7.70	J	10.5	5.36	mg/Kg	1		6010B	Total/NA
Mercury	0.0254	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B11-0.5 — Lab Sample ID: 570-65130-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.78	J	5.0	0.54	ug/Kg	1		8081A	Total/NA
Barium	17.6		0.503	0.223	mg/Kg	1		6010B	Total/NA
Cadmium	0.249	J	0.503	0.203	mg/Kg	1		6010B	Total/NA
Chromium	8.78		1.01	0.177	mg/Kg	1		6010B	Total/NA
Cobalt	3.33		1.01	0.228	mg/Kg	1		6010B	Total/NA
Copper	5.43		1.01	0.510	mg/Kg	1		6010B	Total/NA
Lead	1.08	J	5.03	0.972	mg/Kg	1		6010B	Total/NA
Nickel	4.02		0.503	0.432	mg/Kg	1		6010B	Total/NA
Silver	0.293	J	1.01	0.226	mg/Kg	1		6010B	Total/NA
Vanadium	10.7		1.01	0.173	mg/Kg	1		6010B	Total/NA
Zinc	11.0		10.1	5.14	mg/Kg	1		6010B	Total/NA
Mercury	0.0222	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B11-5 — Lab Sample ID: 570-65130-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C24	4.3	J	5.3	4.0	mg/Kg	1		8015B	Total/NA
C25-C28	19		5.3	4.0	mg/Kg	1		8015B	Total/NA
C29-C32	27		5.3	4.0	mg/Kg	1		8015B	Total/NA
C33-C36	26		5.3	4.0	mg/Kg	1		8015B	Total/NA
C37-C40	23		5.3	4.0	mg/Kg	1		8015B	Total/NA
C41-C44	10		5.3	4.0	mg/Kg	1		8015B	Total/NA
C6-C44	110		5.3	4.0	mg/Kg	1		8015B	Total/NA
Barium	17.0		0.488	0.216	mg/Kg	1		6010B	Total/NA
Cadmium	0.236	J	0.488	0.197	mg/Kg	1		6010B	Total/NA
Chromium	4.38		0.976	0.171	mg/Kg	1		6010B	Total/NA
Cobalt	2.96		0.976	0.222	mg/Kg	1		6010B	Total/NA
Copper	6.31		0.976	0.495	mg/Kg	1		6010B	Total/NA
Lead	1.23	J	4.88	0.943	mg/Kg	1		6010B	Total/NA
Nickel	3.31		0.488	0.419	mg/Kg	1		6010B	Total/NA
Silver	0.834	J	0.976	0.220	mg/Kg	1		6010B	Total/NA
Vanadium	7.88		0.976	0.167	mg/Kg	1		6010B	Total/NA
Zinc	12.4		9.76	4.99	mg/Kg	1		6010B	Total/NA

Client Sample ID: B25-0.5 — Lab Sample ID: 570-65130-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	5.4		5.0	0.54	ug/Kg	1		8081A	Total/NA
4,4'-DDT	2.8	J p	5.0	0.94	ug/Kg	1		8081A	Total/NA
Barium	16.4		0.483	0.214	mg/Kg	1		6010B	Total/NA
Cadmium	0.239	J	0.483	0.195	mg/Kg	1		6010B	Total/NA
Chromium	4.35		0.966	0.170	mg/Kg	1		6010B	Total/NA
Cobalt	2.84		0.966	0.220	mg/Kg	1		6010B	Total/NA
Copper	6.47		0.966	0.490	mg/Kg	1		6010B	Total/NA
Lead	1.49	J	4.83	0.934	mg/Kg	1		6010B	Total/NA
Nickel	3.14		0.483	0.415	mg/Kg	1		6010B	Total/NA
Silver	0.423	J	0.966	0.218	mg/Kg	1		6010B	Total/NA
Vanadium	7.44		0.966	0.166	mg/Kg	1		6010B	Total/NA
Zinc	12.7		9.66	4.94	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B25-5 — Lab Sample ID: 570-65130-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C6-C44	9.2		4.7	3.6	mg/Kg	1		8015B	Total/NA
Barium	18.1		0.515	0.229	mg/Kg	1		6010B	Total/NA
Cadmium	0.262	J	0.515	0.208	mg/Kg	1		6010B	Total/NA
Chromium	4.90		1.03	0.181	mg/Kg	1		6010B	Total/NA
Cobalt	3.21		1.03	0.234	mg/Kg	1		6010B	Total/NA
Copper	6.76		1.03	0.523	mg/Kg	1		6010B	Total/NA
Lead	1.39	J	5.15	0.997	mg/Kg	1		6010B	Total/NA
Nickel	3.47		0.515	0.443	mg/Kg	1		6010B	Total/NA
Silver	0.327	J	1.03	0.232	mg/Kg	1		6010B	Total/NA
Vanadium	8.50		1.03	0.177	mg/Kg	1		6010B	Total/NA
Zinc	13.8		10.3	5.27	mg/Kg	1		6010B	Total/NA

Client Sample ID: B26-0.5 — Lab Sample ID: 570-65130-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	1.8	J	5.0	0.54	ug/Kg	1		8081A	Total/NA
4,4'-DDT	1.3	J p	5.0	0.95	ug/Kg	1		8081A	Total/NA
Chlordane	3.4	J p	25	2.4	ug/Kg	1		8081A	Total/NA
Barium	7.37		0.508	0.225	mg/Kg	1		6010B	Total/NA
Beryllium	0.296		0.254	0.174	mg/Kg	1		6010B	Total/NA
Cadmium	0.235	J	0.508	0.205	mg/Kg	1		6010B	Total/NA
Chromium	1.35		1.02	0.178	mg/Kg	1		6010B	Total/NA
Cobalt	1.38		1.02	0.231	mg/Kg	1		6010B	Total/NA
Copper	2.34		1.02	0.515	mg/Kg	1		6010B	Total/NA
Lead	1.23	J	5.08	0.982	mg/Kg	1		6010B	Total/NA
Nickel	1.57		0.508	0.436	mg/Kg	1		6010B	Total/NA
Vanadium	5.79		1.02	0.174	mg/Kg	1		6010B	Total/NA
Zinc	8.03	J	10.2	5.19	mg/Kg	1		6010B	Total/NA
Mercury	0.0174	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: B26-5 — Lab Sample ID: 570-65130-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	11.0		0.493	0.218	mg/Kg	1		6010B	Total/NA
Beryllium	0.384		0.246	0.168	mg/Kg	1		6010B	Total/NA
Cadmium	0.376	J	0.493	0.199	mg/Kg	1		6010B	Total/NA
Chromium	1.76		0.985	0.173	mg/Kg	1		6010B	Total/NA
Cobalt	2.04		0.985	0.224	mg/Kg	1		6010B	Total/NA
Copper	3.94		0.985	0.500	mg/Kg	1		6010B	Total/NA
Lead	1.90	J	4.93	0.953	mg/Kg	1		6010B	Total/NA
Nickel	2.29		0.493	0.423	mg/Kg	1		6010B	Total/NA
Vanadium	9.13		0.985	0.169	mg/Kg	1		6010B	Total/NA
Zinc	11.0		9.85	5.04	mg/Kg	1		6010B	Total/NA
Mercury	0.0178	J	0.0794	0.0129	mg/Kg	1		7471A	Total/NA

Client Sample ID: B27-0.5 — Lab Sample ID: 570-65130-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13.0		0.498	0.221	mg/Kg	1		6010B	Total/NA
Beryllium	0.389		0.249	0.170	mg/Kg	1		6010B	Total/NA
Cadmium	0.446	J	0.498	0.201	mg/Kg	1		6010B	Total/NA
Chromium	2.48		0.995	0.175	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B27-0.5 (Continued)

Lab Sample ID: 570-65130-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	2.25		0.995	0.226	mg/Kg	1		6010B	Total/NA
Copper	4.33		0.995	0.505	mg/Kg	1		6010B	Total/NA
Lead	1.82	J	4.98	0.962	mg/Kg	1		6010B	Total/NA
Nickel	2.67		0.498	0.427	mg/Kg	1		6010B	Total/NA
Vanadium	10.4		0.995	0.171	mg/Kg	1		6010B	Total/NA
Zinc	12.2		9.95	5.09	mg/Kg	1		6010B	Total/NA
Mercury	0.0312	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B27-5

Lab Sample ID: 570-65130-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C6-C44	12		5.0	3.9	mg/Kg	1		8015B	Total/NA
Barium	10.3		0.500	0.222	mg/Kg	1		6010B	Total/NA
Beryllium	0.389		0.250	0.171	mg/Kg	1		6010B	Total/NA
Cadmium	0.372	J	0.500	0.202	mg/Kg	1		6010B	Total/NA
Chromium	1.92		1.00	0.176	mg/Kg	1		6010B	Total/NA
Cobalt	1.77		1.00	0.227	mg/Kg	1		6010B	Total/NA
Copper	3.33		1.00	0.507	mg/Kg	1		6010B	Total/NA
Lead	1.16	J	5.00	0.967	mg/Kg	1		6010B	Total/NA
Nickel	2.16		0.500	0.429	mg/Kg	1		6010B	Total/NA
Vanadium	8.96		1.00	0.172	mg/Kg	1		6010B	Total/NA
Zinc	10.3		10.0	5.11	mg/Kg	1		6010B	Total/NA
Mercury	0.0459	J	0.0862	0.0140	mg/Kg	1		7471A	Total/NA

Client Sample ID: B4-0.5

Lab Sample ID: 570-65130-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	10.3		0.485	0.215	mg/Kg	1		6010B	Total/NA
Beryllium	0.394		0.243	0.166	mg/Kg	1		6010B	Total/NA
Cadmium	0.343	J	0.485	0.196	mg/Kg	1		6010B	Total/NA
Chromium	2.98		0.971	0.171	mg/Kg	1		6010B	Total/NA
Cobalt	1.94		0.971	0.221	mg/Kg	1		6010B	Total/NA
Copper	3.72		0.971	0.492	mg/Kg	1		6010B	Total/NA
Lead	1.31	J	4.85	0.939	mg/Kg	1		6010B	Total/NA
Nickel	2.28		0.485	0.417	mg/Kg	1		6010B	Total/NA
Vanadium	9.37		0.971	0.167	mg/Kg	1		6010B	Total/NA
Zinc	10.7		9.71	4.97	mg/Kg	1		6010B	Total/NA
Mercury	0.0186	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B4-5

Lab Sample ID: 570-65130-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	5.9		5.0	3.8	mg/Kg	1		8015B	Total/NA
C33-C36	8.2		5.0	3.8	mg/Kg	1		8015B	Total/NA
C37-C40	6.1		5.0	3.8	mg/Kg	1		8015B	Total/NA
C6-C44	30		5.0	3.8	mg/Kg	1		8015B	Total/NA
Barium	7.48		0.488	0.216	mg/Kg	1		6010B	Total/NA
Beryllium	0.259		0.244	0.167	mg/Kg	1		6010B	Total/NA
Cadmium	0.257	J	0.488	0.197	mg/Kg	1		6010B	Total/NA
Chromium	1.26		0.976	0.171	mg/Kg	1		6010B	Total/NA
Cobalt	1.43		0.976	0.222	mg/Kg	1		6010B	Total/NA
Copper	2.41		0.976	0.495	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B4-5 (Continued) — Lab Sample ID: 570-65130-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.14	J	4.88	0.943	mg/Kg	1		6010B	Total/NA
Nickel	1.64		0.488	0.419	mg/Kg	1		6010B	Total/NA
Vanadium	6.32		0.976	0.167	mg/Kg	1		6010B	Total/NA
Zinc	7.37	J	9.76	4.99	mg/Kg	1		6010B	Total/NA
Mercury	0.0355	J	0.0877	0.0142	mg/Kg	1		7471A	Total/NA

Client Sample ID: B2-0.5 — Lab Sample ID: 570-65130-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	7.80		0.498	0.221	mg/Kg	1		6010B	Total/NA
Beryllium	0.295		0.249	0.170	mg/Kg	1		6010B	Total/NA
Cadmium	0.246	J	0.498	0.201	mg/Kg	1		6010B	Total/NA
Chromium	1.40		0.995	0.175	mg/Kg	1		6010B	Total/NA
Cobalt	1.38		0.995	0.226	mg/Kg	1		6010B	Total/NA
Copper	2.61		0.995	0.505	mg/Kg	1		6010B	Total/NA
Lead	1.40	J	4.98	0.962	mg/Kg	1		6010B	Total/NA
Nickel	1.50		0.498	0.427	mg/Kg	1		6010B	Total/NA
Vanadium	6.40		0.995	0.171	mg/Kg	1		6010B	Total/NA
Zinc	8.70	J	9.95	5.09	mg/Kg	1		6010B	Total/NA
Mercury	0.0196	J	0.0847	0.0137	mg/Kg	1		7471A	Total/NA

Client Sample ID: B2-5 — Lab Sample ID: 570-65130-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C24 - DL	12		11	8.1	mg/Kg	2		8015B	Total/NA
C25-C28 - DL	62		11	8.1	mg/Kg	2		8015B	Total/NA
C29-C32 - DL	130		11	8.1	mg/Kg	2		8015B	Total/NA
C33-C36 - DL	140		11	8.1	mg/Kg	2		8015B	Total/NA
C37-C40 - DL	110		11	8.1	mg/Kg	2		8015B	Total/NA
C41-C44 - DL	46		11	8.1	mg/Kg	2		8015B	Total/NA
C6-C44 - DL	490		11	8.1	mg/Kg	2		8015B	Total/NA
Barium	7.31		0.500	0.222	mg/Kg	1		6010B	Total/NA
Beryllium	0.220	J	0.250	0.171	mg/Kg	1		6010B	Total/NA
Chromium	1.10		1.00	0.176	mg/Kg	1		6010B	Total/NA
Cobalt	1.15		1.00	0.227	mg/Kg	1		6010B	Total/NA
Copper	1.91		1.00	0.507	mg/Kg	1		6010B	Total/NA
Lead	1.35	J	5.00	0.967	mg/Kg	1		6010B	Total/NA
Nickel	1.33		0.500	0.429	mg/Kg	1		6010B	Total/NA
Vanadium	4.84		1.00	0.172	mg/Kg	1		6010B	Total/NA
Zinc	6.23	J	10.0	5.11	mg/Kg	1		6010B	Total/NA
Mercury	0.0211	J	0.0820	0.0133	mg/Kg	1		7471A	Total/NA

Client Sample ID: B7-0.5 — Lab Sample ID: 570-65130-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	6.4		5.0	0.25	ug/Kg	1		8081A	Total/NA
Barium	6.04		0.478	0.212	mg/Kg	1		6010B	Total/NA
Beryllium	0.260		0.239	0.164	mg/Kg	1		6010B	Total/NA
Cadmium	0.231	J	0.478	0.193	mg/Kg	1		6010B	Total/NA
Chromium	1.03		0.957	0.168	mg/Kg	1		6010B	Total/NA
Cobalt	1.12		0.957	0.218	mg/Kg	1		6010B	Total/NA
Copper	2.13		0.957	0.485	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B7-0.5 (Continued)

Lab Sample ID: 570-65130-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.955	J	4.78	0.925	mg/Kg	1		6010B	Total/NA
Nickel	1.23		0.478	0.411	mg/Kg	1		6010B	Total/NA
Vanadium	5.03		0.957	0.164	mg/Kg	1		6010B	Total/NA
Zinc	6.10	J	9.57	4.89	mg/Kg	1		6010B	Total/NA

Client Sample ID: B7-5

Lab Sample ID: 570-65130-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C24 - RA	5.4		4.8	3.7	mg/Kg	1		8015B	Total/NA
C25-C28 - RA	26		4.8	3.7	mg/Kg	1		8015B	Total/NA
C29-C32 - RA	49		4.8	3.7	mg/Kg	1		8015B	Total/NA
C33-C36 - RA	49		4.8	3.7	mg/Kg	1		8015B	Total/NA
C37-C40 - RA	39		4.8	3.7	mg/Kg	1		8015B	Total/NA
C41-C44 - RA	17		4.8	3.7	mg/Kg	1		8015B	Total/NA
C6-C44 - RA	180		4.8	3.7	mg/Kg	1		8015B	Total/NA
Barium	4.11		0.483	0.214	mg/Kg	1		6010B	Total/NA
Beryllium	0.173	J	0.242	0.165	mg/Kg	1		6010B	Total/NA
Chromium	0.654	J	0.966	0.170	mg/Kg	1		6010B	Total/NA
Cobalt	0.671	J	0.966	0.220	mg/Kg	1		6010B	Total/NA
Copper	1.16		0.966	0.490	mg/Kg	1		6010B	Total/NA
Nickel	0.722		0.483	0.415	mg/Kg	1		6010B	Total/NA
Vanadium	3.44		0.966	0.166	mg/Kg	1		6010B	Total/NA

Client Sample ID: B8-0.5

Lab Sample ID: 570-65130-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	1.3	J p	5.0	0.53	ug/Kg	1		8081A	Total/NA
Dieldrin	0.31	J p	5.0	0.25	ug/Kg	1		8081A	Total/NA
Barium	7.62		0.498	0.221	mg/Kg	1		6010B	Total/NA
Beryllium	0.291		0.249	0.170	mg/Kg	1		6010B	Total/NA
Cadmium	0.257	J	0.498	0.201	mg/Kg	1		6010B	Total/NA
Chromium	1.36		0.995	0.175	mg/Kg	1		6010B	Total/NA
Cobalt	1.41		0.995	0.226	mg/Kg	1		6010B	Total/NA
Copper	2.63		0.995	0.505	mg/Kg	1		6010B	Total/NA
Lead	1.16	J	4.98	0.962	mg/Kg	1		6010B	Total/NA
Nickel	1.61		0.498	0.427	mg/Kg	1		6010B	Total/NA
Vanadium	6.52		0.995	0.171	mg/Kg	1		6010B	Total/NA
Zinc	8.59	J	9.95	5.09	mg/Kg	1		6010B	Total/NA

Client Sample ID: B8-5

Lab Sample ID: 570-65130-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	J	20	9.8	ug/Kg	1		8260B	Total/NA
C21-C22	12		9.4	7.2	mg/Kg	2		8015B	Total/NA
C23-C24	20		9.4	7.2	mg/Kg	2		8015B	Total/NA
C25-C28	76		9.4	7.2	mg/Kg	2		8015B	Total/NA
C29-C32	140		9.4	7.2	mg/Kg	2		8015B	Total/NA
C33-C36	130		9.4	7.2	mg/Kg	2		8015B	Total/NA
C37-C40	96		9.4	7.2	mg/Kg	2		8015B	Total/NA
C41-C44	39		9.4	7.2	mg/Kg	2		8015B	Total/NA
C6-C44	500		9.4	7.2	mg/Kg	2		8015B	Total/NA
Barium	6.82		0.500	0.222	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B8-5 (Continued)

Lab Sample ID: 570-65130-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.264		0.250	0.171	mg/Kg	1		6010B	Total/NA
Cadmium	0.220	J	0.500	0.202	mg/Kg	1		6010B	Total/NA
Chromium	1.38		1.00	0.176	mg/Kg	1		6010B	Total/NA
Cobalt	1.22		1.00	0.227	mg/Kg	1		6010B	Total/NA
Copper	2.55		1.00	0.507	mg/Kg	1		6010B	Total/NA
Lead	1.01	J	5.00	0.967	mg/Kg	1		6010B	Total/NA
Nickel	1.60		0.500	0.429	mg/Kg	1		6010B	Total/NA
Vanadium	6.30		1.00	0.172	mg/Kg	1		6010B	Total/NA
Zinc	7.22	J	10.0	5.11	mg/Kg	1		6010B	Total/NA

Client Sample ID: B9-0.5

Lab Sample ID: 570-65130-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	8.47		0.488	0.216	mg/Kg	1		6010B	Total/NA
Beryllium	0.286		0.244	0.167	mg/Kg	1		6010B	Total/NA
Cadmium	0.282	J	0.488	0.197	mg/Kg	1		6010B	Total/NA
Chromium	1.41		0.976	0.171	mg/Kg	1		6010B	Total/NA
Cobalt	1.54		0.976	0.222	mg/Kg	1		6010B	Total/NA
Copper	2.59		0.976	0.495	mg/Kg	1		6010B	Total/NA
Lead	1.33	J	4.88	0.943	mg/Kg	1		6010B	Total/NA
Nickel	1.70		0.488	0.419	mg/Kg	1		6010B	Total/NA
Vanadium	6.73		0.976	0.167	mg/Kg	1		6010B	Total/NA
Zinc	7.40	J	9.76	4.99	mg/Kg	1		6010B	Total/NA

Client Sample ID: B9-5

Lab Sample ID: 570-65130-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	4.3	J	4.9	3.7	mg/Kg	1		8015B	Total/NA
C33-C36	8.4		4.9	3.7	mg/Kg	1		8015B	Total/NA
C37-C40	7.2		4.9	3.7	mg/Kg	1		8015B	Total/NA
C6-C44	28		4.9	3.7	mg/Kg	1		8015B	Total/NA
Barium	9.17		0.481	0.213	mg/Kg	1		6010B	Total/NA
Beryllium	0.327		0.240	0.164	mg/Kg	1		6010B	Total/NA
Cadmium	0.308	J	0.481	0.194	mg/Kg	1		6010B	Total/NA
Chromium	1.73		0.962	0.169	mg/Kg	1		6010B	Total/NA
Cobalt	1.78		0.962	0.219	mg/Kg	1		6010B	Total/NA
Copper	3.38		0.962	0.488	mg/Kg	1		6010B	Total/NA
Lead	1.52	J	4.81	0.930	mg/Kg	1		6010B	Total/NA
Nickel	1.96		0.481	0.413	mg/Kg	1		6010B	Total/NA
Vanadium	8.12		0.962	0.165	mg/Kg	1		6010B	Total/NA
Zinc	10.3		9.62	4.92	mg/Kg	1		6010B	Total/NA

Client Sample ID: B10-0.5

Lab Sample ID: 570-65130-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.81	J	4.9	0.53	ug/Kg	1		8081A	Total/NA
4,4'-DDT	1.0	J	4.9	0.93	ug/Kg	1		8081A	Total/NA
Barium	8.13		0.515	0.229	mg/Kg	1		6010B	Total/NA
Beryllium	0.310		0.258	0.176	mg/Kg	1		6010B	Total/NA
Cadmium	0.250	J	0.515	0.208	mg/Kg	1		6010B	Total/NA
Chromium	1.44		1.03	0.181	mg/Kg	1		6010B	Total/NA
Cobalt	1.43		1.03	0.234	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B10-0.5 (Continued)

Lab Sample ID: 570-65130-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	2.73		1.03	0.523	mg/Kg	1		6010B	Total/NA
Nickel	1.82		0.515	0.443	mg/Kg	1		6010B	Total/NA
Vanadium	7.00		1.03	0.177	mg/Kg	1		6010B	Total/NA
Zinc	8.17	J	10.3	5.27	mg/Kg	1		6010B	Total/NA

Client Sample ID: B10-5

Lab Sample ID: 570-65130-51

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	9.2		4.9	3.8	mg/Kg	1		8015B	Total/NA
C29-C32	18		4.9	3.8	mg/Kg	1		8015B	Total/NA
C33-C36	21		4.9	3.8	mg/Kg	1		8015B	Total/NA
C37-C40	20		4.9	3.8	mg/Kg	1		8015B	Total/NA
C41-C44	9.5		4.9	3.8	mg/Kg	1		8015B	Total/NA
C6-C44	76		4.9	3.8	mg/Kg	1		8015B	Total/NA
Barium	13.2		0.508	0.225	mg/Kg	1		6010B	Total/NA
Beryllium	0.242	J	0.254	0.174	mg/Kg	1		6010B	Total/NA
Cadmium	0.445	J	0.508	0.205	mg/Kg	1		6010B	Total/NA
Chromium	4.10		1.02	0.178	mg/Kg	1		6010B	Total/NA
Cobalt	2.38		1.02	0.231	mg/Kg	1		6010B	Total/NA
Copper	4.76		1.02	0.515	mg/Kg	1		6010B	Total/NA
Lead	1.42	J	5.08	0.982	mg/Kg	1		6010B	Total/NA
Nickel	3.46		0.508	0.436	mg/Kg	1		6010B	Total/NA
Vanadium	8.45		1.02	0.174	mg/Kg	1		6010B	Total/NA
Zinc	17.1		10.2	5.19	mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B6-5
Date Collected: 07/21/21 15:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Chloroform	ND		0.99	0.58	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
cis-1,2-Dichloroethene	ND		0.99	0.33	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Ethanol	ND		250	65	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Ethylbenzene	ND		0.99	0.20	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
p-Isopropyltoluene	ND		0.99	0.69	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5
Date Collected: 07/21/21 15:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.99	0.69	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Vinyl acetate	ND	*-	9.9	3.9	ug/Kg		07/23/21 15:36	07/23/21 17:54	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 15:36	07/23/21 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 13:86*	*07/28/21 17:34*	*1*
Dibromofluoromethane (Surr)	*93*		*47 - 142*	*07/28/21 13:86*	*07/28/21 17:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/28/21 13:86*	*07/28/21 17:34*	*1*
Toluene-d5 (Surr)	*97*		*50 - 120*	*07/28/21 13:86*	*07/28/21 17:34*	*1*

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.9	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Bromoform	ND		5.1	1.3	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
2-Butanone	ND		20	4.6	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Chloroform	ND		1.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Chloromethane	ND		20	1.6	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 15:36	07/23/21 18:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Dibromochloromethane	ND		2.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Dichlorodifluoromethane	ND		2.0	0.46	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
2,2-Dichloropropane	ND		5.1	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Ethanol	ND		250	67	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Isopropylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
m,p-Xylene	ND		2.0	0.48	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Naphthalene	ND		10	5.3	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
N-Propylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
o-Xylene	ND		1.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
p-Isopropyltoluene	ND		1.0	0.71	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
sec-Butylbenzene	ND		1.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Styrene	ND		1.0	0.71	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
tert-Butyl alcohol (TBA)	ND		20	7.1	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Toluene	ND		1.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 15:36	07/23/21 18:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.47	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
1,3,5-Trimethylbenzene	ND		2.0	0.61	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Vinyl acetate	ND	*-	10	4.0	ug/Kg		07/23/21 15:36	07/23/21 18:19	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*76 - 120*	*07/28/21 13:86*	*07/28/21 15:19*	*1*
Dibromofluoromethane (Surr)	*94*		*47 - 142*	*07/28/21 13:86*	*07/28/21 15:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 141*	*07/28/21 13:86*	*07/28/21 15:19*	*1*
Toluene-d5 (Surr)	*95*		*50 - 120*	*07/28/21 13:86*	*07/28/21 15:19*	*1*

Client Sample ID: B1-5
Date Collected: 07/22/21 11:12
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-11
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**27**		20	9.8	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2-Dibromo-3-Chloropropane	ND		10	6.7	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Dibromomethane	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2-Dichloroethane	ND		1.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1-Dichloroethene	ND		1.0	0.26	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2-Dichloropropane	ND		1.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,3-Dichloropropane	ND		1.0	0.29	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 15:36	07/23/21 18:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-5
Date Collected: 07/22/21 11:12
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-11
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		250	66	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Ethylbenzene	**0.34**	**J**	1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
m,p-Xylene	**1.9**	**J**	2.0	0.47	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
o-Xylene	**0.68**	**J**	1.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Vinyl acetate	ND	*-	10	3.9	ug/Kg		07/23/21 15:36	07/23/21 18:45	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*76 - 120*	*07/28/21 13:86*	*07/28/21 15:43*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 13:86*	*07/28/21 15:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/28/21 13:86*	*07/28/21 15:43*	*1*
Toluene-d5 (Surr)	*97*		*50 - 120*	*07/28/21 13:86*	*07/28/21 15:43*	*1*

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Chloroform	ND		0.99	0.59	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
cis-1,2-Dichloroethene	ND		0.99	0.34	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Ethanol	ND		250	66	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Ethylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
p-Isopropyltoluene	ND		0.99	0.70	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Styrene	ND		0.99	0.70	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 15:36	07/23/21 19:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Vinyl acetate	ND	*-	9.9	3.9	ug/Kg		07/23/21 15:36	07/23/21 19:10	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 15:36	07/23/21 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*76 - 120*	*07/28/21 13:86*	*07/28/21 19:10*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 13:86*	*07/28/21 19:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 141*	*07/28/21 13:86*	*07/28/21 19:10*	*1*
Toluene-d5 (Surr)	*95*		*50 - 120*	*07/28/21 13:86*	*07/28/21 19:10*	*1*

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	9.5	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Benzene	ND		0.97	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Bromobenzene	ND		0.97	0.20	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Bromochloromethane	ND		1.9	0.43	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Bromodichloromethane	ND		0.97	0.15	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Bromoform	ND		4.8	1.3	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Bromomethane	ND		19	6.4	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
2-Butanone	ND		19	4.4	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Carbon disulfide	ND		9.7	0.39	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Carbon tetrachloride	ND		0.97	0.29	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Chlorobenzene	ND		0.97	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Chloroethane	ND		1.9	1.5	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Chloroform	ND		0.97	0.57	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Chloromethane	ND		19	1.5	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
2-Chlorotoluene	ND		0.97	0.24	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
4-Chlorotoluene	ND		0.97	0.23	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
cis-1,2-Dichloroethene	ND		0.97	0.33	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
cis-1,3-Dichloropropene	ND		0.97	0.34	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Dibromochloromethane	ND		1.9	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		9.7	6.6	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2-Dibromoethane	ND		0.97	0.20	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Dibromomethane	ND		0.97	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2-Dichlorobenzene	ND		0.97	0.24	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,3-Dichlorobenzene	ND		0.97	0.24	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,4-Dichlorobenzene	ND		0.97	0.30	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Dichlorodifluoromethane	ND		1.9	0.44	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2-Dichloroethane	ND		0.97	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1-Dichloroethene	ND		0.97	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2-Dichloropropane	ND		0.97	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,3-Dichloropropane	ND		0.97	0.29	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
2,2-Dichloropropane	ND		4.8	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1-Dichloropropene	ND		1.9	0.38	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Di-isopropyl ether (DIPE)	ND		0.97	0.48	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Ethanol	ND		240	64	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Ethylbenzene	ND		0.97	0.20	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Ethyl-t-butyl ether (ETBE)	ND		0.97	0.23	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
2-Hexanone	ND		19	3.0	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Isopropylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Methylene Chloride	ND		9.7	3.0	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
4-Methyl-2-pentanone	ND		19	2.8	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Methyl-t-Butyl Ether (MTBE)	ND		1.9	0.18	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
m,p-Xylene	ND		1.9	0.46	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Naphthalene	ND		9.7	5.0	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
n-Butylbenzene	ND		0.97	0.20	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
N-Propylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
o-Xylene	ND		0.97	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
p-Isopropyltoluene	ND		0.97	0.68	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
sec-Butylbenzene	ND		0.97	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Styrene	ND		0.97	0.68	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Tert-amyl-methyl ether (TAME)	ND		0.97	0.19	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
tert-Butyl alcohol (TBA)	ND		19	6.8	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
tert-Butylbenzene	ND		0.97	0.25	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1,1,2-Tetrachloroethane	ND		0.97	0.28	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.53	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Tetrachloroethene	ND		0.97	0.22	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Toluene	ND		0.97	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
trans-1,2-Dichloroethene	ND		0.97	0.29	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
trans-1,3-Dichloropropene	ND		1.9	0.27	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2,3-Trichlorobenzene	ND		1.9	0.97	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2,4-Trichlorobenzene	ND		1.9	0.40	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1,1-Trichloroethane	ND		0.97	0.23	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1,2-Trichloroethane	ND		0.97	0.45	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Trichloroethene	ND		1.9	0.37	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Trichlorofluoromethane	ND		9.7	0.26	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2,3-Trichloropropane	ND		1.9	0.41	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.7	0.45	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
1,2,4-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Vinyl acetate	ND	*-	9.7	3.8	ug/Kg		07/23/21 15:36	07/23/21 19:35	1
Vinyl chloride	ND		0.97	0.37	ug/Kg		07/23/21 15:36	07/23/21 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 13:86*	*07/28/21 19:83*	*1*
Dibromofluoromethane (Surr)	*93*		*47 - 142*	*07/28/21 13:86*	*07/28/21 19:83*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 141*	*07/28/21 13:86*	*07/28/21 19:83*	*1*
Toluene-d5 (Surr)	*97*		*50 - 120*	*07/28/21 13:86*	*07/28/21 19:83*	*1*

Client Sample ID: B26-5
Date Collected: 07/22/21 09:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-23
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Bromoform	ND		5.1	1.4	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
2-Butanone	ND		21	4.6	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Chloroethane	ND		2.1	1.5	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
2,2-Dichloropropane	ND		5.1	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Ethanol	ND		260	68	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 19:33	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B26-5
Date Collected: 07/22/21 09:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-23
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
p-Isopropyltoluene	ND		1.0	0.72	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Styrene	ND		1.0	0.72	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2,4-Trichlorobenzene	ND		2.1	0.42	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Vinyl acetate	ND	*- F2	10	4.0	ug/Kg		07/23/21 17:17	07/23/21 19:33	1
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 17:17	07/23/21 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 17:17*	*07/28/21 19:88*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 17:17*	*07/28/21 19:88*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 141*	*07/28/21 17:17*	*07/28/21 19:88*	*1*
Toluene-d5 (Surr)	*100*		*50 - 120*	*07/28/21 17:17*	*07/28/21 19:88*	*1*

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.9	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:18	07/23/21 21:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Ethanol	ND		250	66	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Vinyl acetate	ND	*-	10	3.9	ug/Kg		07/23/21 17:18	07/23/21 21:16	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 17:18	07/23/21 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 17:15*	*07/28/21 21:16*	*1*
Dibromofluoromethane (Surr)	*93*		*47 - 142*	*07/28/21 17:15*	*07/28/21 21:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 141*	*07/28/21 17:15*	*07/28/21 21:16*	*1*
Toluene-d5 (Surr)	*102*		*50 - 120*	*07/28/21 17:15*	*07/28/21 21:16*	*1*

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Benzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Bromobenzene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Bromodichloromethane	ND		1.0	0.17	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Bromoform	ND		5.2	1.4	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
2-Butanone	ND		21	4.7	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Carbon disulfide	ND		10	0.42	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Chlorobenzene	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Chloroethane	ND		2.1	1.6	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2-Dibromo-3-Chloropropane	ND		10	7.0	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 21:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0	0.32	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1-Dichloroethene	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2-Dichloropropane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,3-Dichloropropane	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
2,2-Dichloropropane	ND		5.2	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Di-isopropyl ether (DIPE)	ND		1.0	0.52	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Ethanol	ND		260	69	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Ethylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Isopropylbenzene	ND		1.0	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Methylene Chloride	ND		10	3.3	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.20	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Naphthalene	ND		10	5.4	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
N-Propylbenzene	ND		2.1	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
o-Xylene	ND		1.0	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
p-Isopropyltoluene	ND		1.0	0.73	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
sec-Butylbenzene	ND		1.0	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Styrene	ND		1.0	0.73	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
tert-Butyl alcohol (TBA)	ND		21	7.3	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
tert-Butylbenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.57	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Toluene	ND		1.0	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2,4-Trichlorobenzene	ND		2.1	0.43	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2,3-Trichloropropane	ND		2.1	0.44	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.48	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,2,4-Trimethylbenzene	ND		2.1	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
1,3,5-Trimethylbenzene	ND		2.1	0.63	ug/Kg		07/23/21 17:18	07/23/21 21:42	1
Vinyl acetate	ND	*-	10	4.1	ug/Kg		07/23/21 17:18	07/23/21 21:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*76 - 120*	*07/28/21 17:15*	*07/28/21 21:42*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 17:15*	*07/28/21 21:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 141*	*07/28/21 17:15*	*07/28/21 21:42*	*1*
Toluene-d5 (Surr)	*102*		*50 - 120*	*07/28/21 17:15*	*07/28/21 21:42*	*1*

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		21	10	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Bromochloromethane	ND		2.1	0.46	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Bromoform	ND		5.1	1.4	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Bromomethane	ND		21	6.8	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
2-Butanone	ND		21	4.6	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Carbon disulfide	ND		10	0.41	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Carbon tetrachloride	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Chloroethane	ND		2.1	1.5	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Chloroform	ND		1.0	0.61	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Chloromethane	ND		21	1.6	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
2-Chlorotoluene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
4-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
cis-1,2-Dichloroethene	ND		1.0	0.35	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Dibromochloromethane	ND		2.1	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2-Dibromo-3-Chloropropane	ND		10	6.9	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,3-Dichlorobenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Dichlorodifluoromethane	ND		2.1	0.47	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1-Dichloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
2,2-Dichloropropane	ND		5.1	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1-Dichloropropene	ND		2.1	0.40	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Di-isopropyl ether (DIPE)	ND		1.0	0.51	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Ethanol	ND		260	68	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
2-Hexanone	ND		21	3.2	ug/Kg		07/23/21 17:18	07/23/21 22:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Methylene Chloride	ND		10	3.2	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
4-Methyl-2-pentanone	ND		21	3.0	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Methyl-t-Butyl Ether (MTBE)	ND		2.1	0.19	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
m,p-Xylene	ND		2.1	0.49	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Naphthalene	ND		10	5.3	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
n-Butylbenzene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
N-Propylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
o-Xylene	ND		1.0	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
p-Isopropyltoluene	ND		1.0	0.72	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
sec-Butylbenzene	ND		1.0	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Styrene	ND		1.0	0.72	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
tert-Butyl alcohol (TBA)	ND		21	7.2	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1,2,2-Tetrachloroethane	ND		2.1	0.56	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Toluene	ND		1.0	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
trans-1,2-Dichloroethene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
trans-1,3-Dichloropropene	ND		2.1	0.29	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2,3-Trichlorobenzene	ND		2.1	1.0	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2,4-Trichlorobenzene	ND		2.1	0.42	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1,2-Trichloroethane	ND		1.0	0.48	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Trichloroethene	ND		2.1	0.40	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Trichlorofluoromethane	ND		10	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2,3-Trichloropropane	ND		2.1	0.43	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.47	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,2,4-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
1,3,5-Trimethylbenzene	ND		2.1	0.62	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Vinyl acetate	ND	*-	10	4.0	ug/Kg		07/23/21 17:18	07/23/21 22:08	1
Vinyl chloride	ND		1.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*76 - 120*	*07/28/21 17:15*	*07/28/21 22:05*	*1*
Dibromofluoromethane (Surr)	*97*		*47 - 142*	*07/28/21 17:15*	*07/28/21 22:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 141*	*07/28/21 17:15*	*07/28/21 22:05*	*1*
Toluene-d5 (Surr)	*102*		*50 - 120*	*07/28/21 17:15*	*07/28/21 22:05*	*1*

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.9	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Bromochloromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 17:18	07/23/21 22:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Dichlorodifluoromethane	ND		2.0	0.46	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Ethanol	ND		250	66	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
m,p-Xylene	ND		2.0	0.48	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Naphthalene	ND		10	5.3	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Styrene	ND		1.0	0.71	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.20	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
tert-Butylbenzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.55	ug/Kg		07/23/21 17:18	07/23/21 22:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.23	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1,1-Trichloroethane	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1,2-Trichloroethane	ND		1.0	0.47	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.47	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Vinyl acetate	ND	*-	10	3.9	ug/Kg		07/23/21 17:18	07/23/21 22:34	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 17:18	07/23/21 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 17:15*	*07/28/21 22:84*	*1*
Dibromofluoromethane (Surr)	*93*		*47 - 142*	*07/28/21 17:15*	*07/28/21 22:84*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 141*	*07/28/21 17:15*	*07/28/21 22:84*	*1*
Toluene-d5 (Surr)	*102*		*50 - 120*	*07/28/21 17:15*	*07/28/21 22:84*	*1*

Client Sample ID: B8-5
Date Collected: 07/22/21 12:49
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-43
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**15**	**J**	20	9.8	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Chloroform	ND		0.99	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
cis-1,2-Dichloroethene	ND		0.99	0.33	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-5
Date Collected: 07/22/21 12:49
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-43
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Ethanol	ND		250	65	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Ethylbenzene	ND		0.99	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
p-Isopropyltoluene	ND		0.99	0.69	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Styrene	ND		0.99	0.69	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Vinyl acetate	ND	*-	9.9	3.9	ug/Kg		07/23/21 17:18	07/23/21 23:01	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 17:18	07/23/21 23:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*94*		*76 - 120*	*07/28/21 17:15*	*07/28/21 28:01*	*1*
Dibromofluoromethane (Surr)	*95*		*47 - 142*	*07/28/21 17:15*	*07/28/21 28:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 141*	*07/28/21 17:15*	*07/28/21 28:01*	*1*
Toluene-d5 (Surr)	*100*		*50 - 120*	*07/28/21 17:15*	*07/28/21 28:01*	*1*

Client Sample ID: B9-5
Date Collected: 07/22/21 13:22
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-47
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	9.5	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Benzene	ND		0.96	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Bromobenzene	ND		0.96	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Bromochloromethane	ND		1.9	0.43	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Bromodichloromethane	ND		0.96	0.15	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Bromoform	ND		4.8	1.3	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Bromomethane	ND		19	6.3	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
2-Butanone	ND		19	4.3	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Carbon disulfide	ND		9.6	0.39	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Carbon tetrachloride	ND		0.96	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Chlorobenzene	ND		0.96	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Chloroethane	ND		1.9	1.4	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Chloroform	ND		0.96	0.57	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Chloromethane	ND		19	1.5	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
2-Chlorotoluene	ND		0.96	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
4-Chlorotoluene	ND		0.96	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
cis-1,2-Dichloroethene	ND		0.96	0.33	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
cis-1,3-Dichloropropene	ND		0.96	0.34	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Dibromochloromethane	ND		1.9	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2-Dibromo-3-Chloropropane	ND		9.6	6.5	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2-Dibromoethane	ND		0.96	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Dibromomethane	ND		0.96	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2-Dichlorobenzene	ND		0.96	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,3-Dichlorobenzene	ND		0.96	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,4-Dichlorobenzene	ND		0.96	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Dichlorodifluoromethane	ND		1.9	0.44	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1-Dichloroethane	ND		0.96	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2-Dichloroethane	ND		0.96	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1-Dichloroethene	ND		0.96	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2-Dichloropropane	ND		0.96	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,3-Dichloropropane	ND		0.96	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
2,2-Dichloropropane	ND		4.8	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1-Dichloropropene	ND		1.9	0.37	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Di-isopropyl ether (DIPE)	ND		0.96	0.48	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Ethanol	ND		240	63	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Ethylbenzene	ND		0.96	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Ethyl-t-butyl ether (ETBE)	ND		0.96	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
2-Hexanone	ND		19	3.0	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Isopropylbenzene	ND		0.96	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Methylene Chloride	ND		9.6	3.0	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
4-Methyl-2-pentanone	ND		19	2.8	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Methyl-t-Butyl Ether (MTBE)	ND		1.9	0.18	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
m,p-Xylene	ND		1.9	0.46	ug/Kg		07/23/21 17:18	07/23/21 23:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B9-5
Date Collected: 07/22/21 13:22
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-47
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		9.6	5.0	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
n-Butylbenzene	ND		0.96	0.20	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
N-Propylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
o-Xylene	ND		0.96	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
p-Isopropyltoluene	ND		0.96	0.67	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
sec-Butylbenzene	ND		0.96	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Styrene	ND		0.96	0.67	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Tert-amyl-methyl ether (TAME)	ND		0.96	0.19	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
tert-Butyl alcohol (TBA)	ND		19	6.7	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
tert-Butylbenzene	ND		0.96	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1,1,2-Tetrachloroethane	ND		0.96	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.52	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Tetrachloroethene	ND		0.96	0.22	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Toluene	ND		0.96	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
trans-1,2-Dichloroethene	ND		0.96	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
trans-1,3-Dichloropropene	ND		1.9	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2,3-Trichlorobenzene	ND		1.9	0.96	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2,4-Trichlorobenzene	ND		1.9	0.40	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1,1-Trichloroethane	ND		0.96	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1,2-Trichloroethane	ND		0.96	0.45	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Trichloroethene	ND		1.9	0.37	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Trichlorofluoromethane	ND		9.6	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2,3-Trichloropropane	ND		1.9	0.40	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.6	0.45	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,2,4-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
1,3,5-Trimethylbenzene	ND		1.9	0.58	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Vinyl acetate	ND	*-	9.6	3.8	ug/Kg		07/23/21 17:18	07/23/21 23:26	1
Vinyl chloride	ND		0.96	0.36	ug/Kg		07/23/21 17:18	07/23/21 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*	*07/28/21 17:15*	*07/28/21 28:26*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 17:15*	*07/28/21 28:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 141*	*07/28/21 17:15*	*07/28/21 28:26*	*1*
Toluene-d5 (Surr)	*100*		*50 - 120*	*07/28/21 17:15*	*07/28/21 28:26*	*1*

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	9.8	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Dibromomethane	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Ethanol	ND		250	66	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 17:18	07/23/21 23:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Vinyl acetate	ND	*-	10	3.9	ug/Kg		07/23/21 17:18	07/23/21 23:52	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 17:18	07/23/21 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*76 - 120*	*07/28/21 17:15*	*07/28/21 28:32*	*1*
Dibromofluoromethane (Surr)	*96*		*47 - 142*	*07/28/21 17:15*	*07/28/21 28:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 141*	*07/28/21 17:15*	*07/28/21 28:32*	*1*
Toluene-d5 (Surr)	*102*		*50 - 120*	*07/28/21 17:15*	*07/28/21 28:32*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B6-5
Date Collected: 07/21/21 15:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C7 as C7	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C8 as C8	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C9-C10	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C11-C12	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C13-C14	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C15-C16	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C17-C18	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C19-C20	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C21-C22	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C23-C24	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C25-C28	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C29-C32	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C33-C36	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C37-C40	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C41-C44	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1
C6-C44	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*91*		*60 - 185*	*07/27/21 14:89*	*07/25/21 07:42*	*1*

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C7 as C7	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C8 as C8	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C9-C10	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C11-C12	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C13-C14	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C15-C16	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C17-C18	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C19-C20	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C21-C22	**4.0**	**J**	4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C23-C24	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C25-C28	**5.8**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C29-C32	**8.1**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C33-C36	**7.8**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C37-C40	**4.8**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C41-C44	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1
C6-C44	**32**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 08:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*61*		*60 - 185*	*07/27/21 14:89*	*07/25/21 05:04*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B1-5
Date Collected: 07/22/21 11:12
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-11
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C7 as C7	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C8 as C8	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C9-C10	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C11-C12	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C13-C14	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C15-C16	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C17-C18	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C19-C20	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C21-C22	**4.5**	**J**	5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C23-C24	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C25-C28	**7.1**		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C29-C32	**10**		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C33-C36	**11**		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C37-C40	**6.8**		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C41-C44	ND		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1
C6-C44	**43**		5.1	3.9	mg/Kg		07/27/21 14:39	07/28/21 08:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*64*		*60 - 185*	*07/27/21 14:89*	*07/25/21 05:24*	*1*

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C7 as C7	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C8 as C8	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C9-C10	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C11-C12	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C13-C14	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C15-C16	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C17-C18	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C19-C20	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C21-C22	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C23-C24	**4.3**	**J**	5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C25-C28	**19**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C29-C32	**27**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C33-C36	**26**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C37-C40	**23**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C41-C44	**10**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1
C6-C44	**110**		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*101*		*60 - 185*	*07/27/21 14:89*	*07/25/21 05:43*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C7 as C7	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C8 as C8	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C9-C10	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C11-C12	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C13-C14	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C15-C16	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C17-C18	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C19-C20	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C21-C22	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C23-C24	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C25-C28	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C29-C32	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C33-C36	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C37-C40	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C41-C44	ND		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1
C6-C44	**9.2**		4.7	3.6	mg/Kg		07/27/21 14:39	07/28/21 09:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*93*		*60 - 185*	*07/27/21 14:89*	*07/25/21 09:03*	*1*

Client Sample ID: B26-5
Date Collected: 07/22/21 09:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-23
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C7 as C7	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C8 as C8	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C9-C10	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C11-C12	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C13-C14	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C15-C16	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C17-C18	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C19-C20	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C21-C22	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C23-C24	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C25-C28	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C29-C32	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C33-C36	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C37-C40	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C41-C44	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1
C6-C44	ND		5.3	4.0	mg/Kg		07/27/21 14:39	07/28/21 09:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*53*		*60 - 185*	*07/27/21 14:89*	*07/25/21 09:26*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C7 as C7	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C8 as C8	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C9-C10	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C11-C12	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C13-C14	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C15-C16	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C17-C18	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C19-C20	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C21-C22	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C23-C24	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C25-C28	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C29-C32	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C33-C36	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C37-C40	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C41-C44	ND		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1
C6-C44	**12**		5.0	3.9	mg/Kg		07/27/21 14:39	07/28/21 09:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*96*		*60 - 185*	*07/27/21 14:89*	*07/25/21 09:47*	*1*

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C7 as C7	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C8 as C8	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C9-C10	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C11-C12	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C13-C14	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C15-C16	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C17-C18	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C19-C20	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C21-C22	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C23-C24	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C25-C28	**5.9**		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C29-C32	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C33-C36	**8.2**		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C37-C40	**6.1**		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C41-C44	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1
C6-C44	**30**		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*93*		*60 - 185*	*07/27/21 14:89*	*07/25/21 10:05*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B8-5
Date Collected: 07/22/21 12:49
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-43
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C7 as C7	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C8 as C8	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C9-C10	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C11-C12	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C13-C14	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C15-C16	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C17-C18	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C19-C20	ND		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C21-C22	**12**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C23-C24	**20**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C25-C28	**76**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C29-C32	**140**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C33-C36	**130**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C37-C40	**96**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C41-C44	**39**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2
C6-C44	**500**		9.4	7.2	mg/Kg		07/27/21 14:39	07/28/21 17:34	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*108*		*60 - 185*	*07/27/21 14:89*	*07/25/21 17:84*	*2*

Client Sample ID: B9-5
Date Collected: 07/22/21 13:22
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-47
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C7 as C7	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C8 as C8	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C9-C10	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C11-C12	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C13-C14	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C15-C16	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C17-C18	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C19-C20	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C21-C22	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C23-C24	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C25-C28	**4.3**	**J**	4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C29-C32	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C33-C36	**8.4**		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C37-C40	**7.2**		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C41-C44	ND		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1
C6-C44	**28**		4.9	3.7	mg/Kg		07/27/21 14:39	07/28/21 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*100*		*60 - 185*	*07/27/21 14:89*	*07/25/21 11:31*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C7 as C7	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C8 as C8	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C9-C10	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C11-C12	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C13-C14	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C15-C16	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C17-C18	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C19-C20	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C21-C22	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C23-C24	ND		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C25-C28	**9.2**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C29-C32	**18**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C33-C36	**21**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C37-C40	**20**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C41-C44	**9.5**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1
C6-C44	**76**		4.9	3.8	mg/Kg		07/27/21 14:39	07/28/21 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*101*		*60 - 185*	*07/27/21 14:39*	*07/25/21 12:12*	*1*

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Method: 8015B - Diesel Range Organics (DRO) (GC) - DL

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C7 as C7	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C8 as C8	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C9-C10	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C11-C12	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C13-C14	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C15-C16	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C17-C18	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C19-C20	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C21-C22	ND		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C23-C24	**12**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C25-C28	**62**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C29-C32	**130**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C33-C36	**140**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C37-C40	**110**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C41-C44	**46**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2
C6-C44	**490**		11	8.1	mg/Kg		07/27/21 14:39	07/28/21 12:54	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*100*		*60 - 185*	*07/27/21 14:39*	*07/25/21 12:34*	*2*

Method: 8015B - Diesel Range Organics (DRO) (GC) - RA

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C7 as C7	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C8 as C8	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C9-C10	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C11-C12	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C13-C14	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C15-C16	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C17-C18	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C19-C20	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C21-C22	ND		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C23-C24	**5.4**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C25-C28	**26**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C29-C32	**49**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C33-C36	**49**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C37-C40	**39**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C41-C44	**17**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1
C6-C44	**180**		4.8	3.7	mg/Kg		07/27/21 14:39	07/28/21 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*106*		*60 - 185*	*07/27/21 14:89*	*07/25/21 18:13*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B6-0.5
Date Collected: 07/21/21 15:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
4,4'-DDE	**0.88**	**J**	5.0	0.53	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
4,4'-DDT	**2.0**	**J**	5.0	0.94	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/27/21 12:45	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/27/21 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*85 - 145*	*07/26/21 05:13*	*07/27/21 12:43*	*1*
DCB Decachlorobiphenyl (Surr)	*52*		*87 - 131*	*07/26/21 05:13*	*07/27/21 12:43*	*1*

Client Sample ID: B5-0.5
Date Collected: 07/21/21 14:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
4,4'-DDE	**0.70**	**J**	5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
4,4'-DDT	**1.4**	**J**	5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 18:18	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B5-0.5
Date Collected: 07/21/21 14:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 18:18	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*85 - 145*	*07/26/21 05:13*	*07/25/21 15:15*	*1*
DCB Decachlorobiphenyl (Surr)	*71*		*87 - 131*	*07/26/21 05:13*	*07/25/21 15:15*	*1*

Client Sample ID: B1-0.5
Date Collected: 07/21/21 13:40
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
4,4'-DDT	ND		5.0	0.95	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Aldrin	ND		5.0	0.73	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endosulfan sulfate	ND		5.0	0.41	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endrin	ND		5.0	0.34	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
gamma-BHC	ND		5.0	0.63	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Methoxychlor	ND		5.0	0.82	ug/Kg		07/26/21 08:15	07/27/21 23:48	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/27/21 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*85 - 145*	*07/26/21 05:13*	*07/27/21 28:45*	*1*
DCB Decachlorobiphenyl (Surr)	*52*		*87 - 131*	*07/26/21 05:13*	*07/27/21 28:45*	*1*

Client Sample ID: B11-0.5
Date Collected: 07/22/21 08:17
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
4,4'-DDE	**0.78**	**J**	5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 10:42	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B11-0.5
Date Collected: 07/22/21 08:17
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 10:42	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*85 - 145*	*07/26/21 05:13*	*07/25/21 10:42*	*1*
DCB Decachlorobiphenyl (Surr)	*67*		*87 - 131*	*07/26/21 05:13*	*07/25/21 10:42*	*1*

Client Sample ID: B25-0.5
Date Collected: 07/22/21 09:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
4,4'-DDE	**5.4**		5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
4,4'-DDT	**2.8**	**J p**	5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endrin	ND		5.0	0.34	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 10:56	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*85 - 145*	*07/26/21 05:13*	*07/25/21 10:36*	*1*
DCB Decachlorobiphenyl (Surr)	*77*		*87 - 131*	*07/26/21 05:13*	*07/25/21 10:36*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B26-0.5
Date Collected: 07/22/21 09:28
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
4,4'-DDE	**1.8**	**J**	5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
4,4'-DDT	**1.3**	**J p**	5.0	0.95	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Aldrin	ND		5.0	0.73	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Chlordane	**3.4**	**J p**	25	2.4	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Dieldrin	ND		5.0	0.26	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endosulfan sulfate	ND		5.0	0.41	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endrin	ND		5.0	0.34	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
gamma-BHC	ND		5.0	0.63	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Methoxychlor	ND		5.0	0.82	ug/Kg		07/26/21 08:15	07/28/21 11:11	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 11:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*85 - 145*	*07/26/21 05:13*	*07/25/21 11:11*	*1*
DCB Decachlorobiphenyl (Surr)	*78*		*87 - 131*	*07/26/21 05:13*	*07/25/21 11:11*	*1*

Client Sample ID: B27-0.5
Date Collected: 07/22/21 10:03
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
4,4'-DDT	ND		5.0	0.95	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Aldrin	ND		5.0	0.73	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endosulfan sulfate	ND		5.0	0.41	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endrin	ND		5.0	0.34	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 00:02	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B27-0.5
Date Collected: 07/22/21 10:03
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 00:02	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*85 - 145*	*07/26/21 05:13*	*07/25/21 00:02*	*1*
DCB Decachlorobiphenyl (Surr)	*52*		*87 - 131*	*07/26/21 05:13*	*07/25/21 00:02*	*1*

Client Sample ID: B4-0.5
Date Collected: 07/21/21 13:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
4,4'-DDE	ND		5.0	0.53	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 11:25	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*85 - 145*	*07/26/21 05:13*	*07/25/21 11:23*	*1*
DCB Decachlorobiphenyl (Surr)	*66*		*87 - 131*	*07/26/21 05:13*	*07/25/21 11:23*	*1*

Client Sample ID: B2-0.5
Date Collected: 07/22/21 10:44
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
4,4'-DDE	ND		4.9	0.53	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
4,4'-DDT	ND		4.9	0.93	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Aldrin	ND		4.9	0.71	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/26/21 08:15	07/28/21 11:39	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B2-0.5
Date Collected: 07/22/21 10:44
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	2.3	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endrin	ND		4.9	0.33	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/26/21 08:15	07/28/21 11:39	1
Toxaphene	ND		25	19	ug/Kg		07/26/21 08:15	07/28/21 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*39*		*85 - 145*	*07/26/21 05:13*	*07/25/21 11:89*	*1*
DCB Decachlorobiphenyl (Surr)	*62*		*87 - 131*	*07/26/21 05:13*	*07/25/21 11:89*	*1*

Client Sample ID: B7-0.5
Date Collected: 07/22/21 12:23
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Dieldrin	**6.4**		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 11:54	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*85 - 145*	*07/26/21 05:13*	*07/25/21 11:34*	*1*
DCB Decachlorobiphenyl (Surr)	*71*	*p*	*87 - 131*	*07/26/21 05:13*	*07/25/21 11:34*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: B8-0.5
Date Collected: 07/22/21 12:46
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.98	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
4,4'-DDE	**1.3**	**J p**	5.0	0.53	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Dieldrin	**0.31**	**J p**	5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Endrin ketone	ND		5.0	0.47	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Heptachlor	ND		5.0	0.88	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Heptachlor epoxide	ND		5.0	0.66	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 12:08	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*85 - 145*	*07/26/21 05:13*	*07/25/21 12:05*	*1*
DCB Decachlorobiphenyl (Surr)	*56*	*p*	*87 - 131*	*07/26/21 05:13*	*07/25/21 12:05*	*1*

Client Sample ID: B9-0.5
Date Collected: 07/22/21 13:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
4,4'-DDT	ND		5.0	0.95	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Aldrin	ND		5.0	0.73	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endosulfan sulfate	ND		5.0	0.41	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endrin	ND		5.0	0.34	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
gamma-BHC	ND		5.0	0.63	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/28/21 18:04	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B9-0.5
Date Collected: 07/22/21 13:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/28/21 18:04	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/28/21 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*85 - 145*	*07/26/21 05:13*	*07/25/21 15:04*	*1*
DCB Decachlorobiphenyl (Surr)	*64*		*87 - 131*	*07/26/21 05:13*	*07/25/21 15:04*	*1*

Client Sample ID: B10-0.5
Date Collected: 07/22/21 13:02
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-50
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	0.97	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
4,4'-DDE	**0.81**	**J**	4.9	0.53	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
4,4'-DDT	**1.0**	**J**	4.9	0.93	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Aldrin	ND		4.9	0.71	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
alpha-BHC	ND		4.9	3.0	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
alpha-Chlordane	ND		4.9	1.3	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
beta-BHC	ND		4.9	3.6	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Chlordane	ND		25	2.3	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
delta-BHC	ND		4.9	1.6	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Dieldrin	ND		4.9	0.25	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endosulfan I	ND		4.9	1.1	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endosulfan II	ND		4.9	0.30	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endosulfan sulfate	ND		4.9	0.40	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endrin	ND		4.9	0.33	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endrin aldehyde	ND		4.9	1.7	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Endrin ketone	ND		4.9	0.47	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
gamma-Chlordane	ND		4.9	1.3	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
gamma-BHC	ND		4.9	0.62	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Heptachlor	ND		4.9	0.87	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Heptachlor epoxide	ND		4.9	0.66	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Methoxychlor	ND		4.9	0.80	ug/Kg		07/26/21 08:15	07/28/21 17:49	1
Toxaphene	ND		25	19	ug/Kg		07/26/21 08:15	07/28/21 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*85 - 145*	*07/26/21 05:13*	*07/25/21 17:49*	*1*
DCB Decachlorobiphenyl (Surr)	*72*		*87 - 131*	*07/26/21 05:13*	*07/25/21 17:49*	*1*

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: B3-0.5
Date Collected: 07/21/21 13:55
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1221	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1232	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1242	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1248	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1254	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1260	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1262	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 14:06	1
Aroclor-1268	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*78*		*23 - 126*	*07/28/21 18:28*	*07/26/21 14:06*	*1*
DCB Decachlorobiphenyl (Surr)	*62*		*20 - 133*	*07/28/21 18:28*	*07/26/21 14:06*	*1*

Method: 6010B - Metals (ICP)

Client Sample ID: B6-0.5
Date Collected: 07/21/21 15:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.86	1.29	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Arsenic	ND		2.38	2.16	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Barium	**15.6**		0.476	0.211	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Beryllium	ND		0.238	0.163	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Cadmium	**0.251**	**J**	0.476	0.192	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Chromium	**4.52**		0.952	0.167	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Cobalt	**3.03**		0.952	0.216	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Copper	**6.11**		0.952	0.483	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Lead	**1.38**	**J**	4.76	0.921	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Molybdenum	ND		0.476	0.429	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Nickel	**3.39**		0.476	0.409	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Selenium	ND		4.76	1.76	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Silver	**0.534**	**J**	0.952	0.214	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Thallium	ND		4.76	1.41	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Vanadium	**7.86**		0.952	0.163	mg/Kg		07/27/21 07:11	07/27/21 12:38	1
Zinc	**13.0**		9.52	4.87	mg/Kg		07/27/21 07:11	07/27/21 12:38	1

Client Sample ID: B6-5
Date Collected: 07/21/21 15:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.02	1.36	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Arsenic	ND		2.51	2.28	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Barium	**13.4**		0.503	0.223	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Beryllium	ND		0.251	0.172	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Cadmium	**0.205**	**J**	0.503	0.203	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Chromium	**3.74**		1.01	0.177	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Cobalt	**2.58**		1.01	0.228	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Copper	**5.31**		1.01	0.510	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Lead	**1.14**	**J**	5.03	0.972	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Molybdenum	ND		0.503	0.453	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Nickel	**2.68**		0.503	0.432	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Selenium	ND		5.03	1.86	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Silver	**0.470**	**J**	1.01	0.226	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Thallium	ND		5.03	1.49	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Vanadium	**6.63**		1.01	0.173	mg/Kg		07/27/21 07:11	07/27/21 12:40	1
Zinc	**10.7**		10.1	5.14	mg/Kg		07/27/21 07:11	07/27/21 12:40	1

Client Sample ID: B5-0.5
Date Collected: 07/21/21 14:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.08	1.39	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Arsenic	ND		2.56	2.32	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Barium	**15.8**		0.513	0.227	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Beryllium	ND		0.256	0.175	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Cadmium	**0.222**	**J**	0.513	0.207	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Chromium	**4.79**		1.03	0.180	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Cobalt	**2.85**		1.03	0.233	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Copper	**5.57**		1.03	0.520	mg/Kg		07/27/21 07:11	07/27/21 12:43	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B5-0.5
Date Collected: 07/21/21 14:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.16**	**J**	5.13	0.992	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Molybdenum	ND		0.513	0.462	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Nickel	**3.20**		0.513	0.440	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Selenium	ND		5.13	1.90	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Silver	**0.264**	**J**	1.03	0.231	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Thallium	ND		5.13	1.52	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Vanadium	**7.75**		1.03	0.176	mg/Kg		07/27/21 07:11	07/27/21 12:43	1
Zinc	**11.1**		10.3	5.25	mg/Kg		07/27/21 07:11	07/27/21 12:43	1

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.05	1.38	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Arsenic	ND		2.54	2.30	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Barium	**12.2**		0.508	0.225	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Beryllium	ND		0.254	0.174	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Cadmium	ND		0.508	0.205	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Chromium	**3.59**		1.02	0.178	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Cobalt	**2.36**		1.02	0.231	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Copper	**5.08**		1.02	0.515	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Lead	**1.07**	**J**	5.08	0.982	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Molybdenum	ND		0.508	0.457	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Nickel	**2.61**		0.508	0.436	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Selenium	ND		5.08	1.88	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Silver	ND		1.02	0.229	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Thallium	ND		5.08	1.50	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Vanadium	**6.15**		1.02	0.174	mg/Kg		07/27/21 07:11	07/27/21 12:46	1
Zinc	**10.4**		10.2	5.19	mg/Kg		07/27/21 07:11	07/27/21 12:46	1

Client Sample ID: B1-0.5
Date Collected: 07/21/21 13:40
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.11	1.40	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Arsenic	ND		2.59	2.35	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Barium	**15.4**		0.518	0.230	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Beryllium	ND		0.259	0.177	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Cadmium	**0.211**	**J**	0.518	0.209	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Chromium	**4.03**		1.04	0.182	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Cobalt	**2.71**		1.04	0.236	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Copper	**6.19**		1.04	0.525	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Lead	**1.30**	**J**	5.18	1.00	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Molybdenum	ND		0.518	0.467	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Nickel	**2.97**		0.518	0.445	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Selenium	ND		5.18	1.92	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Silver	**0.359**	**J**	1.04	0.233	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Thallium	ND		5.18	1.54	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Vanadium	**6.87**		1.04	0.178	mg/Kg		07/27/21 07:11	07/27/21 12:48	1
Zinc	**11.5**		10.4	5.30	mg/Kg		07/27/21 07:11	07/27/21 12:48	1

Method: 6010B - Metals (ICP)

Client Sample ID: B1-5
Date Collected: 07/22/21 11:12
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-11
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.14	1.42	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Arsenic	ND		2.62	2.37	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Barium	**9.33**		0.524	0.232	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Beryllium	ND		0.262	0.179	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Cadmium	ND		0.524	0.211	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Chromium	**2.74**		1.05	0.184	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Cobalt	**1.80**		1.05	0.238	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Copper	**3.40**		1.05	0.531	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Lead	ND		5.24	1.01	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Molybdenum	ND		0.524	0.472	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Nickel	**1.89**		0.524	0.450	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Selenium	ND		5.24	1.94	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Silver	ND		1.05	0.236	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Thallium	ND		5.24	1.55	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Vanadium	**4.45**		1.05	0.180	mg/Kg		07/27/21 07:11	07/27/21 12:56	1
Zinc	**7.70**	**J**	10.5	5.36	mg/Kg		07/27/21 07:11	07/27/21 12:56	1

Client Sample ID: B11-0.5
Date Collected: 07/22/21 08:17
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.02	1.36	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Arsenic	ND		2.51	2.28	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Barium	**17.6**		0.503	0.223	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Beryllium	ND		0.251	0.172	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Cadmium	**0.249**	**J**	0.503	0.203	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Chromium	**8.78**		1.01	0.177	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Cobalt	**3.33**		1.01	0.228	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Copper	**5.43**		1.01	0.510	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Lead	**1.08**	**J**	5.03	0.972	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Molybdenum	ND		0.503	0.453	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Nickel	**4.02**		0.503	0.432	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Selenium	ND		5.03	1.86	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Silver	**0.293**	**J**	1.01	0.226	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Thallium	ND		5.03	1.49	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Vanadium	**10.7**		1.01	0.173	mg/Kg		07/27/21 07:11	07/27/21 12:59	1
Zinc	**11.0**		10.1	5.14	mg/Kg		07/27/21 07:11	07/27/21 12:59	1

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.93	1.32	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Arsenic	ND		2.44	2.21	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Barium	**17.0**		0.488	0.216	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Beryllium	ND		0.244	0.167	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Cadmium	**0.236**	**J**	0.488	0.197	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Chromium	**4.38**		0.976	0.171	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Cobalt	**2.96**		0.976	0.222	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Copper	**6.31**		0.976	0.495	mg/Kg		07/27/21 07:11	07/27/21 13:01	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.23**	**J**	4.88	0.943	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Molybdenum	ND		0.488	0.440	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Nickel	**3.31**		0.488	0.419	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Selenium	ND		4.88	1.81	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Silver	**0.834**	**J**	0.976	0.220	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Thallium	ND		4.88	1.45	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Vanadium	**7.88**		0.976	0.167	mg/Kg		07/27/21 07:11	07/27/21 13:01	1
Zinc	**12.4**		9.76	4.99	mg/Kg		07/27/21 07:11	07/27/21 13:01	1

Client Sample ID: B25-0.5
Date Collected: 07/22/21 09:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.90	1.31	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Arsenic	ND		2.42	2.19	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Barium	**16.4**		0.483	0.214	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Beryllium	ND		0.242	0.165	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Cadmium	**0.239**	**J**	0.483	0.195	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Chromium	**4.35**		0.966	0.170	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Cobalt	**2.84**		0.966	0.220	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Copper	**6.47**		0.966	0.490	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Lead	**1.49**	**J**	4.83	0.934	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Molybdenum	ND		0.483	0.435	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Nickel	**3.14**		0.483	0.415	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Selenium	ND		4.83	1.79	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Silver	**0.423**	**J**	0.966	0.218	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Thallium	ND		4.83	1.43	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Vanadium	**7.44**		0.966	0.166	mg/Kg		07/27/21 07:11	07/27/21 13:04	1
Zinc	**12.7**		9.66	4.94	mg/Kg		07/27/21 07:11	07/27/21 13:04	1

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Arsenic	ND		2.58	2.33	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Barium	**18.1**		0.515	0.229	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Beryllium	ND		0.258	0.176	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Cadmium	**0.262**	**J**	0.515	0.208	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Chromium	**4.90**		1.03	0.181	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Cobalt	**3.21**		1.03	0.234	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Copper	**6.76**		1.03	0.523	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Lead	**1.39**	**J**	5.15	0.997	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Nickel	**3.47**		0.515	0.443	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Selenium	ND		5.15	1.91	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Silver	**0.327**	**J**	1.03	0.232	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Thallium	ND		5.15	1.53	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Vanadium	**8.50**		1.03	0.177	mg/Kg		07/27/21 07:11	07/27/21 13:06	1
Zinc	**13.8**		10.3	5.27	mg/Kg		07/27/21 07:11	07/27/21 13:06	1

Method: 6010B - Metals (ICP)

Client Sample ID: B26-0.5
Date Collected: 07/22/21 09:28
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.05	1.38	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Arsenic	ND		2.54	2.30	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Barium	**7.37**		0.508	0.225	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Beryllium	**0.296**		0.254	0.174	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Cadmium	**0.235**	**J**	0.508	0.205	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Chromium	**1.35**		1.02	0.178	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Cobalt	**1.38**		1.02	0.231	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Copper	**2.34**		1.02	0.515	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Lead	**1.23**	**J**	5.08	0.982	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Molybdenum	ND		0.508	0.457	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Nickel	**1.57**		0.508	0.436	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Selenium	ND		5.08	1.88	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Silver	ND		1.02	0.229	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Thallium	ND		5.08	1.50	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Vanadium	**5.79**		1.02	0.174	mg/Kg		07/27/21 08:22	07/27/21 17:52	1
Zinc	**8.03**	**J**	10.2	5.19	mg/Kg		07/27/21 08:22	07/27/21 17:52	1

Client Sample ID: B26-5
Date Collected: 07/22/21 09:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-23
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.96	1.34	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Arsenic	ND		2.46	2.23	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Barium	**11.0**		0.493	0.218	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Beryllium	**0.384**		0.246	0.168	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Cadmium	**0.376**	**J**	0.493	0.199	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Chromium	**1.76**		0.985	0.173	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Cobalt	**2.04**		0.985	0.224	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Copper	**3.94**		0.985	0.500	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Lead	**1.90**	**J**	4.93	0.953	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Molybdenum	ND		0.493	0.444	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Nickel	**2.29**		0.493	0.423	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Selenium	ND		4.93	1.82	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Silver	ND		0.985	0.222	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Thallium	ND		4.93	1.46	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Vanadium	**9.13**		0.985	0.169	mg/Kg		07/27/21 08:22	07/27/21 17:59	1
Zinc	**11.0**		9.85	5.04	mg/Kg		07/27/21 08:22	07/27/21 17:59	1

Client Sample ID: B27-0.5
Date Collected: 07/22/21 10:03
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.99	1.35	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Arsenic	ND		2.49	2.25	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Barium	**13.0**		0.498	0.221	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Beryllium	**0.389**		0.249	0.170	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Cadmium	**0.446**	**J**	0.498	0.201	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Chromium	**2.48**		0.995	0.175	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Cobalt	**2.25**		0.995	0.226	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Copper	**4.33**		0.995	0.505	mg/Kg		07/27/21 08:22	07/27/21 18:02	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B27-0.5
Date Collected: 07/22/21 10:03
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.82**	**J**	4.98	0.962	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Molybdenum	ND		0.498	0.448	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Nickel	**2.67**		0.498	0.427	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Selenium	ND		4.98	1.84	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Silver	ND		0.995	0.224	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Thallium	ND		4.98	1.47	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Vanadium	**10.4**		0.995	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:02	1
Zinc	**12.2**		9.95	5.09	mg/Kg		07/27/21 08:22	07/27/21 18:02	1

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.00	1.36	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Arsenic	ND		2.50	2.26	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Barium	**10.3**		0.500	0.222	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Beryllium	**0.389**		0.250	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Cadmium	**0.372**	**J**	0.500	0.202	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Chromium	**1.92**		1.00	0.176	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Cobalt	**1.77**		1.00	0.227	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Copper	**3.33**		1.00	0.507	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Lead	**1.16**	**J**	5.00	0.967	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Molybdenum	ND		0.500	0.451	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Nickel	**2.16**		0.500	0.429	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Selenium	ND		5.00	1.85	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Silver	ND		1.00	0.225	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Thallium	ND		5.00	1.48	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Vanadium	**8.96**		1.00	0.172	mg/Kg		07/27/21 08:22	07/27/21 18:04	1
Zinc	**10.3**		10.0	5.11	mg/Kg		07/27/21 08:22	07/27/21 18:04	1

Client Sample ID: B4-0.5
Date Collected: 07/21/21 13:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.91	1.32	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Arsenic	ND		2.43	2.20	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Barium	**10.3**		0.485	0.215	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Beryllium	**0.394**		0.243	0.166	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Cadmium	**0.343**	**J**	0.485	0.196	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Chromium	**2.98**		0.971	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Cobalt	**1.94**		0.971	0.221	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Copper	**3.72**		0.971	0.492	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Lead	**1.31**	**J**	4.85	0.939	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Molybdenum	ND		0.485	0.437	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Nickel	**2.28**		0.485	0.417	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Selenium	ND		4.85	1.80	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Silver	ND		0.971	0.219	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Thallium	ND		4.85	1.44	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Vanadium	**9.37**		0.971	0.167	mg/Kg		07/27/21 08:22	07/27/21 18:06	1
Zinc	**10.7**		9.71	4.97	mg/Kg		07/27/21 08:22	07/27/21 18:06	1

Method: 6010B - Metals (ICP)

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.93	1.32	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Arsenic	ND		2.44	2.21	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Barium	**7.48**		0.488	0.216	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Beryllium	**0.259**		0.244	0.167	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Cadmium	**0.257**	**J**	0.488	0.197	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Chromium	**1.26**		0.976	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Cobalt	**1.43**		0.976	0.222	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Copper	**2.41**		0.976	0.495	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Lead	**1.14**	**J**	4.88	0.943	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Molybdenum	ND		0.488	0.440	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Nickel	**1.64**		0.488	0.419	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Selenium	ND		4.88	1.81	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Silver	ND		0.976	0.220	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Thallium	ND		4.88	1.45	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Vanadium	**6.32**		0.976	0.167	mg/Kg		07/27/21 08:22	07/27/21 18:08	1
Zinc	**7.37**	**J**	9.76	4.99	mg/Kg		07/27/21 08:22	07/27/21 18:08	1

Client Sample ID: B2-0.5
Date Collected: 07/22/21 10:44
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.99	1.35	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Arsenic	ND		2.49	2.25	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Barium	**7.80**		0.498	0.221	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Beryllium	**0.295**		0.249	0.170	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Cadmium	**0.246**	**J**	0.498	0.201	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Chromium	**1.40**		0.995	0.175	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Cobalt	**1.38**		0.995	0.226	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Copper	**2.61**		0.995	0.505	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Lead	**1.40**	**J**	4.98	0.962	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Molybdenum	ND		0.498	0.448	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Nickel	**1.50**		0.498	0.427	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Selenium	ND		4.98	1.84	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Silver	ND		0.995	0.224	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Thallium	ND		4.98	1.47	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Vanadium	**6.40**		0.995	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:11	1
Zinc	**8.70**	**J**	9.95	5.09	mg/Kg		07/27/21 08:22	07/27/21 18:11	1

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.00	1.36	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Arsenic	ND		2.50	2.26	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Barium	**7.31**		0.500	0.222	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Beryllium	**0.220**	**J**	0.250	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Cadmium	ND		0.500	0.202	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Chromium	**1.10**		1.00	0.176	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Cobalt	**1.15**		1.00	0.227	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Copper	**1.91**		1.00	0.507	mg/Kg		07/27/21 08:22	07/27/21 18:13	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.35**	**J**	5.00	0.967	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Molybdenum	ND		0.500	0.451	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Nickel	**1.33**		0.500	0.429	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Selenium	ND		5.00	1.85	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Silver	ND		1.00	0.225	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Thallium	ND		5.00	1.48	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Vanadium	**4.84**		1.00	0.172	mg/Kg		07/27/21 08:22	07/27/21 18:13	1
Zinc	**6.23**	**J**	10.0	5.11	mg/Kg		07/27/21 08:22	07/27/21 18:13	1

Client Sample ID: B7-0.5
Date Collected: 07/22/21 12:23
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.87	1.30	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Arsenic	ND		2.39	2.17	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Barium	**6.04**		0.478	0.212	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Beryllium	**0.260**		0.239	0.164	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Cadmium	**0.231**	**J**	0.478	0.193	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Chromium	**1.03**		0.957	0.168	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Cobalt	**1.12**		0.957	0.218	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Copper	**2.13**		0.957	0.485	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Lead	**0.955**	**J**	4.78	0.925	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Molybdenum	ND		0.478	0.431	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Nickel	**1.23**		0.478	0.411	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Selenium	ND		4.78	1.77	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Silver	ND		0.957	0.216	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Thallium	ND		4.78	1.42	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Vanadium	**5.03**		0.957	0.164	mg/Kg		07/27/21 08:22	07/27/21 18:23	1
Zinc	**6.10**	**J**	9.57	4.89	mg/Kg		07/27/21 08:22	07/27/21 18:23	1

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.90	1.31	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Arsenic	ND		2.42	2.19	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Barium	**4.11**		0.483	0.214	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Beryllium	**0.173**	**J**	0.242	0.165	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Cadmium	ND		0.483	0.195	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Chromium	**0.654**	**J**	0.966	0.170	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Cobalt	**0.671**	**J**	0.966	0.220	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Copper	**1.16**		0.966	0.490	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Lead	ND		4.83	0.934	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Molybdenum	ND		0.483	0.435	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Nickel	**0.722**		0.483	0.415	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Selenium	ND		4.83	1.79	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Silver	ND		0.966	0.218	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Thallium	ND		4.83	1.43	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Vanadium	**3.44**		0.966	0.166	mg/Kg		07/27/21 08:22	07/27/21 18:25	1
Zinc	ND		9.66	4.94	mg/Kg		07/27/21 08:22	07/27/21 18:25	1

Method: 6010B - Metals (ICP)

Client Sample ID: B8-0.5
Date Collected: 07/22/21 12:46
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.99	1.35	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Arsenic	ND		2.49	2.25	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Barium	**7.62**		0.498	0.221	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Beryllium	**0.291**		0.249	0.170	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Cadmium	**0.257**	**J**	0.498	0.201	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Chromium	**1.36**		0.995	0.175	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Cobalt	**1.41**		0.995	0.226	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Copper	**2.63**		0.995	0.505	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Lead	**1.16**	**J**	4.98	0.962	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Molybdenum	ND		0.498	0.448	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Nickel	**1.61**		0.498	0.427	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Selenium	ND		4.98	1.84	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Silver	ND		0.995	0.224	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Thallium	ND		4.98	1.47	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Vanadium	**6.52**		0.995	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:27	1
Zinc	**8.59**	**J**	9.95	5.09	mg/Kg		07/27/21 08:22	07/27/21 18:27	1

Client Sample ID: B8-5
Date Collected: 07/22/21 12:49
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-43
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.00	1.36	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Arsenic	ND		2.50	2.26	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Barium	**6.82**		0.500	0.222	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Beryllium	**0.264**		0.250	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Cadmium	**0.220**	**J**	0.500	0.202	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Chromium	**1.38**		1.00	0.176	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Cobalt	**1.22**		1.00	0.227	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Copper	**2.55**		1.00	0.507	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Lead	**1.01**	**J**	5.00	0.967	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Molybdenum	ND		0.500	0.451	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Nickel	**1.60**		0.500	0.429	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Selenium	ND		5.00	1.85	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Silver	ND		1.00	0.225	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Thallium	ND		5.00	1.48	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Vanadium	**6.30**		1.00	0.172	mg/Kg		07/27/21 08:22	07/27/21 18:29	1
Zinc	**7.22**	**J**	10.0	5.11	mg/Kg		07/27/21 08:22	07/27/21 18:29	1

Client Sample ID: B9-0.5
Date Collected: 07/22/21 13:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.93	1.32	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Arsenic	ND		2.44	2.21	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Barium	**8.47**		0.488	0.216	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Beryllium	**0.286**		0.244	0.167	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Cadmium	**0.282**	**J**	0.488	0.197	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Chromium	**1.41**		0.976	0.171	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Cobalt	**1.54**		0.976	0.222	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Copper	**2.59**		0.976	0.495	mg/Kg		07/27/21 08:22	07/27/21 18:32	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: B9-0.5
Date Collected: 07/22/21 13:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.33**	**J**	4.88	0.943	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Molybdenum	ND		0.488	0.440	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Nickel	**1.70**		0.488	0.419	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Selenium	ND		4.88	1.81	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Silver	ND		0.976	0.220	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Thallium	ND		4.88	1.45	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Vanadium	**6.73**		0.976	0.167	mg/Kg		07/27/21 08:22	07/27/21 18:32	1
Zinc	**7.40**	**J**	9.76	4.99	mg/Kg		07/27/21 08:22	07/27/21 18:32	1

Client Sample ID: B9-5
Date Collected: 07/22/21 13:22
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-47
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.88	1.30	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Arsenic	ND		2.40	2.18	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Barium	**9.17**		0.481	0.213	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Beryllium	**0.327**		0.240	0.164	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Cadmium	**0.308**	**J**	0.481	0.194	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Chromium	**1.73**		0.962	0.169	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Cobalt	**1.78**		0.962	0.219	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Copper	**3.38**		0.962	0.488	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Lead	**1.52**	**J**	4.81	0.930	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Molybdenum	ND		0.481	0.433	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Nickel	**1.96**		0.481	0.413	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Selenium	ND		4.81	1.78	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Silver	ND		0.962	0.217	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Thallium	ND		4.81	1.43	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Vanadium	**8.12**		0.962	0.165	mg/Kg		07/27/21 08:22	07/27/21 18:34	1
Zinc	**10.3**		9.62	4.92	mg/Kg		07/27/21 08:22	07/27/21 18:34	1

Client Sample ID: B10-0.5
Date Collected: 07/22/21 13:02
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-50
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.09	1.40	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Arsenic	ND		2.58	2.33	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Barium	**8.13**		0.515	0.229	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Beryllium	**0.310**		0.258	0.176	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Cadmium	**0.250**	**J**	0.515	0.208	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Chromium	**1.44**		1.03	0.181	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Cobalt	**1.43**		1.03	0.234	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Copper	**2.73**		1.03	0.523	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Lead	ND		5.15	0.997	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Molybdenum	ND		0.515	0.464	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Nickel	**1.82**		0.515	0.443	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Selenium	ND		5.15	1.91	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Silver	ND		1.03	0.232	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Thallium	ND		5.15	1.53	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Vanadium	**7.00**		1.03	0.177	mg/Kg		07/27/21 08:22	07/27/21 18:36	1
Zinc	**8.17**	**J**	10.3	5.27	mg/Kg		07/27/21 08:22	07/27/21 18:36	1

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Method: 6010B - Metals (ICP)

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.05	1.38	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Arsenic	ND		2.54	2.30	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Barium	**13.2**		0.508	0.225	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Beryllium	**0.242**	**J**	0.254	0.174	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Cadmium	**0.445**	**J**	0.508	0.205	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Chromium	**4.10**		1.02	0.178	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Cobalt	**2.38**		1.02	0.231	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Copper	**4.76**		1.02	0.515	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Lead	**1.42**	**J**	5.08	0.982	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Molybdenum	ND		0.508	0.457	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Nickel	**3.46**		0.508	0.436	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Selenium	ND		5.08	1.88	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Silver	ND		1.02	0.229	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Thallium	ND		5.08	1.50	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Vanadium	**8.45**		1.02	0.174	mg/Kg		07/27/21 08:22	07/27/21 18:38	1
Zinc	**17.1**		10.2	5.19	mg/Kg		07/27/21 08:22	07/27/21 18:38	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B6-0.5
Date Collected: 07/21/21 15:27
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0232	J	0.0820	0.0133	mg/Kg		07/27/21 07:04	07/27/21 14:36	1

Client Sample ID: B6-5
Date Collected: 07/21/21 15:30
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0178	J	0.0847	0.0137	mg/Kg		07/27/21 07:04	07/27/21 14:45	1

Client Sample ID: B5-0.5
Date Collected: 07/21/21 14:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0214	J	0.0877	0.0142	mg/Kg		07/27/21 07:04	07/27/21 14:47	1

Client Sample ID: B5-5
Date Collected: 07/21/21 15:51
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0862	0.0140	mg/Kg		07/27/21 07:04	07/27/21 14:49	1

Client Sample ID: B1-0.5
Date Collected: 07/21/21 13:40
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-10
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0292	J	0.0820	0.0133	mg/Kg		07/27/21 07:04	07/27/21 14:51	1

Client Sample ID: B1-5
Date Collected: 07/22/21 11:12
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-11
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0254	J	0.0833	0.0135	mg/Kg		07/27/21 07:04	07/27/21 14:52	1

Client Sample ID: B11-0.5
Date Collected: 07/22/21 08:17
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-14
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0222	J	0.0847	0.0137	mg/Kg		07/27/21 07:04	07/27/21 14:54	1

Client Sample ID: B11-5
Date Collected: 07/22/21 08:20
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-15
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0877	0.0142	mg/Kg		07/27/21 07:04	07/27/21 14:56	1

Client Sample ID: B25-0.5
Date Collected: 07/22/21 09:04
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65130-18
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0862	0.0140	mg/Kg		07/27/21 07:04	07/27/21 14:58	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B25-5
Date Collected: 07/22/21 09:08
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-19
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0820	0.0133	mg/Kg		07/27/21 07:04	07/27/21 15:04	1

Client Sample ID: B26-0.5
Date Collected: 07/22/21 09:28
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-22
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0174	J	0.0833	0.0135	mg/Kg		07/27/21 07:04	07/27/21 15:05	1

Client Sample ID: B26-5
Date Collected: 07/22/21 09:30
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-23
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0178	J	0.0794	0.0129	mg/Kg		07/27/21 07:04	07/27/21 15:07	1

Client Sample ID: B27-0.5
Date Collected: 07/22/21 10:03
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-26
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0312	J	0.0847	0.0137	mg/Kg		07/27/21 07:04	07/27/21 15:09	1

Client Sample ID: B27-5
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-27
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0459	J	0.0862	0.0140	mg/Kg		07/27/21 07:04	07/27/21 15:11	1

Client Sample ID: B4-0.5
Date Collected: 07/21/21 13:05
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-30
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0186	J	0.0820	0.0133	mg/Kg		07/27/21 07:04	07/27/21 15:13	1

Client Sample ID: B4-5
Date Collected: 07/22/21 11:53
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-31
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0355	J	0.0877	0.0142	mg/Kg		07/27/21 07:04	07/27/21 15:15	1

Client Sample ID: B2-0.5
Date Collected: 07/22/21 10:44
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-34
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0196	J	0.0847	0.0137	mg/Kg		07/27/21 07:04	07/27/21 15:17	1

Client Sample ID: B2-5
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-35
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0211	J	0.0820	0.0133	mg/Kg		07/27/21 07:04	07/27/21 15:19	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: B7-0.5
Date Collected: 07/22/21 12:23
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-38
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0806	0.0131	mg/Kg		07/27/21 07:04	07/27/21 15:20	1

Client Sample ID: B7-5
Date Collected: 07/22/21 12:27
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-39
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		07/27/21 07:04	07/27/21 15:26	1

Client Sample ID: B8-0.5
Date Collected: 07/22/21 12:46
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-42
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0847	0.0137	mg/Kg		07/27/21 07:08	07/27/21 17:04	1

Client Sample ID: B8-5
Date Collected: 07/22/21 12:49
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-43
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0820	0.0133	mg/Kg		07/27/21 07:08	07/27/21 16:17	1

Client Sample ID: B9-0.5
Date Collected: 07/22/21 13:20
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-46
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		07/27/21 07:08	07/27/21 16:19	1

Client Sample ID: B9-5
Date Collected: 07/22/21 13:22
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-47
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0794	0.0129	mg/Kg		07/27/21 07:08	07/27/21 16:21	1

Client Sample ID: B10-0.5
Date Collected: 07/22/21 13:02
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-50
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0847	0.0137	mg/Kg		07/27/21 07:08	07/27/21 16:23	1

Client Sample ID: B10-5
Date Collected: 07/22/21 13:07
Date Received: 07/22/21 17:00
Lab Sample ID: 570-65130-51
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0862	0.0140	mg/Kg		07/27/21 07:08	07/27/21 17:19	1

Surrogate Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(76-120)	(47-142)	(64-141)	(80-120)
570-65130-3	B6-5	93	95	103	97
570-65130-7	B5-5	91	94	101	98
570-65130-11	B1-5	92	96	103	97
570-65130-15	B11-5	92	96	100	98
570-65130-19	B25-5	93	95	103	97
570-65130-23	B26-5	93	96	95	100
570-65130-23 MS	B26-5	94	100	97	101
570-65130-23 MSD	B26-5	93	99	95	101
570-65130-27	B27-5	93	95	94	102
570-65130-31	B4-5	92	96	93	102
570-65130-35	B2-5	90	97	93	102
570-65130-39	B7-5	93	95	93	102
570-65130-43	B8-5	94	98	95	100
570-65130-47	B9-5	93	96	91	100
570-65130-51	B10-5	94	96	94	102
570-65158-A-2-G MS	Matrix Spike	96	96	89	100
570-65158-A-2-H MSD	Matrix Spike Duplicate	97	96	88	100
LCS 570-166054/1-A	Lab Control Sample	95	96	87	101
LCS 570-166237/1-A	Lab Control Sample	94	99	91	101
LCSD 570-166054/2-A	Lab Control Sample Dup	95	95	87	101
LCSD 570-166237/2-A	Lab Control Sample Dup	93	99	91	101
MB 570-166054/3-A	Method Blank	94	88	91	96
MB 570-166237/3-A	Method Blank	94	94	93	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		OTCSN1
Lab Sample ID	Client Sample ID	(60-138)
570-64569-A-1-D MS	Matrix Spike	90
570-64569-A-1-E MSD	Matrix Spike Duplicate	103
570-65130-3	B6-5	91
570-65130-7	B5-5	61
570-65130-11	B1-5	64
570-65130-15	B11-5	101
570-65130-19	B25-5	95
570-65130-23	B26-5	85
570-65130-27	B27-5	96
570-65130-31	B4-5	95
570-65130-35 - DL	B2-5	100
570-65130-39 - RA	B7-5	106
570-65130-43	B8-5	103
570-65130-47	B9-5	100

Surrogate Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-65130-51	B10-5	101
LCS 570-166901/2-A	Lab Control Sample	93
LCSD 570-166901/3-A	Lab Control Sample Dup	103
MB 570-166901/1-A	Method Blank	97

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (38-148)	DCB1 (37-151)
570-65130-2	B6-0.5	73	82
570-65130-2 MSD	B6-0.5	68	81
570-65130-6	B5-0.5	73	71
570-65130-10	B1-0.5	80	82
570-65130-14	B11-0.5	65	67
570-65130-18	B25-0.5	72	77
570-65130-22	B26-0.5	70	73
570-65130-26	B27-0.5	79	82
570-65130-30	B4-0.5	64	66
570-65130-34	B2-0.5	59	62
570-65130-38	B7-0.5	64	71 p
570-65130-42	B8-0.5	74	86 p
570-65130-46	B9-0.5	80	64
570-65130-50	B10-0.5	80	72
LCS 570-166416/2-A	Lab Control Sample	95	97
LCSD 570-166416/3-A	Lab Control Sample Dup	92	97
MB 570-166416/1-A	Method Blank	87	104

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX2 (38-148)	DCB1 (37-151)
570-65130-2 MS	B6-0.5	70	76

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: Citadel Environmental Services Inc
Job ID: 570-65130-1
Project/Site: East 118th Street

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX1 (25-126)	DCB1 (20-155)								
570-65130-1	B3-0.5	73	62								
570-65223-A-1-A MS	Matrix Spike	73	68								
570-65223-A-1-B MSD	Matrix Spike Duplicate	76	67								
LCS 570-166163/4-A	Lab Control Sample	85	90								
LCSD 570-166163/5-A	Lab Control Sample Dup	77	88								
MB 570-166163/1-A	Method Blank	88	90								

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-166053/A-x
MatriP: Solid
x nalNsis Batch: 1660AF

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166053

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Acetone	ND		20	9.8	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Benzene	ND		0.99	0.26	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Bromobenzene	ND		0.99	0.21	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Bromodichloromethane	ND		0.99	0.16	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Bromomethane	ND		20	6.5	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Carbon disulfide	ND		9.9	0.40	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Carbon tetrachloride	ND		0.99	0.30	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Chlorobenzene	ND		0.99	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Chloroform	ND		0.99	0.58	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
2-Chlorotoluene	ND		0.99	0.25	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
4-Chlorotoluene	ND		0.99	0.24	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
cis-1,2-Dichloroethene	ND		0.99	0.33	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
cis-1,3-Dichloropropene	ND		0.99	0.35	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2-Dibromo-3-Chloropropane	ND		9.9	6.7	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2-Dibromoethane	ND		0.99	0.20	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Dibromomethane	ND		0.99	0.30	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,3-Dichlorobenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,4-Dichlorobenzene	ND		0.99	0.30	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1-Dichloroethane	ND		0.99	0.28	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2-Dichloroethane	ND		0.99	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1-Dichloroethene	ND		0.99	0.26	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2-Dichloropropane	ND		0.99	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,3-Dichloropropane	ND		0.99	0.29	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1-Dichloropropene	ND		2.0	0.38	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Di-isopropyl ether (DIPE)	ND		0.99	0.50	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Ethanol	ND		250	65	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Ethylbenzene	ND		0.99	0.20	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Ethyl-t-butyl ether (ETBE)	ND		0.99	0.23	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
2-Hexanone	ND		20	3.0	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Isopropylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Methylene Chloride	ND		9.9	3.1	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Naphthalene	ND		9.9	5.2	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
n-Butylbenzene	ND		0.99	0.21	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
o-Xylene	ND		0.99	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
p-Isopropyltoluene	ND		0.99	0.69	ug/Kg		07/23/21 08:41	07/23/21 11:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166053/A-x
Matrix: Solid
Analysis Batch: 166053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.99	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Styrene	ND		0.99	0.69	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Tert-amyl-methyl ether (TAME)	ND		0.99	0.19	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
tert-Butyl alcohol (TBA)	ND		20	6.9	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
tert-Butylbenzene	ND		0.99	0.25	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1,1,2-Tetrachloroethane	ND		0.99	0.29	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Tetrachloroethene	ND		0.99	0.22	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Toluene	ND		0.99	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
trans-1,2-Dichloroethene	ND		0.99	0.30	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2,3-Trichlorobenzene	ND		2.0	0.99	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1,1-Trichloroethane	ND		0.99	0.23	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1,2-Trichloroethane	ND		0.99	0.46	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Trichloroethene	ND		2.0	0.38	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Trichlorofluoromethane	ND		9.9	0.27	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9	0.46	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Vinyl acetate	ND		9.9	3.9	ug/Kg		07/23/21 08:41	07/23/21 11:09	1
Vinyl chloride	ND		0.99	0.38	ug/Kg		07/23/21 08:41	07/23/21 11:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*87 - 612*	*2801/ 016 2: 346*	*2801/ 016 663 29*	*6*
Dibromofluoromethane (Surr)	*: :*		*48 - 641*	*2801/ 016 2: 346*	*2801/ 016 663 29*	*6*
6,1-Dichloroethane-d4 (Surr)	*96*		*74 - 646*	*2801/ 016 2: 346*	*2801/ 016 663 29*	*6*
Toluene-d: (Surr)	*97*		*: 2 - 612*	*2801/ 016 2: 346*	*2801/ 016 663 29*	*6*

Lab Sample ID: LCS 570-166053/1-x
Matrix: Solid
Analysis Batch: 166053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 166053

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	. Rec	. Rec9 Limits		
Benzene			50.1	46.20		ug/Kg		92	76 - 120		
Carbon tetrachloride			50.1	42.97		ug/Kg		86	68 - 132		
Chlorobenzene			50.1	47.20		ug/Kg		94	80 - 120		
1,2-Dibromoethane			50.1	48.82		ug/Kg		97	80 - 120		
1,2-Dichlorobenzene			50.1	48.65		ug/Kg		97	80 - 120		
1,2-Dichloroethane			50.1	43.93		ug/Kg		88	76 - 126		
1,1-Dichloroethene			50.1	41.47		ug/Kg		83	68 - 120		
Di-isopropyl ether (DIPE)			50.1	49.66		ug/Kg		99	69 - 123		
Ethanol			501	603.8		ug/Kg		121	46 - 152		
Ethylbenzene			50.1	46.84		ug/Kg		93	80 - 120		
Ethyl-t-butyl ether (ETBE)			50.1	46.06		ug/Kg		92	69 - 121		
Methyl-t-Butyl Ether (MTBE)			50.1	42.27		ug/Kg		84	70 - 120		
m,p-Xylene			100	93.66		ug/Kg		93	75 - 122		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166053/1-x
MatriP: Solid
x nalNsis Batch: 1660AF

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166053

x nalNte			Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits		
o-Xylene			50.1	46.98		ug/Kg		94	76 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*87 - 612*
Dibromofluoromethane (Surr)	*97*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*: 8*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Lab Sample ID: LCSD 570-166053/2-x
MatriP: Solid
x nalNsis Batch: 1660AF

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166053

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Benzene			51.1	47.18		ug/Kg		92	76 - 120	2	20
Carbon tetrachloride			51.1	43.72		ug/Kg		86	68 - 132	2	20
Chlorobenzene			51.1	48.16		ug/Kg		94	80 - 120	2	20
1,2-Dibromoethane			51.1	50.65		ug/Kg		99	80 - 120	4	20
1,2-Dichlorobenzene			51.1	49.77		ug/Kg		97	80 - 120	2	20
1,2-Dichloroethane			51.1	45.00		ug/Kg		88	76 - 126	2	20
1,1-Dichloroethene			51.1	42.26		ug/Kg		83	68 - 120	2	20
Di-isopropyl ether (DIPE)			51.1	50.94		ug/Kg		100	69 - 123	3	20
Ethanol			511	470.4		ug/Kg		92	46 - 152	25	30
Ethylbenzene			51.1	47.86		ug/Kg		94	80 - 120	2	20
Ethyl-t-butyl ether (ETBE)			51.1	47.83		ug/Kg		94	69 - 121	4	20
Methyl-t-Butyl Ether (MTBE)			51.1	43.73		ug/Kg		86	70 - 120	3	20
m,p-Xylene			102	95.33		ug/Kg		93	75 - 122	2	20
o-Xylene			51.1	47.77		ug/Kg		93	76 - 125	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*87 - 612*
Dibromofluoromethane (Surr)	*95*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*: 8*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Lab Sample ID: MB 570-1662A7/A-x
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Acetone	ND		20	9.8	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Benzene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Bromobenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Bromodichloromethane	ND		1.0	0.16	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Bromoform	ND		5.0	1.3	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Bromomethane	ND		20	6.6	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
2-Butanone	ND		20	4.5	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Carbon disulfide	ND		10	0.40	ug/Kg		07/23/21 17:17	07/23/21 18:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166207/4-x
Matrix: Solid
Analysis Batch: 166203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Chloroethane	ND		2.0	1.5	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Chloroform	ND		1.0	0.59	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Chloromethane	ND		20	1.5	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Dibromomethane	ND		1.0	0.30	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1-Dichloroethene	ND		1.0	0.26	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,3-Dichloropropane	ND		1.0	0.29	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Ethanol	ND		250	66	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
2-Hexanone	ND		20	3.1	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Isopropylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Methylene Chloride	ND		10	3.1	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Naphthalene	ND		10	5.2	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
N-Propylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
o-Xylene	ND		1.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
p-Isopropyltoluene	ND		1.0	0.70	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
sec-Butylbenzene	ND		1.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Styrene	ND		1.0	0.70	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Toluene	ND		1.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		07/23/21 17:17	07/23/21 18:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-1662A7/A-x
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNued	Dil zac
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Trichloroethene	ND		2.0	0.39	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
1,3,5-Trimethylbenzene	ND		2.0	0.60	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Vinyl acetate	ND		10	3.9	ug/Kg		07/23/21 17:17	07/23/21 18:40	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		07/23/21 17:17	07/23/21 18:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*87 - 612*	*2801/ 016 6835 8*	*2801/ 016 6: 342*	*6*
Dibromofluoromethane (Surr)	*94*		*48 - 641*	*2801/ 016 6835 8*	*2801/ 016 6: 342*	*6*
6,1-Dichloroethane-d4 (Surr)	*9/*		*74 - 646*	*2801/ 016 6835 8*	*2801/ 016 6: 342*	*6*
Toluene-d: (Surr)	*99*		*: 2 - 612*	*2801/ 016 6835 8*	*2801/ 016 6: 342*	*6*

Lab Sample ID: LCS 570-1662A7/1-x
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte	Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits
Benzene	50.0	53.15		ug/Kg		106	76 - 120
Carbon tetrachloride	50.0	46.80		ug/Kg		94	68 - 132
Chlorobenzene	50.0	47.41		ug/Kg		95	80 - 120
1,2-Dibromoethane	50.0	50.28		ug/Kg		101	80 - 120
1,2-Dichlorobenzene	50.0	53.54		ug/Kg		107	80 - 120
1,2-Dichloroethane	50.0	46.64		ug/Kg		93	76 - 126
1,1-Dichloroethene	50.0	48.23		ug/Kg		96	68 - 120
Di-isopropyl ether (DIPE)	50.0	48.21		ug/Kg		96	69 - 123
Ethanol	500	606.4		ug/Kg		121	46 - 152
Ethylbenzene	50.0	48.71		ug/Kg		97	80 - 120
Ethyl-t-butyl ether (ETBE)	50.0	47.14		ug/Kg		94	69 - 121
Methyl-t-Butyl Ether (MTBE)	50.0	50.41		ug/Kg		101	70 - 120
m,p-Xylene	100	95.57		ug/Kg		96	75 - 122
o-Xylene	50.0	48.79		ug/Kg		98	76 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*87 - 612*
Dibromofluoromethane (Surr)	*99*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*96*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-1662A7/2-x
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Benzene			49.4	52.46		ug/Kg		106	76 - 120	1	20
Carbon tetrachloride			49.4	46.54		ug/Kg		94	68 - 132	1	20
Chlorobenzene			49.4	47.17		ug/Kg		95	80 - 120	1	20
1,2-Dibromoethane			49.4	49.41		ug/Kg		100	80 - 120	2	20
1,2-Dichlorobenzene			49.4	53.54		ug/Kg		108	80 - 120	0	20
1,2-Dichloroethane			49.4	46.11		ug/Kg		93	76 - 126	1	20
1,1-Dichloroethene			49.4	47.98		ug/Kg		97	68 - 120	1	20
Di-isopropyl ether (DIPE)			49.4	47.42		ug/Kg		96	69 - 123	2	20
Ethanol			494	610.4		ug/Kg		124	46 - 152	1	30
Ethylbenzene			49.4	48.17		ug/Kg		97	80 - 120	1	20
Ethyl-t-butyl ether (ETBE)			49.4	46.21		ug/Kg		94	69 - 121	2	20
Methyl-t-Butyl Ether (MTBE)			49.4	49.67		ug/Kg		101	70 - 120	1	20
m,p-Xylene			98.8	95.31		ug/Kg		96	75 - 122	0	20
o-Xylene			49.4	48.09		ug/Kg		97	76 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*9/*		*87 - 612*
Dibromofluoromethane (Surr)	*99*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*96*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Lab Sample ID: 570-651A0-2A MS
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: B26-5
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MS Result	MS Quali%er	f nit	D	. Rec	. Rec9 Limits
Benzene	ND		50.6	53.60		ug/Kg		106	70 - 125
Carbon tetrachloride	ND		50.6	48.29		ug/Kg		95	60 - 130
Chlorobenzene	ND		50.6	47.82		ug/Kg		94	65 - 125
1,2-Dibromoethane	ND		50.6	51.31		ug/Kg		101	65 - 125
1,2-Dichlorobenzene	ND		50.6	52.62		ug/Kg		104	47 - 130
1,2-Dichloroethane	ND		50.6	47.82		ug/Kg		94	66 - 127
1,1-Dichloroethene	ND		50.6	50.49		ug/Kg		100	60 - 125
Di-isopropyl ether (DIPE)	ND		50.6	48.91		ug/Kg		97	62 - 125
Ethanol	ND		506	545.4		ug/Kg		108	21 - 168
Ethylbenzene	ND		50.6	49.83		ug/Kg		98	64 - 125
Ethyl-t-butyl ether (ETBE)	ND		50.6	47.69		ug/Kg		94	61 - 125
Methyl-t-Butyl Ether (MTBE)	ND		50.6	51.58		ug/Kg		102	61 - 125
m,p-Xylene	ND		101	97.76		ug/Kg		97	60 - 125
o-Xylene	ND		50.6	49.57		ug/Kg		98	59 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*87 - 612*
Dibromofluoromethane (Surr)	*622*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*98*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-651A0-2A MSD
MatriP: Solid
x nalNsis Batch: 166203

Client Sample ID: B26-5
Trep yNpe: yotal/4 x
Trep Batch: 1662A7

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Benzene	ND		48.5	49.74		ug/Kg		102	70 - 125	7	20
Carbon tetrachloride	ND		48.5	45.28		ug/Kg		93	60 - 130	6	20
Chlorobenzene	ND		48.5	43.24		ug/Kg		89	65 - 125	10	22
1,2-Dibromoethane	ND		48.5	46.79		ug/Kg		96	65 - 125	9	21
1,2-Dichlorobenzene	ND		48.5	47.76		ug/Kg		98	47 - 130	10	29
1,2-Dichloroethane	ND		48.5	43.04		ug/Kg		89	66 - 127	11	20
1,1-Dichloroethene	ND		48.5	47.33		ug/Kg		97	60 - 125	6	20
Di-isopropyl ether (DIPE)	ND		48.5	44.16		ug/Kg		91	62 - 125	10	20
Ethanol	ND		485	574.9		ug/Kg		118	21 - 168	5	40
Ethylbenzene	ND		48.5	44.87		ug/Kg		92	64 - 125	10	22
Ethyl-t-butyl ether (ETBE)	ND		48.5	43.00		ug/Kg		89	61 - 125	10	20
Methyl-t-Butyl Ether (MTBE)	ND		48.5	47.02		ug/Kg		97	61 - 125	9	20
m,p-Xylene	ND		97.1	89.72		ug/Kg		92	60 - 125	9	24
o-Xylene	ND		48.5	44.94		ug/Kg		93	59 - 128	10	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*9/*		*87 - 612*
Dibromofluoromethane (Surr)	*99*		*48 - 641*
6,1-Dichloroethane-d4 (Surr)	*95*		*74 - 646*
Toluene-d: (Surr)	*626*		*: 2 - 612*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-166F01/1-x
MatriP: Solid
x nalNsis Batch: 166808

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166F01

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNued	Dil zac
C6 as C6	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C7 as C7	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C8 as C8	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C9-C10	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C11-C12	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C13-C14	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C15-C16	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C17-C18	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C19-C20	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C21-C22	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C23-C24	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C25-C28	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C29-C32	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C33-C36	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C37-C40	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C41-C44	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1
C6-C44	ND		5.0	3.8	mg/Kg		07/27/21 14:39	07/28/21 03:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*98*		*72 - 6/ :*	*280180l6 643'9*	*280l: 0l6 2/ 35/*	*6*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCS 570-166F01/2-x
MatriP: Solid
x nalNsis Batch: 166808

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166F01

x nalNte			Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits		
Diesel Range Organics [C10-C28]			400	444.0		mg/Kg		111	80 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*9/*		*72 - 6/ :*

Lab Sample ID: LCSD 570-166F01/A-x
MatriP: Solid
x nalNsis Batch: 166808

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166F01

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Diesel Range Organics [C10-C28]			400	442.2		mg/Kg		111	80 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*62/*		*72 - 6/ :*

Method: 8081x - Organochlorine Testicides (GC)

Lab Sample ID: MB 570-166316/1-x
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
4,4'-DDD	ND		5.0	0.99	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
4,4'-DDE	ND		5.0	0.54	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
4,4'-DDT	ND		5.0	0.94	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Aldrin	ND		5.0	0.72	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
alpha-BHC	ND		5.0	3.0	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
alpha-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
beta-BHC	ND		5.0	3.7	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Chlordane	ND		25	2.4	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
delta-BHC	ND		5.0	1.6	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Dieldrin	ND		5.0	0.25	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endosulfan I	ND		5.0	1.1	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endosulfan II	ND		5.0	0.31	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endosulfan sulfate	ND		5.0	0.40	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endrin	ND		5.0	0.33	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endrin aldehyde	ND		5.0	1.8	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Endrin ketone	ND		5.0	0.48	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
gamma-Chlordane	ND		5.0	1.3	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
gamma-BHC	ND		5.0	0.62	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Heptachlor	ND		5.0	0.89	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Heptachlor epoxide	ND		5.0	0.67	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Methoxychlor	ND		5.0	0.81	ug/Kg		07/26/21 08:15	07/27/21 12:03	1
Toxaphene	ND		25	20	ug/Kg		07/26/21 08:15	07/27/21 12:03	1

Method: 8081x - Organochlorine Testicides (GC) (Continued)

Lab Sample ID: MB 570-166316/1-x
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166316

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	: 8		/ : - 64:	280/70/6 2: 365	280/80/6 613 2/	6
DCB Decachlorobiphenyl (Surr)	624		/ 8 - 656	280/70/6 2: 365	280/80/6 613 2/	6

Lab Sample ID: LCS 570-166316/2-x
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte	Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits
4,4'-DDD	25.0	27.27		ug/Kg		109	54 - 154
4,4'-DDE	25.0	23.49		ug/Kg		94	51 - 149
4,4'-DDT	25.0	13.68		ug/Kg		55	39 - 152
Aldrin	25.0	22.44		ug/Kg		90	52 - 138
alpha-BHC	25.0	22.62		ug/Kg		90	51 - 140
alpha-Chlordane	25.0	22.24		ug/Kg		89	53 - 141
beta-BHC	25.0	21.75		ug/Kg		87	53 - 141
delta-BHC	25.0	22.68		ug/Kg		91	20 - 132
Dieldrin	25.0	22.77		ug/Kg		91	52 - 144
Endosulfan I	25.0	22.72		ug/Kg		91	49 - 139
Endosulfan II	25.0	21.99		ug/Kg		88	51 - 150
Endosulfan sulfate	25.0	22.30		ug/Kg		89	45 - 139
Endrin	25.0	22.55		ug/Kg		90	53 - 151
Endrin aldehyde	25.0	23.24		ug/Kg		93	31 - 146
Endrin aldehyde	25.0	23.47		ug/Kg		94	31 - 146
gamma-Chlordane	25.0	22.59		ug/Kg		90	46 - 156
gamma-BHC	25.0	22.33		ug/Kg		89	53 - 141
Heptachlor	25.0	22.10		ug/Kg		88	52 - 144
Heptachlor epoxide	25.0	22.74		ug/Kg		91	54 - 141
Methoxychlor	25.0	14.06		ug/Kg		56	47 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	95		/ : - 64:
DCB Decachlorobiphenyl (Surr)	98		/ 8 - 656

Lab Sample ID: LCSD 570-166316/A-x
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte	Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
4,4'-DDD	25.0	27.84		ug/Kg		111	54 - 154	2	30
4,4'-DDE	25.0	23.79		ug/Kg		95	51 - 149	1	28
4,4'-DDT	25.0	13.48		ug/Kg		54	39 - 152	1	31
Aldrin	25.0	22.21		ug/Kg		89	52 - 138	1	30
alpha-BHC	25.0	22.70		ug/Kg		91	51 - 140	0	29
alpha-Chlordane	25.0	22.40		ug/Kg		90	53 - 141	1	28
beta-BHC	25.0	22.03		ug/Kg		88	53 - 141	1	29
delta-BHC	25.0	23.04		ug/Kg		92	20 - 132	2	40
Dieldrin	25.0	23.05		ug/Kg		92	52 - 144	1	28
Endosulfan I	25.0	23.06		ug/Kg		92	49 - 139	1	28

Method: 8081x - Organochlorine Testicides (GC) (Continued)

Lab Sample ID: LCSD 570-166316/A-x
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Endosulfan II			25.0	22.39		ug/Kg		90	51 - 150	2	29
Endosulfan sulfate			25.0	22.79		ug/Kg		91	45 - 139	2	30
Endrin			25.0	22.62		ug/Kg		90	53 - 151	0	29
Endrin aldehyde			25.0	23.16		ug/Kg		93	31 - 146	0	40
Endrin aldehyde			25.0	23.58		ug/Kg		94	31 - 146	1	40
gamma-Chlordane			25.0	22.76		ug/Kg		91	46 - 156	1	39
gamma-BHC			25.0	22.42		ug/Kg		90	53 - 141	0	29
Heptachlor			25.0	22.19		ug/Kg		89	52 - 144	0	29
Heptachlor epoxide			25.0	22.89		ug/Kg		92	54 - 141	1	29
Methoxychlor			25.0	14.34		ug/Kg		57	47 - 148	2	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*91*		*/ : - 64:*
DCB Decachlorobiphenyl (Surr)	*98*		*/ 8 - 656*

Lab Sample ID: 570-651A0-2 MS
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: B6-095
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MS Result	MS Quali%er	f nit	D	. Rec	. Rec9 Limits
4,4'-DDD	ND		24.8	17.41		ug/Kg		70	27 - 144
4,4'-DDE	0.88	J	24.8	19.13		ug/Kg		74	28 - 141
4,4'-DDT	2.0	J	24.8	19.41		ug/Kg		70	10 - 154
Aldrin	ND		24.8	16.45		ug/Kg		66	26 - 125
alpha-BHC	ND		24.8	15.89		ug/Kg		64	24 - 125
alpha-Chlordane	ND		24.8	16.94		ug/Kg		68	17 - 144
beta-BHC	ND		24.8	14.92		ug/Kg		60	28 - 125
delta-BHC	ND		24.8	15.93		ug/Kg		64	10 - 125
Dieldrin	ND		24.8	16.90		ug/Kg		68	19 - 145
Endosulfan I	ND		24.8	15.65		ug/Kg		63	25 - 125
Endosulfan II	ND		24.8	16.24		ug/Kg		66	13 - 142
Endosulfan sulfate	ND		24.8	15.51		ug/Kg		63	14 - 126
Endrin	ND		24.8	17.26		ug/Kg		70	28 - 139
Endrin aldehyde	ND		24.8	18.27		ug/Kg		74	12 - 125
gamma-Chlordane	ND		24.8	16.34		ug/Kg		66	10 - 160
gamma-BHC	ND		24.8	16.23		ug/Kg		66	24 - 125
Heptachlor	ND		24.8	16.62		ug/Kg		67	19 - 127
Heptachlor epoxide	ND		24.8	16.83		ug/Kg		68	33 - 123
Methoxychlor	ND		24.8	17.51		ug/Kg		71	19 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*82*		*/ : - 64:*
DCB Decachlorobiphenyl (Surr)	*87*		*/ 8 - 656*

Method: 8081x - Organochlorine Testicides (GC) (Continued)

Lab Sample ID: 570-651A0-2 MSD
MatriP: Solid
x nalNsis Batch: 1667FA

Client Sample ID: B6-095
Trep yNpe: yotal/4 x
Trep Batch: 166316

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
4,4'-DDD	ND		25.0	18.85		ug/Kg		75	27 - 144	8	40
4,4'-DDE	0.88	J	25.0	19.92		ug/Kg		76	28 - 141	4	32
4,4'-DDT	2.0	J	25.0	19.46		ug/Kg		70	10 - 154	0	40
Aldrin	ND		25.0	16.73		ug/Kg		67	26 - 125	2	40
alpha-BHC	ND		25.0	16.47		ug/Kg		66	24 - 125	4	40
alpha-Chlordane	ND		25.0	17.51		ug/Kg		70	17 - 144	3	40
beta-BHC	ND		25.0	15.47		ug/Kg		62	28 - 125	4	39
delta-BHC	ND		25.0	17.32		ug/Kg		69	10 - 125	8	40
Dieldrin	ND		25.0	17.24		ug/Kg		69	19 - 145	2	39
Endosulfan I	ND		25.0	16.44		ug/Kg		66	25 - 125	5	39
Endosulfan II	ND		25.0	16.84		ug/Kg		67	13 - 142	4	40
Endosulfan sulfate	ND		25.0	16.76		ug/Kg		67	14 - 126	8	38
Endrin	ND		25.0	18.09		ug/Kg		72	28 - 139	5	40
Endrin aldehyde	ND		25.0	20.38		ug/Kg		82	12 - 125	11	40
gamma-Chlordane	ND		25.0	16.55		ug/Kg		66	10 - 160	1	40
gamma-BHC	ND		25.0	16.93		ug/Kg		68	24 - 125	4	40
Heptachlor	ND		25.0	16.93		ug/Kg		68	19 - 127	2	40
Heptachlor epoxide	ND		25.0	16.89		ug/Kg		68	33 - 123	0	34
Methoxychlor	ND		25.0	18.87		ug/Kg		76	19 - 128	7	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*7:*		*/ : - 64:*
DCB Decachlorobiphenyl (Surr)	*: 6*		*/ 8 - 656*

Method: 8082 - TolNchlorinated BiphenNs (TCBs) bN Gas ChromatographN

Lab Sample ID: MB 570-16616A/1-x
MatriP: Solid
x nalNsis Batch: 166365

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 16616A

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Aroclor-1016	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1221	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1232	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1242	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1248	ND		50	39	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1254	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1260	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1262	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 12:16	1
Aroclor-1268	ND		50	25	ug/Kg		07/23/21 13:23	07/26/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*: :*		*15 - 617*	*2801/ 016 6/ 31/*	*2801701 6 613 67*	*6*
DCB Decachlorobiphenyl (Surr)	*92*		*12 - 655*	*2801/ 016 6/ 31/*	*2801701 6 613 67*	*6*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 570-16616A/3-x
Matrix: Solid
Analysis Batch: 166365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16616A

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	%Rec. Limits		
Aroclor-1016			100	104.3		ug/Kg		104	50 - 142		
Aroclor-1260			100	89.85		ug/Kg		90	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*75*		*15 - 617*
DCB Decachlorobiphenyl (Surr)	*92*		*12 - 655*

Lab Sample ID: LCSD 570-16616A/5-x
Matrix: Solid
Analysis Batch: 166365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16616A

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	%Rec. Limits	RTD	RTD Limit
Aroclor-1016			100	96.20		ug/Kg		96	50 - 142	8	30
Aroclor-1260			100	86.89		ug/Kg		87	50 - 150	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*88*		*15 - 617*
DCB Decachlorobiphenyl (Surr)	*75*		*12 - 655*

Method: 6010B - Metals (ICT)

Lab Sample ID: MB 570-166736/1-x
Matrix: Solid
Analysis Batch: 166F0A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.97	1.34	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Arsenic	ND		2.48	2.24	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Barium	ND		0.495	0.219	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Beryllium	ND		0.248	0.169	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Cadmium	ND		0.495	0.200	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Chromium	ND		0.990	0.174	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Cobalt	ND		0.990	0.225	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Copper	ND		0.990	0.502	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Lead	ND		4.95	0.957	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Molybdenum	ND		0.495	0.446	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Nickel	ND		0.495	0.425	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Selenium	ND		4.95	1.83	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Silver	ND		0.990	0.223	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Thallium	ND		4.95	1.47	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Vanadium	ND		0.990	0.170	mg/Kg		07/27/21 07:11	07/27/21 11:54	1
Zinc	ND		9.90	5.06	mg/Kg		07/27/21 07:11	07/27/21 11:54	1

Method: 6010B - Metals (ICT) (Continued)

Lab Sample ID: LCS 570-166736/2-x
MatriP: Solid
x nalNsis Batch: 166F0A

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166736

x nalNte	Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	Rec9 Limits
Antimony	24.4	26.24		mg/Kg		108	80 - 120
Arsenic	24.4	26.50		mg/Kg		109	80 - 120
Barium	24.4	28.26		mg/Kg		116	80 - 120
Beryllium	24.4	25.18		mg/Kg		103	80 - 120
Cadmium	24.4	26.38		mg/Kg		108	80 - 120
Chromium	24.4	26.16		mg/Kg		107	80 - 120
Cobalt	24.4	26.25		mg/Kg		108	80 - 120
Copper	24.4	26.71		mg/Kg		110	80 - 120
Lead	24.4	27.92		mg/Kg		114	80 - 120
Molybdenum	24.4	26.03		mg/Kg		107	80 - 120
Nickel	24.4	25.25		mg/Kg		104	80 - 120
Selenium	24.4	25.44		mg/Kg		104	80 - 120
Silver	12.2	12.39		mg/Kg		102	80 - 120
Thallium	24.4	28.41		mg/Kg		116	80 - 120
Vanadium	24.4	25.46		mg/Kg		104	80 - 120
Zinc	24.4	27.05		mg/Kg		111	80 - 120

Lab Sample ID: LCSD 570-166736/A-x
MatriP: Solid
x nalNsis Batch: 166F0A

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166736

x nalNte	Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	Rec9 Limits	RTD	RTD Limit
Antimony	25.0	26.54		mg/Kg		106	80 - 120	1	20
Arsenic	25.0	26.92		mg/Kg		108	80 - 120	2	20
Barium	25.0	28.46		mg/Kg		114	80 - 120	1	20
Beryllium	25.0	25.06		mg/Kg		100	80 - 120	0	20
Cadmium	25.0	26.95		mg/Kg		108	80 - 120	2	20
Chromium	25.0	26.17		mg/Kg		105	80 - 120	0	20
Cobalt	25.0	26.52		mg/Kg		106	80 - 120	1	20
Copper	25.0	26.93		mg/Kg		108	80 - 120	1	20
Lead	25.0	28.30		mg/Kg		113	80 - 120	1	20
Molybdenum	25.0	26.37		mg/Kg		105	80 - 120	1	20
Nickel	25.0	25.02		mg/Kg		100	80 - 120	1	20
Selenium	25.0	25.93		mg/Kg		104	80 - 120	2	20
Silver	12.5	12.39		mg/Kg		99	80 - 120	0	20
Thallium	25.0	28.67		mg/Kg		115	80 - 120	1	20
Vanadium	25.0	25.45		mg/Kg		102	80 - 120	0	20
Zinc	25.0	27.41		mg/Kg		110	80 - 120	1	20

Lab Sample ID: MB 570-166738/1-x
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Antimony	ND		3.13	1.41	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Arsenic	ND		2.60	2.36	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Barium	ND		0.521	0.231	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Beryllium	ND		0.260	0.178	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Cadmium	ND		0.521	0.210	mg/Kg		07/27/21 08:22	07/27/21 17:36	1

Method: 6010B - Metals (ICT) (Continued)

Lab Sample ID: MB 570-166738/1-x
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: Method Blank
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNued	Dil zac
Chromium	ND		1.04	0.183	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Cobalt	ND		1.04	0.237	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Copper	ND		1.04	0.528	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Lead	ND		5.21	1.01	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Molybdenum	ND		0.521	0.469	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Nickel	ND		0.521	0.447	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Selenium	ND		5.21	1.93	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Silver	ND		1.04	0.235	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Thallium	ND		5.21	1.54	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Vanadium	ND		1.04	0.179	mg/Kg		07/27/21 08:22	07/27/21 17:36	1
Zinc	ND		10.4	5.33	mg/Kg		07/27/21 08:22	07/27/21 17:36	1

Lab Sample ID: LCS 570-166738/2-x
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte			Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits		
Antimony			25.1	24.34		mg/Kg		97	80 - 120		
Arsenic			25.1	24.88		mg/Kg		99	80 - 120		
Barium			25.1	26.14		mg/Kg		104	80 - 120		
Beryllium			25.1	24.26		mg/Kg		97	80 - 120		
Cadmium			25.1	24.87		mg/Kg		99	80 - 120		
Chromium			25.1	24.74		mg/Kg		98	80 - 120		
Cobalt			25.1	24.85		mg/Kg		99	80 - 120		
Copper			25.1	26.19		mg/Kg		104	80 - 120		
Lead			25.1	24.30		mg/Kg		97	80 - 120		
Molybdenum			25.1	24.28		mg/Kg		97	80 - 120		
Nickel			25.1	25.68		mg/Kg		102	80 - 120		
Selenium			25.1	24.31		mg/Kg		97	80 - 120		
Silver			12.6	12.21		mg/Kg		97	80 - 120		
Thallium			25.1	23.18		mg/Kg		92	80 - 120		
Vanadium			25.1	24.41		mg/Kg		97	80 - 120		
Zinc			25.1	24.17		mg/Kg		96	80 - 120		

Lab Sample ID: LCSD 570-166738/A-x
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Antimony			25.8	24.43		mg/Kg		95	80 - 120	0	20
Arsenic			25.8	24.61		mg/Kg		95	80 - 120	1	20
Barium			25.8	26.65		mg/Kg		103	80 - 120	2	20
Beryllium			25.8	24.69		mg/Kg		96	80 - 120	2	20
Cadmium			25.8	25.17		mg/Kg		98	80 - 120	1	20
Chromium			25.8	25.16		mg/Kg		98	80 - 120	2	20
Cobalt			25.8	25.24		mg/Kg		98	80 - 120	2	20
Copper			25.8	26.63		mg/Kg		103	80 - 120	2	20
Lead			25.8	25.26		mg/Kg		98	80 - 120	4	20
Molybdenum			25.8	25.15		mg/Kg		98	80 - 120	4	20

Method: 6010B - Metals (ICT) (Continued)

Lab Sample ID: LCSD 570-166738/A-x
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	Rec9 Limits	RTD	RTD Limit
Nickel			25.8	26.14		mg/Kg		101	80 - 120	2	20
Selenium			25.8	26.12		mg/Kg		101	80 - 120	7	20
Silver			12.9	12.48		mg/Kg		97	80 - 120	2	20
Thallium			25.8	24.84		mg/Kg		96	80 - 120	7	20
Vanadium			25.8	24.75		mg/Kg		96	80 - 120	1	20
Zinc			25.8	24.53		mg/Kg		95	80 - 120	1	20

Lab Sample ID: 570-651A0-22 MS
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: B26-095
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MS Result	MS Quali%er	f nit	D	. Rec	Rec9 Limits
Antimony	ND		24.4	22.04		mg/Kg		90	75 - 125
Arsenic	ND		24.4	24.09		mg/Kg		99	75 - 125
Barium	7.37		24.4	32.95		mg/Kg		105	75 - 125
Beryllium	0.296		24.4	25.23		mg/Kg		102	75 - 125
Cadmium	0.235	J	24.4	24.50		mg/Kg		99	75 - 125
Chromium	1.35		24.4	26.32		mg/Kg		102	75 - 125
Cobalt	1.38		24.4	25.70		mg/Kg		100	75 - 125
Copper	2.34		24.4	28.48		mg/Kg		107	75 - 125
Lead	1.23	J	24.4	25.42		mg/Kg		99	75 - 125
Molybdenum	ND		24.4	24.79		mg/Kg		102	75 - 125
Nickel	1.57		24.4	26.86		mg/Kg		104	75 - 125
Selenium	ND		24.4	24.14		mg/Kg		99	75 - 125
Silver	ND		12.2	12.51		mg/Kg		103	75 - 125
Thallium	ND		24.4	23.95		mg/Kg		98	75 - 125
Vanadium	5.79		24.4	30.03		mg/Kg		99	75 - 125
Zinc	8.03	J	24.4	28.68		mg/Kg		85	75 - 125

Lab Sample ID: 570-651A0-22 MSD
MatriP: Solid
x nalNsis Batch: 166F18

Client Sample ID: B26-095
Trep yNpe: yotal/4 x
Trep Batch: 166738

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	Rec9 Limits	RTD	RTD Limit
Antimony	ND		25.0	22.54		mg/Kg		90	75 - 125	2	20
Arsenic	ND		25.0	25.17		mg/Kg		101	75 - 125	4	20
Barium	7.37		25.0	33.63		mg/Kg		105	75 - 125	2	20
Beryllium	0.296		25.0	25.66		mg/Kg		101	75 - 125	2	20
Cadmium	0.235	J	25.0	25.05		mg/Kg		99	75 - 125	2	20
Chromium	1.35		25.0	26.67		mg/Kg		101	75 - 125	1	20
Cobalt	1.38		25.0	26.32		mg/Kg		100	75 - 125	2	20
Copper	2.34		25.0	29.06		mg/Kg		107	75 - 125	2	20
Lead	1.23	J	25.0	25.86		mg/Kg		98	75 - 125	2	20
Molybdenum	ND		25.0	25.82		mg/Kg		103	75 - 125	4	20
Nickel	1.57		25.0	27.54		mg/Kg		104	75 - 125	3	20
Selenium	ND		25.0	25.90		mg/Kg		104	75 - 125	7	20
Silver	ND		12.5	12.74		mg/Kg		102	75 - 125	2	20
Thallium	ND		25.0	24.38		mg/Kg		98	75 - 125	2	20
Vanadium	5.79		25.0	30.75		mg/Kg		100	75 - 125	2	20

Method: 6010B - Metals (ICT) (Continued)

Lab Sample ID: 570-651A0-22 MSD — **Client Sample ID: B26-095**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166F18 — **Trep Batch: 166738**

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Zinc	8.03	J	25.0	29.57		mg/Kg		86	75 - 125	3	20

Method: 7371x - MercurN (CVx x)

Lab Sample ID: MB 570-166712/1-x — **Client Sample ID: Method Blank**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166712**

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Mercury	ND		0.0847	0.0137	mg/Kg		07/27/21 07:04	07/27/21 14:30	1

Lab Sample ID: LCS 570-166712/2-x — **Client Sample ID: Lab Control Sample**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166712**

x nalNte	Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits
Mercury	0.833	0.7988		mg/Kg		96	85 - 121

Lab Sample ID: LCSD 570-166712/A-x — **Client Sample ID: Lab Control Sample Dup**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166712**

x nalNte	Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Mercury	0.862	0.8209		mg/Kg		95	85 - 121	3	10

Lab Sample ID: 570-651A0-2 MS — **Client Sample ID: B6-095**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166712**

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MS Result	MS Quali%er	f nit	D	. Rec	. Rec9 Limits
Mercury	0.0232	J	0.833	0.7566		mg/Kg		88	71 - 137

Lab Sample ID: 570-651A0-2 MSD — **Client Sample ID: B6-095**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166712**

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Mercury	0.0232	J	0.794	0.7483		mg/Kg		91	71 - 137	1	14

Lab Sample ID: MB 570-166723/1-x — **Client Sample ID: Method Blank**
MatriP: Solid — **Trep yNpe: yotal/4 x**
x nalNsis Batch: 166886 — **Trep Batch: 166723**

x nalNte	MB Result	MB Quali%er	RL	MDL	f nit	D	Trepared	x nalNUed	Dil zac
Mercury	ND		0.0794	0.0129	mg/Kg		07/27/21 07:08	07/27/21 16:06	1

Method: 7371x - MercurN (CVx x) (Continued)

Lab Sample ID: LCS 570-166723/2-x
MatriP: Solid
x nalNsis Batch: 166886

Client Sample ID: Lab Control Sample
Trep yNpe: yotal/4 x
Trep Batch: 166723

x nalNte			Spike x dded	LCS Result	LCS Quali%er	f nit	D	. Rec	. Rec9 Limits		
Mercury			0.806	0.7923		mg/Kg		98	85 - 121		

Lab Sample ID: LCSD 570-166723/A-x
MatriP: Solid
x nalNsis Batch: 166886

Client Sample ID: Lab Control Sample Dup
Trep yNpe: yotal/4 x
Trep Batch: 166723

x nalNte			Spike x dded	LCSD Result	LCSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Mercury			0.794	0.7849		mg/Kg		99	85 - 121	1	10

Lab Sample ID: 570-651A0-32 MS
MatriP: Solid
x nalNsis Batch: 166886

Client Sample ID: B8-095
Trep yNpe: yotal/4 x
Trep Batch: 166723

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MS Result	MS Quali%er	f nit	D	. Rec	. Rec9 Limits		
Mercury	ND		0.877	0.8278		mg/Kg		94	71 - 137		

Lab Sample ID: 570-651A0-32 MSD
MatriP: Solid
x nalNsis Batch: 166886

Client Sample ID: B8-095
Trep yNpe: yotal/4 x
Trep Batch: 166723

x nalNte	Sample Result	Sample Quali%er	Spike x dded	MSD Result	MSD Quali%er	f nit	D	. Rec	. Rec9 Limits	RTD	RTD Limit
Mercury	ND		0.862	0.8208		mg/Kg		95	71 - 137	1	14

GC/MS VOA

Analysis Batch: 166039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-3	B6-5	Total/NA	Solid	8260B	166054
570-65130-7	B5-5	Total/NA	Solid	8260B	166054
570-65130-11	B1-5	Total/NA	Solid	8260B	166054
570-65130-15	B11-5	Total/NA	Solid	8260B	166054
570-65130-19	B25-5	Total/NA	Solid	8260B	166054
MB 570-166054/3-A	Method Blank	Total/NA	Solid	8260B	166054
LCS 570-166054/1-A	Lab Control Sample	Total/NA	Solid	8260B	166054
LCSD 570-166054/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	166054

Prep Batch: 166054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-3	B6-5	Total/NA	Solid	5030C	
570-65130-7	B5-5	Total/NA	Solid	5030C	
570-65130-11	B1-5	Total/NA	Solid	5030C	
570-65130-15	B11-5	Total/NA	Solid	5030C	
570-65130-19	B25-5	Total/NA	Solid	5030C	
MB 570-166054/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-166054/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-166054/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 166204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-23	B26-5	Total/NA	Solid	8260B	166237
570-65130-27	B27-5	Total/NA	Solid	8260B	166237
570-65130-31	B4-5	Total/NA	Solid	8260B	166237
570-65130-35	B2-5	Total/NA	Solid	8260B	166237
570-65130-39	B7-5	Total/NA	Solid	8260B	166237
570-65130-43	B8-5	Total/NA	Solid	8260B	166237
570-65130-47	B9-5	Total/NA	Solid	8260B	166237
570-65130-51	B10-5	Total/NA	Solid	8260B	166237
MB 570-166237/3-A	Method Blank	Total/NA	Solid	8260B	166237
LCS 570-166237/1-A	Lab Control Sample	Total/NA	Solid	8260B	166237
LCSD 570-166237/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	166237
570-65130-23 MS	B26-5	Total/NA	Solid	8260B	166237
570-65130-23 MSD	B26-5	Total/NA	Solid	8260B	166237

Prep Batch: 166237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-23	B26-5	Total/NA	Solid	5030C	
570-65130-27	B27-5	Total/NA	Solid	5030C	
570-65130-31	B4-5	Total/NA	Solid	5030C	
570-65130-35	B2-5	Total/NA	Solid	5030C	
570-65130-39	B7-5	Total/NA	Solid	5030C	
570-65130-43	B8-5	Total/NA	Solid	5030C	
570-65130-47	B9-5	Total/NA	Solid	5030C	
570-65130-51	B10-5	Total/NA	Solid	5030C	
MB 570-166237/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-166237/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-166237/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-65130-23 MS	B26-5	Total/NA	Solid	5030C	
570-65130-23 MSD	B26-5	Total/NA	Solid	5030C	

GC Semi VOA

Prep Batch: 166163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-1	B3-0.5	Total/NA	Solid	3546	
MB 570-166163/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-166163/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-166163/5-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 166416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	3546	
570-65130-6	B5-0.5	Total/NA	Solid	3546	
570-65130-10	B1-0.5	Total/NA	Solid	3546	
570-65130-14	B11-0.5	Total/NA	Solid	3546	
570-65130-18	B25-0.5	Total/NA	Solid	3546	
570-65130-22	B26-0.5	Total/NA	Solid	3546	
570-65130-26	B27-0.5	Total/NA	Solid	3546	
570-65130-30	B4-0.5	Total/NA	Solid	3546	
570-65130-34	B2-0.5	Total/NA	Solid	3546	
570-65130-38	B7-0.5	Total/NA	Solid	3546	
570-65130-42	B8-0.5	Total/NA	Solid	3546	
570-65130-46	B9-0.5	Total/NA	Solid	3546	
570-65130-50	B10-0.5	Total/NA	Solid	3546	
MB 570-166416/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-166416/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-166416/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-65130-2 MS	B6-0.5	Total/NA	Solid	3546	
570-65130-2 MSD	B6-0.5	Total/NA	Solid	3546	

Analysis Batch: 166465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-1	B3-0.5	Total/NA	Solid	8082	166163
MB 570-166163/1-A	Method Blank	Total/NA	Solid	8082	166163
LCS 570-166163/4-A	Lab Control Sample	Total/NA	Solid	8082	166163
LCSD 570-166163/5-A	Lab Control Sample Dup	Total/NA	Solid	8082	166163

Analysis Batch: 166793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	8081A	166416
MB 570-166416/1-A	Method Blank	Total/NA	Solid	8081A	166416
LCS 570-166416/2-A	Lab Control Sample	Total/NA	Solid	8081A	166416
LCSD 570-166416/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	166416
570-65130-2 MS	B6-0.5	Total/NA	Solid	8081A	166416
570-65130-2 MSD	B6-0.5	Total/NA	Solid	8081A	166416

Analysis Batch: 166808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-3	B6-5	Total/NA	Solid	8015B	166901
570-65130-7	B5-5	Total/NA	Solid	8015B	166901
570-65130-11	B1-5	Total/NA	Solid	8015B	166901
570-65130-15	B11-5	Total/NA	Solid	8015B	166901
570-65130-19	B25-5	Total/NA	Solid	8015B	166901
570-65130-23	B26-5	Total/NA	Solid	8015B	166901
570-65130-27	B27-5	Total/NA	Solid	8015B	166901

GC Semi VOA (Continued)

Analysis Batch: 166808 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-31	B4-5	Total/NA	Solid	8015B	166901
570-65130-35 - DL	B2-5	Total/NA	Solid	8015B	166901
570-65130-39 - RA	B7-5	Total/NA	Solid	8015B	166901
570-65130-47	B9-5	Total/NA	Solid	8015B	166901
570-65130-51	B10-5	Total/NA	Solid	8015B	166901
MB 570-166901/1-A	Method Blank	Total/NA	Solid	8015B	166901
LCS 570-166901/2-A	Lab Control Sample	Total/NA	Solid	8015B	166901
LCSD 570-166901/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	166901

Prep Batch: 166901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-3	B6-5	Total/NA	Solid	3550C	
570-65130-7	B5-5	Total/NA	Solid	3550C	
570-65130-11	B1-5	Total/NA	Solid	3550C	
570-65130-15	B11-5	Total/NA	Solid	3550C	
570-65130-19	B25-5	Total/NA	Solid	3550C	
570-65130-23	B26-5	Total/NA	Solid	3550C	
570-65130-27	B27-5	Total/NA	Solid	3550C	
570-65130-31	B4-5	Total/NA	Solid	3550C	
570-65130-35 - DL	B2-5	Total/NA	Solid	3550C	
570-65130-39 - RA	B7-5	Total/NA	Solid	3550C	
570-65130-43	B8-5	Total/NA	Solid	3550C	
570-65130-47	B9-5	Total/NA	Solid	3550C	
570-65130-51	B10-5	Total/NA	Solid	3550C	
MB 570-166901/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-166901/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-166901/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 166973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-6	B5-0.5	Total/NA	Solid	8081A	166416
570-65130-10	B1-0.5	Total/NA	Solid	8081A	166416
570-65130-14	B11-0.5	Total/NA	Solid	8081A	166416
570-65130-18	B25-0.5	Total/NA	Solid	8081A	166416
570-65130-22	B26-0.5	Total/NA	Solid	8081A	166416
570-65130-26	B27-0.5	Total/NA	Solid	8081A	166416
570-65130-30	B4-0.5	Total/NA	Solid	8081A	166416
570-65130-34	B2-0.5	Total/NA	Solid	8081A	166416
570-65130-38	B7-0.5	Total/NA	Solid	8081A	166416
570-65130-42	B8-0.5	Total/NA	Solid	8081A	166416
570-65130-46	B9-0.5	Total/NA	Solid	8081A	166416
570-65130-50	B10-0.5	Total/NA	Solid	8081A	166416

Analysis Batch: 167219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-43	B8-5	Total/NA	Solid	8015B	166901

Metals

Prep Batch: 166712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	7471A	
570-65130-3	B6-5	Total/NA	Solid	7471A	
570-65130-6	B5-0.5	Total/NA	Solid	7471A	
570-65130-7	B5-5	Total/NA	Solid	7471A	
570-65130-10	B1-0.5	Total/NA	Solid	7471A	
570-65130-11	B1-5	Total/NA	Solid	7471A	
570-65130-14	B11-0.5	Total/NA	Solid	7471A	
570-65130-15	B11-5	Total/NA	Solid	7471A	
570-65130-18	B25-0.5	Total/NA	Solid	7471A	
570-65130-19	B25-5	Total/NA	Solid	7471A	
570-65130-22	B26-0.5	Total/NA	Solid	7471A	
570-65130-23	B26-5	Total/NA	Solid	7471A	
570-65130-26	B27-0.5	Total/NA	Solid	7471A	
570-65130-27	B27-5	Total/NA	Solid	7471A	
570-65130-30	B4-0.5	Total/NA	Solid	7471A	
570-65130-31	B4-5	Total/NA	Solid	7471A	
570-65130-34	B2-0.5	Total/NA	Solid	7471A	
570-65130-35	B2-5	Total/NA	Solid	7471A	
570-65130-38	B7-0.5	Total/NA	Solid	7471A	
570-65130-39	B7-5	Total/NA	Solid	7471A	
MB 570-166712/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-166712/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-166712/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-65130-2 MS	B6-0.5	Total/NA	Solid	7471A	
570-65130-2 MSD	B6-0.5	Total/NA	Solid	7471A	

Prep Batch: 166724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-42	B8-0.5	Total/NA	Solid	7471A	
570-65130-43	B8-5	Total/NA	Solid	7471A	
570-65130-46	B9-0.5	Total/NA	Solid	7471A	
570-65130-47	B9-5	Total/NA	Solid	7471A	
570-65130-50	B10-0.5	Total/NA	Solid	7471A	
570-65130-51	B10-5	Total/NA	Solid	7471A	
MB 570-166724/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-166724/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-166724/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-65130-42 MS	B8-0.5	Total/NA	Solid	7471A	
570-65130-42 MSD	B8-0.5	Total/NA	Solid	7471A	

Prep Batch: 166746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	3050B	
570-65130-3	B6-5	Total/NA	Solid	3050B	
570-65130-6	B5-0.5	Total/NA	Solid	3050B	
570-65130-7	B5-5	Total/NA	Solid	3050B	
570-65130-10	B1-0.5	Total/NA	Solid	3050B	
570-65130-11	B1-5	Total/NA	Solid	3050B	
570-65130-14	B11-0.5	Total/NA	Solid	3050B	
570-65130-15	B11-5	Total/NA	Solid	3050B	
570-65130-18	B25-0.5	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 166746 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-19	B25-5	Total/NA	Solid	3050B	
MB 570-166746/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-166746/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-166746/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 166748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-22	B26-0.5	Total/NA	Solid	3050B	
570-65130-23	B26-5	Total/NA	Solid	3050B	
570-65130-26	B27-0.5	Total/NA	Solid	3050B	
570-65130-27	B27-5	Total/NA	Solid	3050B	
570-65130-30	B4-0.5	Total/NA	Solid	3050B	
570-65130-31	B4-5	Total/NA	Solid	3050B	
570-65130-34	B2-0.5	Total/NA	Solid	3050B	
570-65130-35	B2-5	Total/NA	Solid	3050B	
570-65130-38	B7-0.5	Total/NA	Solid	3050B	
570-65130-39	B7-5	Total/NA	Solid	3050B	
570-65130-42	B8-0.5	Total/NA	Solid	3050B	
570-65130-43	B8-5	Total/NA	Solid	3050B	
570-65130-46	B9-0.5	Total/NA	Solid	3050B	
570-65130-47	B9-5	Total/NA	Solid	3050B	
570-65130-50	B10-0.5	Total/NA	Solid	3050B	
570-65130-51	B10-5	Total/NA	Solid	3050B	
MB 570-166748/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-166748/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-166748/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-65130-22 MS	B26-0.5	Total/NA	Solid	3050B	
570-65130-22 MSD	B26-0.5	Total/NA	Solid	3050B	

Analysis Batch: 166886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	7471A	166712
570-65130-3	B6-5	Total/NA	Solid	7471A	166712
570-65130-6	B5-0.5	Total/NA	Solid	7471A	166712
570-65130-7	B5-5	Total/NA	Solid	7471A	166712
570-65130-10	B1-0.5	Total/NA	Solid	7471A	166712
570-65130-11	B1-5	Total/NA	Solid	7471A	166712
570-65130-14	B11-0.5	Total/NA	Solid	7471A	166712
570-65130-15	B11-5	Total/NA	Solid	7471A	166712
570-65130-18	B25-0.5	Total/NA	Solid	7471A	166712
570-65130-19	B25-5	Total/NA	Solid	7471A	166712
570-65130-22	B26-0.5	Total/NA	Solid	7471A	166712
570-65130-23	B26-5	Total/NA	Solid	7471A	166712
570-65130-26	B27-0.5	Total/NA	Solid	7471A	166712
570-65130-27	B27-5	Total/NA	Solid	7471A	166712
570-65130-30	B4-0.5	Total/NA	Solid	7471A	166712
570-65130-31	B4-5	Total/NA	Solid	7471A	166712
570-65130-34	B2-0.5	Total/NA	Solid	7471A	166712
570-65130-35	B2-5	Total/NA	Solid	7471A	166712
570-65130-38	B7-0.5	Total/NA	Solid	7471A	166712
570-65130-39	B7-5	Total/NA	Solid	7471A	166712

Metals (Continued)

Analysis Batch: 166886 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-42	B8-0.5	Total/NA	Solid	7471A	166724
570-65130-43	B8-5	Total/NA	Solid	7471A	166724
570-65130-46	B9-0.5	Total/NA	Solid	7471A	166724
570-65130-47	B9-5	Total/NA	Solid	7471A	166724
570-65130-50	B10-0.5	Total/NA	Solid	7471A	166724
570-65130-51	B10-5	Total/NA	Solid	7471A	166724
MB 570-166712/1-A	Method Blank	Total/NA	Solid	7471A	166712
MB 570-166724/1-A	Method Blank	Total/NA	Solid	7471A	166724
LCS 570-166712/2-A	Lab Control Sample	Total/NA	Solid	7471A	166712
LCS 570-166724/2-A	Lab Control Sample	Total/NA	Solid	7471A	166724
LCSD 570-166712/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	166712
LCSD 570-166724/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	166724
570-65130-2 MS	B6-0.5	Total/NA	Solid	7471A	166712
570-65130-2 MSD	B6-0.5	Total/NA	Solid	7471A	166712
570-65130-42 MS	B8-0.5	Total/NA	Solid	7471A	166724
570-65130-42 MSD	B8-0.5	Total/NA	Solid	7471A	166724

Analysis Batch: 166903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-2	B6-0.5	Total/NA	Solid	6010B	166746
570-65130-3	B6-5	Total/NA	Solid	6010B	166746
570-65130-6	B5-0.5	Total/NA	Solid	6010B	166746
570-65130-7	B5-5	Total/NA	Solid	6010B	166746
570-65130-10	B1-0.5	Total/NA	Solid	6010B	166746
570-65130-11	B1-5	Total/NA	Solid	6010B	166746
570-65130-14	B11-0.5	Total/NA	Solid	6010B	166746
570-65130-15	B11-5	Total/NA	Solid	6010B	166746
570-65130-18	B25-0.5	Total/NA	Solid	6010B	166746
570-65130-19	B25-5	Total/NA	Solid	6010B	166746
MB 570-166746/1-A	Method Blank	Total/NA	Solid	6010B	166746
LCS 570-166746/2-A	Lab Control Sample	Total/NA	Solid	6010B	166746
LCSD 570-166746/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	166746

Analysis Batch: 166918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65130-22	B26-0.5	Total/NA	Solid	6010B	166748
570-65130-23	B26-5	Total/NA	Solid	6010B	166748
570-65130-26	B27-0.5	Total/NA	Solid	6010B	166748
570-65130-27	B27-5	Total/NA	Solid	6010B	166748
570-65130-30	B4-0.5	Total/NA	Solid	6010B	166748
570-65130-31	B4-5	Total/NA	Solid	6010B	166748
570-65130-34	B2-0.5	Total/NA	Solid	6010B	166748
570-65130-35	B2-5	Total/NA	Solid	6010B	166748
570-65130-38	B7-0.5	Total/NA	Solid	6010B	166748
570-65130-39	B7-5	Total/NA	Solid	6010B	166748
570-65130-42	B8-0.5	Total/NA	Solid	6010B	166748
570-65130-43	B8-5	Total/NA	Solid	6010B	166748
570-65130-46	B9-0.5	Total/NA	Solid	6010B	166748
570-65130-47	B9-5	Total/NA	Solid	6010B	166748
570-65130-50	B10-0.5	Total/NA	Solid	6010B	166748
570-65130-51	B10-5	Total/NA	Solid	6010B	166748

Metals (Continued)

Analysis Batch: 166918 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-166748/1-A	Method Blank	Total/NA	Solid	6010B	166748
LCS 570-166748/2-A	Lab Control Sample	Total/NA	Solid	6010B	166748
LCSD 570-166748/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	166748
570-65130-22 MS	B26-0.5	Total/NA	Solid	6010B	166748
570-65130-22 MSD	B26-0.5	Total/NA	Solid	6010B	166748

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B12-0

Date Collected: - 5/86/86 61:. .
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-26
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.10 g	10 mL	166163	07/23/21 13:23	F7UI	ECL 1
Total/NA	Analysis	8082		1			166465	07/26/21 14:06	UHHN	ECL 1
	Instrument ID: GC66									

Client Sample ID: B72-0

Date Collected: - 5/86/86 6. :85
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-28
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.11 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166793	07/27/21 12:45	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.10 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:38	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:36	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B72

Date Collected: - 5/86/86 6. :1-
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-21
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	166054	07/23/21 15:36	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166039	07/23/21 17:54	U4JL	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			9.83 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 07:42	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			1.99 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:40	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.59 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:45	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B. 2-0

Date Collected: - 5/86/86 6F:- F
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-27
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.00 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 18:18	UHHN	ECL 1
	Instrument ID: GC44									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65130-1

Client Sample ID: B. 2- 0
Date Collected: - 5/86/86 6F:- F
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 27
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3050B			1.95 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:43	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.57 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:47	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B. 2
Date Collected: - 5/86/86 6. :. 6
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 25
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.95 g	5 mL	166054	07/23/21 15:36	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166039	07/23/21 18:19	U4JL	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			10.32 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 08:04	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			1.97 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:46	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.58 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:49	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B62- 0
Date Collected: - 5/86/86 61:F-
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 26-
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			19.90 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/27/21 23:48	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.93 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:48	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:51	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B62

Date Collected: - 5/88/86 66:68
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 266
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	166054	07/23/21 15:36	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166039	07/23/21 18:45	U4JL	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			9.89 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 08:24	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			1.91 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:56	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.60 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:52	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B662- 0

Date Collected: - 5/88/86 - N:65
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 26F
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.00 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 10:42	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.99 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 12:59	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.59 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:54	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B662

Date Collected: - 5/88/86 - N:8-
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 26.
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	166054	07/23/21 15:36	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166039	07/23/21 19:10	U4JL	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			9.52 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 08:45	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.05 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 13:01	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.57 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:56	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B8. 2- 0

Lab Sample ID: . 5- 27. 61- 26N

Date Collected: - 5/88/86 - 9:- F

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			19.99 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 10:56	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.07 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 13:04	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.58 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 14:58	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B8. 2

Lab Sample ID: . 5- 27. 61- 269

Date Collected: - 5/88/86 - 9:- N

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.16 g	5 mL	166054	07/23/21 15:36	C5SC	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166039	07/23/21 19:35	U4JL	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			10.65 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 09:05	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			1.94 g	100 mL	166746	07/27/21 07:11	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166903	07/27/21 13:06	ULPF	ECL 1
	Instrument ID: ICP9									
Total/NA	Prep	7471A			.61 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:04	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B872- 0

Lab Sample ID: . 5- 27. 61- 288

Date Collected: - 5/88/86 - 9:8N

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			19.87 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 11:11	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.97 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 17:52	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.60 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:05	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B872

Lab Sample ID: . 5- 27. 61- 281

Date Collected: - 5/88/86 - 9:1-

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.86 g	5 mL	166237	07/23/21 17:17	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 19:33	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			9.51 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 09:26	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.03 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 17:59	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.63 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:07	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B852- 0

Lab Sample ID: . 5- 27. 61- 287

Date Collected: - 5/88/86 6- :- 1

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			19.96 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 00:02	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.01 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:02	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:09	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B852

Lab Sample ID: . 5- 27. 61- 285

Date Collected: - 5/88/86 6- :- .

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 21:16	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			9.94 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 09:47	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.00 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:04	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.58 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:11	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: BF2-0

Date Collected: - 5/86/86 61:- .
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-21-

Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.10 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 11:25	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.06 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:06	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.61 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:13	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: BF2

Date Collected: - 5/88/86 66:. 1
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-216

Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.80 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 21:42	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			10.02 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 10:08	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.05 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:08	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.57 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:15	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B82-0

Date Collected: - 5/88/86 6- :FF
Date 4eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5-27. 61-21F

Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.26 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 11:39	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.01 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:11	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:17	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B82

Lab Sample ID: . 5- 27. 61- 21.

Date Collected: - 5/88/86 6- :F5

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.87 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 22:08	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C	DL		9.44 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B	DL	2			166808	07/28/21 12:54	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.00 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:13	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.61 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:19	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B52- 0

Lab Sample ID: . 5- 27. 61- 21N

Date Collected: - 5/88/86 68:81

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.02 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 11:54	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.09 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:23	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.62 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:20	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B52

Lab Sample ID: . 5- 27. 61- 219

Date Collected: - 5/88/86 68:85

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			4.96 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 22:34	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C	RA		10.40 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B	RA	1			166808	07/28/21 13:15	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.07 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:25	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.60 g	100 mL	166712	07/27/21 07:04	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 15:26	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: BN2- 0

Date Collected: - 5/88/86 68:F7
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 2F8
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.12 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 12:08	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.01 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:27	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 17:04	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: BN2

Date Collected: - 5/88/86 68:F9
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 2F1
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 23:01	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			10.68 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		2			167219	07/28/21 17:34	A1W	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.00 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:29	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.61 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 16:17	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B92- 0

Date Collected: - 5/88/86 61:8-
Date 4 eceiRed: - 5/88/86 65:- -

Lab Sample ID: . 5- 27. 61- 2F7
Matrix: Solid

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			19.91 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 18:04	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			2.05 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:32	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.60 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 16:19	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B92

Lab Sample ID: . 5- 27. 61- 2F5

Date Collected: - 5/88/86 61:88

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.19 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 23:26	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			10.28 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 11:51	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.08 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:34	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.63 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 16:21	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B6- 2- 0

Lab Sample ID: . 5- 27. 61- 2 -

Date Collected: - 5/88/86 61:- 8

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	3546			20.26 g	10 mL	166416	07/26/21 08:15	F7UI	ECL 1
Total/NA	Analysis	8081A		1			166973	07/28/21 17:49	UHHN	ECL 1
	Instrument ID: GC44									
Total/NA	Prep	3050B			1.94 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:36	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.59 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 16:23	VWJ7	ECL 1
	Instrument ID: HG8									

Client Sample ID: B6- 2

Lab Sample ID: . 5- 27. 61- 2 6

Date Collected: - 5/88/86 61:- 5

Matrix: Solid

Date 4 eceiRed: - 5/88/86 65:- -

Trep v3pe	Batch v3pe	Batch Method	4 An	Dil uactor	Initial y moAnt	uinal y moAnt	Batch z Amber	Trepared or y nal3sed	y nal3Pt	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	166237	07/23/21 17:18	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	166204	07/23/21 23:52	OH1	ECL 2
	Instrument ID: GCMSQQ									
Total/NA	Prep	3550C			10.18 g	10 mL	166901	07/27/21 14:39	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			166808	07/28/21 12:12	N5Y3	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			1.97 g	100 mL	166748	07/27/21 08:22	WL8G	ECL 1
Total/NA	Analysis	6010B		1			166918	07/27/21 18:38	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			.58 g	100 mL	166724	07/27/21 07:08	WL8G	ECL 1
Total/NA	Analysis	7471A		1			166886	07/27/21 17:19	VWJ7	ECL 1
	Instrument ID: HG8									

Laborator3 4 eferenceP:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Citadel Environmental Services Inc
Project/Site: East 228th Street

Job ID: 570-65210-2

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0262	22-29-L2
California	gos Anueles Co3nty Sanitation Districts	20209	09-10-L2
California	SCAQMD gAP	27gA0929	22-10-L2
California	State	L944	09-10-L2
G3am	State	L2-001R	06-LL-LL
Nevada	State	CA00222	07-12-L2
Oreuon	NEgAP	CA100002	02-10-LL
USDA	US Federal Prourams	P110-L0-00014	0L-20-L1
Washinuton	State	C926-28	20-22-L2

Method Summary

Client: Citadel Environmental Services Inc
Project/Site: East 228th Street

Job ID: 570-65210-2

Method	Method Description	Protocol	Laboratory
8B60V	Colatile g rpanic Comuo(nds GMC/) SL	SW846	ECRB
8025V	Diesel Aanpe g rpanics GDAg LGMCL	SW846	ECR2
8082y	g rpanochlorine Pesticides GMCL	SW846	ECR2
808B	Pol3chlorinated Viuhen3ls GPCVsLb3 Mas Chromatoprauh3	SW846	ECR2
6020V	) etals GCPL	SW846	ECR2
7472y	) erc(r3 GCOy y L	SW846	ECR2
1050V	Preuaration,) etals	SW846	ECR2
1546	) icrowave Extraction	SW846	ECR2
1550C	Ultrasonic Extraction	SW846	ECR2
5010C	P(rpe and Trau	SW846	ECRB
7472y	Preuaration,) erc(r3	SW846	ECR2

Protocol References:

SW846 = "Test) ethods For Eval(atinp Solid Waste, Ph3sical/Chemical) ethods", Third Edition, November 2986 y nd Its Uudates.

Laboratory References:

ECR2 = E(rofins Calscience RRC Rincoln, 7440 Rincoln Wa3, Marden Mrove, Cy 9B842, TERG724L895-5494

ECRB = E(rofins Calscience RRC Ramuson, 7445 Ramuson y ve, Marden Mrove, Cy 9B842, TERG724L895-5494

Sample Summary

Client: Citadel Environmental Services Inc
Project/Site: East 228th Street

Job ID: 570-65210-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-65210-2	B1-0.5	Solid	07/42/42 21:55	07/44/42 27:00
570-65210-4	B6-0.5	Solid	07/42/42 25:47	07/44/42 27:00
570-65210-1	B6-5	Solid	07/42/42 25:10	07/44/42 27:00
570-65210-6	B5-0.5	Solid	07/42/42 23:03	07/44/42 27:00
570-65210-7	B5-5	Solid	07/42/42 25:52	07/44/42 27:00
570-65210-20	B2-0.5	Solid	07/42/42 21:30	07/44/42 27:00
570-65210-22	B2-5	Solid	07/44/42 22:24	07/44/42 27:00
570-65210-23	B22-0.5	Solid	07/44/42 08:27	07/44/42 27:00
570-65210-25	B22-5	Solid	07/44/42 08:40	07/44/42 27:00
570-65210-28	B45-0.5	Solid	07/44/42 09:03	07/44/42 27:00
570-65210-29	B45-5	Solid	07/44/42 09:08	07/44/42 27:00
570-65210-44	B46-0.5	Solid	07/44/42 09:48	07/44/42 27:00
570-65210-41	B46-5	Solid	07/44/42 09:10	07/44/42 27:00
570-65210-46	B47-0.5	Solid	07/44/42 20:01	07/44/42 27:00
570-65210-47	B47-5	Solid	07/44/42 20:05	07/44/42 27:00
570-65210-10	B3-0.5	Solid	07/42/42 21:05	07/44/42 27:00
570-65210-12	B3-5	Solid	07/44/42 22:51	07/44/42 27:00
570-65210-13	B4-0.5	Solid	07/44/42 20:33	07/44/42 27:00
570-65210-15	B4-5	Solid	07/44/42 20:37	07/44/42 27:00
570-65210-18	B7-0.5	Solid	07/44/42 24:41	07/44/42 27:00
570-65210-19	B7-5	Solid	07/44/42 24:47	07/44/42 27:00
570-65210-34	B8-0.5	Solid	07/44/42 24:36	07/44/42 27:00
570-65210-31	B8-5	Solid	07/44/42 24:39	07/44/42 27:00
570-65210-36	B9-0.5	Solid	07/44/42 21:40	07/44/42 27:00
570-65210-37	B9-5	Solid	07/44/42 21:44	07/44/42 27:00
570-65210-50	B20-0.5	Solid	07/44/42 21:04	07/44/42 27:00
570-65210-52	B20-5	Solid	07/44/42 21:07	07/44/42 27:00

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570-65130 Chain of Custody

65130

CHAIN OF CUSTODY RECORD

7-22-21

1 OF 6

LABORATORY CLIENT: Citadel EHS
ADDRESS: 1725 Victory Blvd.
CITY: Glendale STATE: CA ZIP: 91201
TEL.: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street
PO NO: 0350.1007.0
PROJECT CONTACT: Scott Grasse
SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS
Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold
1	B3-0.5	7-21-21	1355	Soil	1														X				
2	B6-0.5	"	1527	"	"													X			X		
3	B6-5		1530									X		X							X		
4	B6-10		1535																				X
5	B6-15		1540																				X
6	B5-0.5		1404															X			X		
7	B5-5		1551									X		X							X		
8	B5-10		1555																				X
9	B5-15		1600																				X
10	B1-0.5	"	1340	"	"													X			X		

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date: 07/22/21	Time: 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Maribel Esi	Date: 7/22/21	Time: 1700
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

7-23-21 SCC.

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14 13 12 11 10 9 8 7 6 5 4 3 2 1

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DATE: 7-22-21

PAGE: 2 OF 6

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS

Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH __ Full Range	BTEX / MTBE ☐ 8260 ☐ __	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6	Hold			
11	B1-5	7-22-21	1112	Soil	1							X		X							X					
12	B1-10	"	1116	"	"																		X			
13	B1-15	"	1123	"	"																		X			
14	B11-0.5	"	0817	"	"													X			X					
15	B11-5	"	0820	"	"							X		X							X					
16	B11-10	"	0823	"	"																		X			
17	B11-15	"	0826	"	"																		X			
18	B25-0.5	"	0904	"	"													X			X					
19	B25-5	"	0908	"	"							X		X							X					
20	B25-10	"	0911	"	"																		X			

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date: 7/22/21	Time 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Maribel Eri	Date: 7/22/21	Time 1700
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time

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CHAIN OF CUSTODY RECORD

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DATE: 7-22-21

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LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

P O NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH __Full Range	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 218.6	Hold				
21	B25-15	7-22-21	0914	Soil	1																		X				
22	B26-0.5		0928															X			X						
23	B26-5		0930									X		X							X						
24	B26-10		0941																				X				
25	B26-15		0947																				X				
26	B27-0.5		1003															X			X						
27	B27-5		1005									X		X							X						
28	B27-10		1008																				X				
29	B27-15		1012																				X				
30	B4-0.5	7-21-21	1305															X			X						

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date: 7/22/21	Time: 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Mankel Lai	Date: 7/22/21	Time: 1700
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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CHAIN OF CUSTODY RECORD

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PAGE: 4 OF 6

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold
31	B4-5	7-22-21	1153	Soil	1							X		X							X		
32	B4-10	"	1157	"	"																		X
33	B4-15	"	1200	"	"																		X
34	B2-0.5	"	1044	"	"													X			X		
35	B2-5	"	1047	"	"							X		X							X		
36	B2-10	"	1049	"	"																		X
37	B2-15	"	1052	"	"																		X
38	B7-0.5	"	1223	"	"													X			X		
39	B7-5	"	1227	"	"							X		X							X		
40	B7-10	"	1233	"	"																		X

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date: 7/22/21	Time: 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Manbeltran	Date: 7/22/21	Time: 1700
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time

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LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS

Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ☐ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6	Hold				
41	B7-15	7-22-21	1236	Soil	1																		X			
42	B8-0.5		1246															X			X					
43	B8-5		~~1250~~ 1259									X		X				X			X					
44	B8-10		1251																				X			
45	B8-15		1253																				X			
46	B9-0.5		1320															X			X					
47	B9-5		1322									X		X							X					
48	B9-10		1324																				X			
49	B9-15		1329																				X			
50	B10-0.5	"	1302	"	"													X			X					

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation)	Date 7/22/21	Time 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Mankel Lau	Date 7/22/21	Time 1700
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

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7/30/2021

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 7-22-21

PAGE: 6 OF 6

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold			
51	B10-5	7-22-21	1307	Soil	1							X		X							X					
52	B10-10	"	1309	"	"																		X			
53	B10-15	"	1312	"	"																		X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time
Tim Lambert		7/22/21	1518
	Citadel EHS	7/22/21	1700
		Date	Time

06/02/14 Revision

Login Sample Receipt Checklist

Client: Citadel Environmental Services Inc

Job Number: 570-65130-1

Login Number: 65130
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience LLC

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-65144-1
Client Project/Site: East 118th Street

For:
Citadel Environmental Services Inc
1725 Victory Blvd
Glendale, California 91201

Attn: Scott Grasse

Authorized for release by:
7/29/2021 8:47:42 AM

Erick Ovalle, Project Manager
(714)895-5494
erick.ovalle@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-65144-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-65144-1

Comments
No additional comments.

Receipt
The samples were received on 7/22/2021 5:00 PM. Unless otherwise noted below, the samples arrived in good condition.

Air Toxics
Method 8260B: Surrogate recovery for the following sample was outside control limits: B20-5V (570-65144-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260B: The method blank for analytical batch 570-166129 contained Methylene Chloride above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Client Sample ID: B13-5V — Lab Sample ID: 570-65144-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.7	J	16	0.50	ug/m3	1		8260B	Total/NA
Chloroform	0.94	J	24	0.78	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.8	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	1.7	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	83	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	1.3	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	19	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.1	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	4.0	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	1.6	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	3.0	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	3.0	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	18	J	19	0.50	ug/m3	1		8260B	Total/NA
Xylenes, Total	5.6	J	22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B13-15V — Lab Sample ID: 570-65144-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.1	J	16	0.50	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.7	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	3.2	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	120		94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	1.8	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	31	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.5	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	5.7	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	2.2	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	6.0	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	2.5	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	33		19	0.50	ug/m3	1		8260B	Total/NA
Xylenes, Total	7.9	J	22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B14-5V — Lab Sample ID: 570-65144-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0	J	16	0.50	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.7	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	1.4	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	69	J	94	4.8	ug/m3	1		8260B	Total/NA
Isopropanol	15	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.0	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	4.0	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	1.5	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	2.0	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	1.9	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	14	J	19	0.50	ug/m3	1		8260B	Total/NA
Xylenes, Total	5.5	J	22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B14-15V — Lab Sample ID: 570-65144-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.6	J	16	0.50	ug/m3	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B14-15V (Continued)

Lab Sample ID: 570-65144-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.45	J	10	0.33	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.6	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	1.7	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	80	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	1.3	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	18	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.1	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	5.1	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	2.0	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	1.7	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	1.1	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	16	J	19	0.50	ug/m3	1		8260B	Total/NA
Xylenes, Total	7.1	J	22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B20-5V

Lab Sample ID: 570-65144-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.4	J	16	0.50	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	2.1	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	1.6	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	70	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	4.6	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	15	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.1	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	14	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	11	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	2.1	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	26	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	20		19	0.50	ug/m3	1		8260B	Total/NA
Trichlorofluoromethane	1.5	J	28	1.3	ug/m3	1		8260B	Total/NA
Xylenes, Total	25		22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B20-15V

Lab Sample ID: 570-65144-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.1	J	16	0.50	ug/m3	1		8260B	Total/NA
Chloromethane	0.57	J	10	0.33	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	2.3	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	1.7	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	78	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	3.4	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	18	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.6	J B	17	1.9	ug/m3	1		8260B	Total/NA
o-Xylene	6.7	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	2.9	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	23	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	23		19	0.50	ug/m3	1		8260B	Total/NA
Trichlorofluoromethane	1.9	J	28	1.3	ug/m3	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.7	J	25	1.6	ug/m3	1		8260B	Total/NA
Xylenes, Total	6.7	J	22	2.7	ug/m3	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Client Sample ID: B22-5V — Lab Sample ID: 570-65144-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.7	J	16	0.50	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.8	J	25	0.98	ug/m3	1		8260B	Total/NA
Ethanol	75	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	1.6	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	17	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.0	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	5.0	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	2.4	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	2.4	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	2.2	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	17	J	19	0.50	ug/m3	1		8260B	Total/NA
Xylenes, Total	7.4	J	22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B22-15V — Lab Sample ID: 570-65144-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.3	J	16	0.50	ug/m3	1		8260B	Total/NA
Chloroform	5.6	J	24	0.78	ug/m3	1		8260B	Total/NA
Chloromethane	0.42	J	10	0.33	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.8	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	3.2	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	87	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	9.7	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	11	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.0	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	40		22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	13	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	2.4	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	2.1	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	33		19	0.50	ug/m3	1		8260B	Total/NA
Trichlorofluoromethane	1.5	J	28	1.3	ug/m3	1		8260B	Total/NA
Xylenes, Total	53		22	2.7	ug/m3	1		8260B	Total/NA

Client Sample ID: B23-5V — Lab Sample ID: 570-65144-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.4	J	16	0.50	ug/m3	1		8260B	Total/NA
Chloroform	1.2	J	24	0.78	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	1.8	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	3.7	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	89	J	94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	2.6	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	10	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.1	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	9.2	J	22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	5.0	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	3.1	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	3.3	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	36		19	0.50	ug/m3	1		8260B	Total/NA
Trichlorofluoromethane	2.8	J	28	1.3	ug/m3	1		8260B	Total/NA
Xylenes, Total	14	J	22	2.7	ug/m3	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Client Sample ID: B23-15V

Lab Sample ID: 570-65144-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.7	J	16	0.50	ug/m3	1		8260B	Total/NA
Chloromethane	0.55	J	10	0.33	ug/m3	1		8260B	Total/NA
Dichlorodifluoromethane	2.1	J	25	0.98	ug/m3	1		8260B	Total/NA
1,2-Dichloropropane	5.2	J	23	0.64	ug/m3	1		8260B	Total/NA
Ethanol	95		94	4.8	ug/m3	1		8260B	Total/NA
Ethylbenzene	6.7	J	22	1.1	ug/m3	1		8260B	Total/NA
Isopropanol	12	J	120	0.96	ug/m3	1		8260B	Total/NA
Methylene Chloride	4.4	J B	17	1.9	ug/m3	1		8260B	Total/NA
m,p-Xylene	23		22	2.7	ug/m3	1		8260B	Total/NA
o-Xylene	9.0	J	22	0.86	ug/m3	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	4.1	J	15	1.1	ug/m3	1		8260B	Total/NA
Tetrachloroethene	5.4	J	34	1.1	ug/m3	1		8260B	Total/NA
Toluene	41		19	0.50	ug/m3	1		8260B	Total/NA
Trichlorofluoromethane	2.1	J	28	1.3	ug/m3	1		8260B	Total/NA
Xylenes, Total	32		22	2.7	ug/m3	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B13-5V
Date Collected: 07/22/21 10:14
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-1
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.7**	**J**	16	0.50	ug/m3			07/23/21 21:11	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/23/21 21:11	1
Bromoform	ND		52	1.8	ug/m3			07/23/21 21:11	1
Bromomethane	ND		19	0.54	ug/m3			07/23/21 21:11	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/23/21 21:11	1
Chlorobenzene	ND		23	0.60	ug/m3			07/23/21 21:11	1
Chloroethane	ND		13	0.45	ug/m3			07/23/21 21:11	1
Chloroform	**0.94**	**J**	24	0.78	ug/m3			07/23/21 21:11	1
Chloromethane	ND		10	0.33	ug/m3			07/23/21 21:11	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/23/21 21:11	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/23/21 21:11	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/23/21 21:11	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/23/21 21:11	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 21:11	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 21:11	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 21:11	1
Dichlorodifluoromethane	**1.8**	**J**	25	0.98	ug/m3			07/23/21 21:11	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/23/21 21:11	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/23/21 21:11	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/23/21 21:11	1
1,2-Dichloropropane	**1.7**	**J**	23	0.64	ug/m3			07/23/21 21:11	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/23/21 21:11	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/23/21 21:11	1
Ethanol	**83**	**J**	94	4.8	ug/m3			07/23/21 21:11	1
Ethylbenzene	**1.3**	**J**	22	1.1	ug/m3			07/23/21 21:11	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/23/21 21:11	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/23/21 21:11	1
Isopropanol	**19**	**J**	120	0.96	ug/m3			07/23/21 21:11	1
Methylene Chloride	**4.1**	**J B**	17	1.9	ug/m3			07/23/21 21:11	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/23/21 21:11	1
m,p-Xylene	**4.0**	**J**	22	2.7	ug/m3			07/23/21 21:11	1
Naphthalene	ND		26	3.1	ug/m3			07/23/21 21:11	1
o-Xylene	**1.6**	**J**	22	0.86	ug/m3			07/23/21 21:11	1
Styrene	ND		21	2.3	ug/m3			07/23/21 21:11	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/23/21 21:11	1
tert-Butyl alcohol (TBA)	**3.0**	**J**	15	1.1	ug/m3			07/23/21 21:11	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/23/21 21:11	1
Tetrachloroethene	**3.0**	**J**	34	1.1	ug/m3			07/23/21 21:11	1
Toluene	**18**	**J**	19	0.50	ug/m3			07/23/21 21:11	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/23/21 21:11	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/23/21 21:11	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/23/21 21:11	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/23/21 21:11	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/23/21 21:11	1
Trichloroethene	ND		27	0.96	ug/m3			07/23/21 21:11	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/23/21 21:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/23/21 21:11	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/23/21 21:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B13-5V
Date Collected: 07/22/21 10:14
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-1
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/23/21 21:11	1
Vinyl chloride	ND		13	0.41	ug/m3			07/23/21 21:11	1
Xylenes, Total	**5.6**	**J**	22	2.7	ug/m3			07/23/21 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*07/23/21 21:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 131*		*07/23/21 21:11*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/23/21 21:11*	*1*

Client Sample ID: B13-15V
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-2
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.1**	**J**	16	0.50	ug/m3			07/23/21 22:03	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/23/21 22:03	1
Bromoform	ND		52	1.8	ug/m3			07/23/21 22:03	1
Bromomethane	ND		19	0.54	ug/m3			07/23/21 22:03	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/23/21 22:03	1
Chlorobenzene	ND		23	0.60	ug/m3			07/23/21 22:03	1
Chloroethane	ND		13	0.45	ug/m3			07/23/21 22:03	1
Chloroform	ND		24	0.78	ug/m3			07/23/21 22:03	1
Chloromethane	ND		10	0.33	ug/m3			07/23/21 22:03	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/23/21 22:03	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/23/21 22:03	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/23/21 22:03	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/23/21 22:03	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:03	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:03	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:03	1
Dichlorodifluoromethane	**1.7**	**J**	25	0.98	ug/m3			07/23/21 22:03	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/23/21 22:03	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/23/21 22:03	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/23/21 22:03	1
1,2-Dichloropropane	**3.2**	**J**	23	0.64	ug/m3			07/23/21 22:03	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/23/21 22:03	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/23/21 22:03	1
Ethanol	**120**		94	4.8	ug/m3			07/23/21 22:03	1
Ethylbenzene	**1.8**	**J**	22	1.1	ug/m3			07/23/21 22:03	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/23/21 22:03	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/23/21 22:03	1
Isopropanol	**31**	**J**	120	0.96	ug/m3			07/23/21 22:03	1
Methylene Chloride	**4.5**	**J B**	17	1.9	ug/m3			07/23/21 22:03	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/23/21 22:03	1
m,p-Xylene	**5.7**	**J**	22	2.7	ug/m3			07/23/21 22:03	1
Naphthalene	ND		26	3.1	ug/m3			07/23/21 22:03	1
o-Xylene	**2.2**	**J**	22	0.86	ug/m3			07/23/21 22:03	1
Styrene	ND		21	2.3	ug/m3			07/23/21 22:03	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/23/21 22:03	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B13-15V
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-2
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	**6.0**	**J**	15	1.1	ug/m3			07/23/21 22:03	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/23/21 22:03	1
Tetrachloroethene	**2.5**	**J**	34	1.1	ug/m3			07/23/21 22:03	1
Toluene	**33**		19	0.50	ug/m3			07/23/21 22:03	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/23/21 22:03	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/23/21 22:03	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/23/21 22:03	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/23/21 22:03	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/23/21 22:03	1
Trichloroethene	ND		27	0.96	ug/m3			07/23/21 22:03	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/23/21 22:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/23/21 22:03	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/23/21 22:03	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/23/21 22:03	1
Vinyl chloride	ND		13	0.41	ug/m3			07/23/21 22:03	1
Xylenes, Total	**7.9**	**J**	22	2.7	ug/m3			07/23/21 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*07/23/21 22:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 131*		*07/23/21 22:03*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/23/21 22:03*	*1*

Client Sample ID: B14-5V
Date Collected: 07/22/21 10:24
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-3
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.0**	**J**	16	0.50	ug/m3			07/23/21 22:55	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/23/21 22:55	1
Bromoform	ND		52	1.8	ug/m3			07/23/21 22:55	1
Bromomethane	ND		19	0.54	ug/m3			07/23/21 22:55	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/23/21 22:55	1
Chlorobenzene	ND		23	0.60	ug/m3			07/23/21 22:55	1
Chloroethane	ND		13	0.45	ug/m3			07/23/21 22:55	1
Chloroform	ND		24	0.78	ug/m3			07/23/21 22:55	1
Chloromethane	ND		10	0.33	ug/m3			07/23/21 22:55	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/23/21 22:55	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/23/21 22:55	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/23/21 22:55	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/23/21 22:55	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:55	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:55	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 22:55	1
Dichlorodifluoromethane	**1.7**	**J**	25	0.98	ug/m3			07/23/21 22:55	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/23/21 22:55	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/23/21 22:55	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/23/21 22:55	1
1,2-Dichloropropane	**1.4**	**J**	23	0.64	ug/m3			07/23/21 22:55	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/23/21 22:55	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B14-5V
Date Collected: 07/22/21 10:24
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-3
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/23/21 22:55	1
Ethanol	**69**	**J**	94	4.8	ug/m3			07/23/21 22:55	1
Ethylbenzene	ND		22	1.1	ug/m3			07/23/21 22:55	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/23/21 22:55	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/23/21 22:55	1
Isopropanol	**15**	**J**	120	0.96	ug/m3			07/23/21 22:55	1
Methylene Chloride	**4.0**	**J B**	17	1.9	ug/m3			07/23/21 22:55	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/23/21 22:55	1
m,p-Xylene	**4.0**	**J**	22	2.7	ug/m3			07/23/21 22:55	1
Naphthalene	ND		26	3.1	ug/m3			07/23/21 22:55	1
o-Xylene	**1.5**	**J**	22	0.86	ug/m3			07/23/21 22:55	1
Styrene	ND		21	2.3	ug/m3			07/23/21 22:55	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/23/21 22:55	1
tert-Butyl alcohol (TBA)	**2.0**	**J**	15	1.1	ug/m3			07/23/21 22:55	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/23/21 22:55	1
Tetrachloroethene	**1.9**	**J**	34	1.1	ug/m3			07/23/21 22:55	1
Toluene	**14**	**J**	19	0.50	ug/m3			07/23/21 22:55	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/23/21 22:55	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/23/21 22:55	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/23/21 22:55	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/23/21 22:55	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/23/21 22:55	1
Trichloroethene	ND		27	0.96	ug/m3			07/23/21 22:55	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/23/21 22:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/23/21 22:55	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/23/21 22:55	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/23/21 22:55	1
Vinyl chloride	ND		13	0.41	ug/m3			07/23/21 22:55	1
Xylenes, Total	**5.5**	**J**	22	2.7	ug/m3			07/23/21 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*07/23/21 22:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 131*		*07/23/21 22:55*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/23/21 22:55*	*1*

Client Sample ID: B14-15V
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-4
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.6**	**J**	16	0.50	ug/m3			07/23/21 23:46	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/23/21 23:46	1
Bromoform	ND		52	1.8	ug/m3			07/23/21 23:46	1
Bromomethane	ND		19	0.54	ug/m3			07/23/21 23:46	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/23/21 23:46	1
Chlorobenzene	ND		23	0.60	ug/m3			07/23/21 23:46	1
Chloroethane	ND		13	0.45	ug/m3			07/23/21 23:46	1
Chloroform	ND		24	0.78	ug/m3			07/23/21 23:46	1
Chloromethane	**0.45**	**J**	10	0.33	ug/m3			07/23/21 23:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B14-15V
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-4
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/23/21 23:46	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/23/21 23:46	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/23/21 23:46	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/23/21 23:46	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 23:46	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 23:46	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 23:46	1
Dichlorodifluoromethane	**1.6**	**J**	25	0.98	ug/m3			07/23/21 23:46	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/23/21 23:46	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/23/21 23:46	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/23/21 23:46	1
1,2-Dichloropropane	**1.7**	**J**	23	0.64	ug/m3			07/23/21 23:46	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/23/21 23:46	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/23/21 23:46	1
Ethanol	**80**	**J**	94	4.8	ug/m3			07/23/21 23:46	1
Ethylbenzene	**1.3**	**J**	22	1.1	ug/m3			07/23/21 23:46	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/23/21 23:46	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/23/21 23:46	1
Isopropanol	**18**	**J**	120	0.96	ug/m3			07/23/21 23:46	1
Methylene Chloride	**4.1**	**J B**	17	1.9	ug/m3			07/23/21 23:46	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/23/21 23:46	1
m,p-Xylene	**5.1**	**J**	22	2.7	ug/m3			07/23/21 23:46	1
Naphthalene	ND		26	3.1	ug/m3			07/23/21 23:46	1
o-Xylene	**2.0**	**J**	22	0.86	ug/m3			07/23/21 23:46	1
Styrene	ND		21	2.3	ug/m3			07/23/21 23:46	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/23/21 23:46	1
tert-Butyl alcohol (TBA)	**1.7**	**J**	15	1.1	ug/m3			07/23/21 23:46	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/23/21 23:46	1
Tetrachloroethene	**1.1**	**J**	34	1.1	ug/m3			07/23/21 23:46	1
Toluene	**16**	**J**	19	0.50	ug/m3			07/23/21 23:46	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/23/21 23:46	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/23/21 23:46	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/23/21 23:46	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/23/21 23:46	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/23/21 23:46	1
Trichloroethene	ND		27	0.96	ug/m3			07/23/21 23:46	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/23/21 23:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/23/21 23:46	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/23/21 23:46	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/23/21 23:46	1
Vinyl chloride	ND		13	0.41	ug/m3			07/23/21 23:46	1
Xylenes, Total	**7.1**	**J**	22	2.7	ug/m3			07/23/21 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*07/23/21 23:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 131*		*07/23/21 23:46*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/23/21 23:46*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B20-5V
Date Collected: 07/22/21 11:16
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-5
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.4**	**J**	16	0.50	ug/m3			07/24/21 00:38	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 00:38	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 00:38	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 00:38	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 00:38	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 00:38	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 00:38	1
Chloroform	ND		24	0.78	ug/m3			07/24/21 00:38	1
Chloromethane	ND		10	0.33	ug/m3			07/24/21 00:38	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 00:38	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 00:38	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 00:38	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 00:38	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 00:38	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 00:38	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 00:38	1
Dichlorodifluoromethane	**2.1**	**J**	25	0.98	ug/m3			07/24/21 00:38	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 00:38	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 00:38	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 00:38	1
1,2-Dichloropropane	**1.6**	**J**	23	0.64	ug/m3			07/24/21 00:38	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 00:38	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 00:38	1
Ethanol	**70**	**J**	94	4.8	ug/m3			07/24/21 00:38	1
Ethylbenzene	**4.6**	**J**	22	1.1	ug/m3			07/24/21 00:38	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 00:38	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 00:38	1
Isopropanol	**15**	**J**	120	0.96	ug/m3			07/24/21 00:38	1
Methylene Chloride	**4.1**	**J B**	17	1.9	ug/m3			07/24/21 00:38	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 00:38	1
m,p-Xylene	**14**	**J**	22	2.7	ug/m3			07/24/21 00:38	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 00:38	1
o-Xylene	**11**	**J**	22	0.86	ug/m3			07/24/21 00:38	1
Styrene	ND		21	2.3	ug/m3			07/24/21 00:38	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 00:38	1
tert-Butyl alcohol (TBA)	**2.1**	**J**	15	1.1	ug/m3			07/24/21 00:38	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 00:38	1
Tetrachloroethene	**26**	**J**	34	1.1	ug/m3			07/24/21 00:38	1
Toluene	**20**		19	0.50	ug/m3			07/24/21 00:38	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 00:38	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 00:38	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 00:38	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 00:38	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 00:38	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 00:38	1
Trichlorofluoromethane	**1.5**	**J**	28	1.3	ug/m3			07/24/21 00:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 00:38	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/24/21 00:38	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B20-5V
Date Collected: 07/22/21 11:16
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-5
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 00:38	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 00:38	1
Xylenes, Total	**25**		22	2.7	ug/m3			07/24/21 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*163*	*S1+*	*70 - 130*		*07/24/21 00:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 131*		*07/24/21 00:38*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 00:38*	*1*

Client Sample ID: B20-15V
Date Collected: 07/22/21 11:29
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-6
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.1**	**J**	16	0.50	ug/m3			07/24/21 01:29	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 01:29	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 01:29	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 01:29	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 01:29	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 01:29	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 01:29	1
Chloroform	ND		24	0.78	ug/m3			07/24/21 01:29	1
Chloromethane	**0.57**	**J**	10	0.33	ug/m3			07/24/21 01:29	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 01:29	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 01:29	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 01:29	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 01:29	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 01:29	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 01:29	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 01:29	1
Dichlorodifluoromethane	**2.3**	**J**	25	0.98	ug/m3			07/24/21 01:29	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 01:29	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 01:29	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 01:29	1
1,2-Dichloropropane	**1.7**	**J**	23	0.64	ug/m3			07/24/21 01:29	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 01:29	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 01:29	1
Ethanol	**78**	**J**	94	4.8	ug/m3			07/24/21 01:29	1
Ethylbenzene	**3.4**	**J**	22	1.1	ug/m3			07/24/21 01:29	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 01:29	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 01:29	1
Isopropanol	**18**	**J**	120	0.96	ug/m3			07/24/21 01:29	1
Methylene Chloride	**4.6**	**J B**	17	1.9	ug/m3			07/24/21 01:29	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 01:29	1
m,p-Xylene	ND		22	2.7	ug/m3			07/24/21 01:29	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 01:29	1
o-Xylene	**6.7**	**J**	22	0.86	ug/m3			07/24/21 01:29	1
Styrene	ND		21	2.3	ug/m3			07/24/21 01:29	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 01:29	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B20-15V
Date Collected: 07/22/21 11:29
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-6
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	**2.9**	**J**	15	1.1	ug/m3			07/24/21 01:29	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 01:29	1
Tetrachloroethene	**23**	**J**	34	1.1	ug/m3			07/24/21 01:29	1
Toluene	**23**		19	0.50	ug/m3			07/24/21 01:29	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 01:29	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 01:29	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 01:29	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 01:29	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 01:29	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 01:29	1
Trichlorofluoromethane	**1.9**	**J**	28	1.3	ug/m3			07/24/21 01:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 01:29	1
1,2,4-Trimethylbenzene	**1.7**	**J**	25	1.6	ug/m3			07/24/21 01:29	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 01:29	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 01:29	1
Xylenes, Total	**6.7**	**J**	22	2.7	ug/m3			07/24/21 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*07/24/21 01:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 131*		*07/24/21 01:29*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/24/21 01:29*	*1*

Client Sample ID: B22-5V
Date Collected: 07/22/21 12:05
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-7
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.7**	**J**	16	0.50	ug/m3			07/24/21 02:21	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 02:21	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 02:21	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 02:21	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 02:21	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 02:21	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 02:21	1
Chloroform	ND		24	0.78	ug/m3			07/24/21 02:21	1
Chloromethane	ND		10	0.33	ug/m3			07/24/21 02:21	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 02:21	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 02:21	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 02:21	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 02:21	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 02:21	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 02:21	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 02:21	1
Dichlorodifluoromethane	**1.8**	**J**	25	0.98	ug/m3			07/24/21 02:21	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 02:21	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 02:21	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 02:21	1
1,2-Dichloropropane	ND		23	0.64	ug/m3			07/24/21 02:21	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 02:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B22-5V
Date Collected: 07/22/21 12:05
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-7
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 02:21	1
Ethanol	**75**	**J**	94	4.8	ug/m3			07/24/21 02:21	1
Ethylbenzene	**1.6**	**J**	22	1.1	ug/m3			07/24/21 02:21	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 02:21	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 02:21	1
Isopropanol	**17**	**J**	120	0.96	ug/m3			07/24/21 02:21	1
Methylene Chloride	**4.0**	**J B**	17	1.9	ug/m3			07/24/21 02:21	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 02:21	1
m,p-Xylene	**5.0**	**J**	22	2.7	ug/m3			07/24/21 02:21	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 02:21	1
o-Xylene	**2.4**	**J**	22	0.86	ug/m3			07/24/21 02:21	1
Styrene	ND		21	2.3	ug/m3			07/24/21 02:21	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 02:21	1
tert-Butyl alcohol (TBA)	**2.4**	**J**	15	1.1	ug/m3			07/24/21 02:21	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 02:21	1
Tetrachloroethene	**2.2**	**J**	34	1.1	ug/m3			07/24/21 02:21	1
Toluene	**17**	**J**	19	0.50	ug/m3			07/24/21 02:21	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 02:21	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 02:21	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 02:21	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 02:21	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 02:21	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 02:21	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/24/21 02:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 02:21	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/24/21 02:21	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 02:21	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 02:21	1
Xylenes, Total	**7.4**	**J**	22	2.7	ug/m3			07/24/21 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*07/24/21 02:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 131*		*07/24/21 02:21*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/24/21 02:21*	*1*

Client Sample ID: B22-15V
Date Collected: 07/22/21 12:21
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-8
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.3**	**J**	16	0.50	ug/m3			07/24/21 03:13	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 03:13	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 03:13	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 03:13	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 03:13	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 03:13	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 03:13	1
Chloroform	**5.6**	**J**	24	0.78	ug/m3			07/24/21 03:13	1
Chloromethane	**0.42**	**J**	10	0.33	ug/m3			07/24/21 03:13	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B22-15V
Date Collected: 07/22/21 12:21
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-8
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 03:13	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 03:13	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 03:13	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 03:13	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 03:13	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 03:13	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 03:13	1
Dichlorodifluoromethane	**1.8**	**J**	25	0.98	ug/m3			07/24/21 03:13	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 03:13	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 03:13	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 03:13	1
1,2-Dichloropropane	**3.2**	**J**	23	0.64	ug/m3			07/24/21 03:13	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 03:13	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 03:13	1
Ethanol	**87**	**J**	94	4.8	ug/m3			07/24/21 03:13	1
Ethylbenzene	**9.7**	**J**	22	1.1	ug/m3			07/24/21 03:13	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 03:13	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 03:13	1
Isopropanol	**11**	**J**	120	0.96	ug/m3			07/24/21 03:13	1
Methylene Chloride	**4.0**	**J B**	17	1.9	ug/m3			07/24/21 03:13	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 03:13	1
m,p-Xylene	**40**		22	2.7	ug/m3			07/24/21 03:13	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 03:13	1
o-Xylene	**13**	**J**	22	0.86	ug/m3			07/24/21 03:13	1
Styrene	ND		21	2.3	ug/m3			07/24/21 03:13	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 03:13	1
tert-Butyl alcohol (TBA)	**2.4**	**J**	15	1.1	ug/m3			07/24/21 03:13	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 03:13	1
Tetrachloroethene	**2.1**	**J**	34	1.1	ug/m3			07/24/21 03:13	1
Toluene	**33**		19	0.50	ug/m3			07/24/21 03:13	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 03:13	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 03:13	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 03:13	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 03:13	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 03:13	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 03:13	1
Trichlorofluoromethane	**1.5**	**J**	28	1.3	ug/m3			07/24/21 03:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 03:13	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/24/21 03:13	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 03:13	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 03:13	1
Xylenes, Total	**53**		22	2.7	ug/m3			07/24/21 03:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*07/24/21 03:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 131*		*07/24/21 03:13*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 03:13*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B23-5V
Date Collected: 07/22/21 12:43
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-9
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.4**	**J**	16	0.50	ug/m3			07/24/21 04:05	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 04:05	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 04:05	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 04:05	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 04:05	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 04:05	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 04:05	1
Chloroform	**1.2**	**J**	24	0.78	ug/m3			07/24/21 04:05	1
Chloromethane	ND		10	0.33	ug/m3			07/24/21 04:05	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 04:05	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 04:05	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 04:05	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 04:05	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:05	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:05	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:05	1
Dichlorodifluoromethane	**1.8**	**J**	25	0.98	ug/m3			07/24/21 04:05	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 04:05	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 04:05	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 04:05	1
1,2-Dichloropropane	**3.7**	**J**	23	0.64	ug/m3			07/24/21 04:05	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 04:05	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 04:05	1
Ethanol	**89**	**J**	94	4.8	ug/m3			07/24/21 04:05	1
Ethylbenzene	**2.6**	**J**	22	1.1	ug/m3			07/24/21 04:05	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 04:05	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 04:05	1
Isopropanol	**10**	**J**	120	0.96	ug/m3			07/24/21 04:05	1
Methylene Chloride	**4.1**	**J B**	17	1.9	ug/m3			07/24/21 04:05	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 04:05	1
m,p-Xylene	**9.2**	**J**	22	2.7	ug/m3			07/24/21 04:05	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 04:05	1
o-Xylene	**5.0**	**J**	22	0.86	ug/m3			07/24/21 04:05	1
Styrene	ND		21	2.3	ug/m3			07/24/21 04:05	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 04:05	1
tert-Butyl alcohol (TBA)	**3.1**	**J**	15	1.1	ug/m3			07/24/21 04:05	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 04:05	1
Tetrachloroethene	**3.3**	**J**	34	1.1	ug/m3			07/24/21 04:05	1
Toluene	**36**		19	0.50	ug/m3			07/24/21 04:05	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 04:05	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 04:05	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 04:05	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 04:05	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 04:05	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 04:05	1
Trichlorofluoromethane	**2.8**	**J**	28	1.3	ug/m3			07/24/21 04:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 04:05	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/24/21 04:05	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B23-5V
Date Collected: 07/22/21 12:43
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-9
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 04:05	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 04:05	1
Xylenes, Total	**14**	**J**	22	2.7	ug/m3			07/24/21 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*07/24/21 04:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 131*		*07/24/21 04:05*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 04:05*	*1*

Client Sample ID: B23-15V
Date Collected: 07/22/21 12:29
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-10
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.7**	**J**	16	0.50	ug/m3			07/24/21 04:56	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/24/21 04:56	1
Bromoform	ND		52	1.8	ug/m3			07/24/21 04:56	1
Bromomethane	ND		19	0.54	ug/m3			07/24/21 04:56	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/24/21 04:56	1
Chlorobenzene	ND		23	0.60	ug/m3			07/24/21 04:56	1
Chloroethane	ND		13	0.45	ug/m3			07/24/21 04:56	1
Chloroform	ND		24	0.78	ug/m3			07/24/21 04:56	1
Chloromethane	**0.55**	**J**	10	0.33	ug/m3			07/24/21 04:56	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/24/21 04:56	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/24/21 04:56	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/24/21 04:56	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/24/21 04:56	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:56	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:56	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/24/21 04:56	1
Dichlorodifluoromethane	**2.1**	**J**	25	0.98	ug/m3			07/24/21 04:56	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/24/21 04:56	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/24/21 04:56	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/24/21 04:56	1
1,2-Dichloropropane	**5.2**	**J**	23	0.64	ug/m3			07/24/21 04:56	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/24/21 04:56	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/24/21 04:56	1
Ethanol	**95**		94	4.8	ug/m3			07/24/21 04:56	1
Ethylbenzene	**6.7**	**J**	22	1.1	ug/m3			07/24/21 04:56	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/24/21 04:56	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/24/21 04:56	1
Isopropanol	**12**	**J**	120	0.96	ug/m3			07/24/21 04:56	1
Methylene Chloride	**4.4**	**J B**	17	1.9	ug/m3			07/24/21 04:56	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/24/21 04:56	1
m,p-Xylene	**23**		22	2.7	ug/m3			07/24/21 04:56	1
Naphthalene	ND		26	3.1	ug/m3			07/24/21 04:56	1
o-Xylene	**9.0**	**J**	22	0.86	ug/m3			07/24/21 04:56	1
Styrene	ND		21	2.3	ug/m3			07/24/21 04:56	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/24/21 04:56	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B23-15V
Date Collected: 07/22/21 12:29
Date Received: 07/22/21 17:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-65144-10
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	**4.1**	**J**	15	1.1	ug/m3			07/24/21 04:56	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/24/21 04:56	1
Tetrachloroethene	**5.4**	**J**	34	1.1	ug/m3			07/24/21 04:56	1
Toluene	**41**		19	0.50	ug/m3			07/24/21 04:56	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/24/21 04:56	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/24/21 04:56	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/24/21 04:56	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/24/21 04:56	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/24/21 04:56	1
Trichloroethene	ND		27	0.96	ug/m3			07/24/21 04:56	1
Trichlorofluoromethane	**2.1**	**J**	28	1.3	ug/m3			07/24/21 04:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/24/21 04:56	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/24/21 04:56	1
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/24/21 04:56	1
Vinyl chloride	ND		13	0.41	ug/m3			07/24/21 04:56	1
Xylenes, Total	**32**		22	2.7	ug/m3			07/24/21 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*07/24/21 04:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 131*		*07/24/21 04:56*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 04:56*	*1*

Surrogate Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Air

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB	DCA	TOL						
Lab Sample ID	Client Sample ID	(70-130)	(70-131)	(70-130)						
570-65144-1	B13-5V	105	108	104						
570-65144-2	B13-15V	107	108	102						
570-65144-3	B14-5V	105	109	103						
570-65144-4	B14-15V	104	109	103						
570-65144-5	B20-5V	163 S1+	110	102						
570-65144-6	B20-15V	117	106	101						
570-65144-7	B22-5V	104	104	101						
570-65144-8	B22-15V	104	106	102						
570-65144-9	B23-5V	112	106	102						
570-65144-10	B23-15V	110	107	102						
LCS 570-166129/3	Lab Control Sample	104	104	102						
LCSD 570-166129/4	Lab Control Sample Dup	102	104	103						
MB 570-166129/6	Method Blank	103	106	101						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-166123/6
MatriA: x ir
x nalysis Batch: 166123

Client Sample ID: Method Blank
Prep Type: Total/Nx

x nalyte	MB Result	MB QualiUer	RL	MDL	z nit	D	Prepared	x nalyFed	Dil 4ac
Benzene	ND		16	0.50	ug/m3			07/23/21 13:49	1
Bromodichloromethane	ND		34	0.74	ug/m3			07/23/21 13:49	1
Bromoform	ND		52	1.8	ug/m3			07/23/21 13:49	1
Bromomethane	ND		19	0.54	ug/m3			07/23/21 13:49	1
Carbon tetrachloride	ND		31	1.3	ug/m3			07/23/21 13:49	1
Chlorobenzene	ND		23	0.60	ug/m3			07/23/21 13:49	1
Chloroethane	ND		13	0.45	ug/m3			07/23/21 13:49	1
Chloroform	ND		24	0.78	ug/m3			07/23/21 13:49	1
Chloromethane	ND		10	0.33	ug/m3			07/23/21 13:49	1
cis-1,2-Dichloroethene	ND		20	0.54	ug/m3			07/23/21 13:49	1
cis-1,3-Dichloropropene	ND		23	0.98	ug/m3			07/23/21 13:49	1
Dibromochloromethane	ND		43	1.3	ug/m3			07/23/21 13:49	1
1,2-Dibromoethane	ND		38	1.3	ug/m3			07/23/21 13:49	1
1,2-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 13:49	1
1,3-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 13:49	1
1,4-Dichlorobenzene	ND		30	1.5	ug/m3			07/23/21 13:49	1
Dichlorodifluoromethane	ND		25	0.98	ug/m3			07/23/21 13:49	1
1,1-Dichloroethane	ND		20	0.42	ug/m3			07/23/21 13:49	1
1,2-Dichloroethane	ND		20	0.59	ug/m3			07/23/21 13:49	1
1,1-Dichloroethene	ND		20	0.69	ug/m3			07/23/21 13:49	1
1,2-Dichloropropane	ND		23	0.64	ug/m3			07/23/21 13:49	1
1,1-Difluoroethane	ND		140	0.99	ug/m3			07/23/21 13:49	1
Di-isopropyl ether (DIPE)	ND		21	1.5	ug/m3			07/23/21 13:49	1
Ethanol	ND		94	4.8	ug/m3			07/23/21 13:49	1
Ethylbenzene	ND		22	1.1	ug/m3			07/23/21 13:49	1
Ethyl-t-butyl ether (ETBE)	ND		21	1.2	ug/m3			07/23/21 13:49	1
4-Ethyltoluene	ND		25	1.2	ug/m3			07/23/21 13:49	1
Isopropanol	ND		120	0.96	ug/m3			07/23/21 13:49	1
Methylene Chloride	3.792	J	17	1.9	ug/m3			07/23/21 13:49	1
Methyl tert-butyl ether	ND		18	1.2	ug/m3			07/23/21 13:49	1
m,p-Xylene	ND		22	2.7	ug/m3			07/23/21 13:49	1
Naphthalene	ND		26	3.1	ug/m3			07/23/21 13:49	1
o-Xylene	ND		22	0.86	ug/m3			07/23/21 13:49	1
Styrene	ND		21	2.3	ug/m3			07/23/21 13:49	1
tert-Amyl Methyl Ether (TAME)	ND		21	1.8	ug/m3			07/23/21 13:49	1
tert-Butyl alcohol (TBA)	ND		15	1.1	ug/m3			07/23/21 13:49	1
1,1,2,2-Tetrachloroethane	ND		34	1.1	ug/m3			07/23/21 13:49	1
Tetrachloroethene	ND		34	1.1	ug/m3			07/23/21 13:49	1
Toluene	ND		19	0.50	ug/m3			07/23/21 13:49	1
trans-1,2-Dichloroethene	ND		20	0.50	ug/m3			07/23/21 13:49	1
trans-1,3-Dichloropropene	ND		23	0.96	ug/m3			07/23/21 13:49	1
1,2,4-Trichlorobenzene	ND		37	4.9	ug/m3			07/23/21 13:49	1
1,1,1-Trichloroethane	ND		27	0.79	ug/m3			07/23/21 13:49	1
1,1,2-Trichloroethane	ND		27	0.76	ug/m3			07/23/21 13:49	1
Trichloroethene	ND		27	0.96	ug/m3			07/23/21 13:49	1
Trichlorofluoromethane	ND		28	1.3	ug/m3			07/23/21 13:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		38	2.3	ug/m3			07/23/21 13:49	1
1,2,4-Trimethylbenzene	ND		25	1.6	ug/m3			07/23/21 13:49	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166123/6
Matrix: Air
Analysis Batch: 166123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		25	1.0	ug/m3			07/23/21 13:49	1
Vinyl chloride	ND		13	0.41	ug/m3			07/23/21 13:49	1
Xylenes, Total	ND		22	2.7	ug/m3			07/23/21 13:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/23/21 13:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 131*		*07/23/21 13:49*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/23/21 13:49*	*1*

Lab Sample ID: LCS 570-166123/f
Matrix: Air
Analysis Batch: 166123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	79.9	81.16		ug/m3		102	68 - 134
Bromodichloromethane	168	177.7		ug/m3		106	69 - 132
Bromoform	258	293.4		ug/m3		114	70 - 130
Bromomethane	97.1	102.9		ug/m3		106	65 - 130
Carbon tetrachloride	157	164.7		ug/m3		105	68 - 133
Chlorobenzene	115	117.4		ug/m3		102	70 - 130
Chloroethane	66.0	70.98		ug/m3		108	66 - 134
Chloroform	122	132.1		ug/m3		108	67 - 131
Chloromethane	51.6	54.72		ug/m3		106	60 - 137
cis-1,2-Dichloroethene	99.1	103.9		ug/m3		105	70 - 130
cis-1,3-Dichloropropene	113	118.3		ug/m3		104	70 - 134
Dibromochloromethane	213	224.4		ug/m3		105	70 - 130
1,2-Dibromoethane	192	200.5		ug/m3		104	70 - 130
1,2-Dichlorobenzene	150	152.1		ug/m3		101	68 - 130
1,3-Dichlorobenzene	150	161.7		ug/m3		108	65 - 130
1,4-Dichlorobenzene	150	162.3		ug/m3		108	64 - 130
Dichlorodifluoromethane	124	119.5		ug/m3		97	57 - 138
1,1-Dichloroethane	101	107.9		ug/m3		107	69 - 130
1,2-Dichloroethane	101	108.4		ug/m3		107	65 - 136
1,1-Dichloroethene	99.1	106.6		ug/m3		108	64 - 135
1,2-Dichloropropane	116	122.3		ug/m3		106	68 - 132
1,1-Difluoroethane	67.5	74.08	J	ug/m3		110	57 - 146
Di-isopropyl ether (DIPE)	104	121.2		ug/m3		116	58 - 144
Ethanol	188	196.9		ug/m3		105	61 - 133
Ethylbenzene	109	111.7		ug/m3		103	70 - 130
Ethyl-t-butyl ether (ETBE)	104	114.0		ug/m3		109	67 - 130
4-Ethyltoluene	123	129.6		ug/m3		105	69 - 130
Methylene Chloride	86.8	80.18		ug/m3		92	65 - 130
Methyl tert-butyl ether	90.1	94.46		ug/m3		105	70 - 130
m,p-Xylene	217	263.0		ug/m3		121	70 - 130
Naphthalene	131	139.2		ug/m3		106	36 - 146
o-Xylene	109	113.5		ug/m3		105	68 - 130
Styrene	106	110.1		ug/m3		103	70 - 130
tert-Amyl Methyl Ether (TAME)	104	109.8		ug/m3		105	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166123/f
MatriA: x ir
x nalysis Batch: 166123

Client Sample ID: Lab Control Sample
Prep Type: Total/Nx

x nalyte			Spike x dded	LCS Result	LCS QualiUer	z nit	D	%Rec	%Rec. Limits		
tert-Butyl alcohol (TBA)			152	170.5		ug/m3		112	65 - 132		
1,1,2,2-Tetrachloroethane			172	186.6		ug/m3		109	70 - 130		
Tetrachloroethene			170	169.9		ug/m3		100	70 - 130		
Toluene			94.2	95.09		ug/m3		101	70 - 130		
trans-1,2-Dichloroethene			99.1	103.3		ug/m3		104	70 - 130		
trans-1,3-Dichloropropene			113	119.8		ug/m3		106	66 - 142		
1,2,4-Trichlorobenzene			186	190.3		ug/m3		103	51 - 134		
1,1,1-Trichloroethane			136	145.0		ug/m3		106	67 - 135		
1,1,2-Trichloroethane			136	143.8		ug/m3		105	69 - 131		
Trichloroethene			134	140.9		ug/m3		105	69 - 130		
Trichlorofluoromethane			140	154.7		ug/m3		110	62 - 139		
1,1,2-Trichloro-1,2,2-trifluoroetha ne			192	211.5		ug/m3		110	70 - 130		
1,2,4-Trimethylbenzene			123	137.2		ug/m3		112	68 - 130		
1,3,5-Trimethylbenzene			123	127.4		ug/m3		104	69 - 130		
Vinyl chloride			63.9	68.68		ug/m3		107	65 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 131*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 570-166123/9
MatriA: x ir
x nalysis Batch: 166123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/Nx

x nalyte			Spike x dded	LCSD Result	LCSD QualiUer	z nit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			79.9	82.27		ug/m3		103	68 - 134	1	25
Bromodichloromethane			168	180.5		ug/m3		108	69 - 132	2	25
Bromoform			258	290.8		ug/m3		113	70 - 130	1	25
Bromomethane			97.1	102.1		ug/m3		105	65 - 130	1	25
Carbon tetrachloride			157	166.4		ug/m3		106	68 - 133	1	25
Chlorobenzene			115	117.2		ug/m3		102	70 - 130	0	25
Chloroethane			66.0	70.75		ug/m3		107	66 - 134	0	25
Chloroform			122	132.9		ug/m3		109	67 - 131	1	25
Chloromethane			51.6	54.29		ug/m3		105	60 - 137	1	25
cis-1,2-Dichloroethene			99.1	103.4		ug/m3		104	70 - 130	0	25
cis-1,3-Dichloropropene			113	120.5		ug/m3		106	70 - 134	2	25
Dibromochloromethane			213	224.6		ug/m3		105	70 - 130	0	25
1,2-Dibromoethane			192	200.0		ug/m3		104	70 - 130	0	25
1,2-Dichlorobenzene			150	150.0		ug/m3		100	68 - 130	1	25
1,3-Dichlorobenzene			150	160.4		ug/m3		107	65 - 130	1	25
1,4-Dichlorobenzene			150	161.5		ug/m3		107	64 - 130	0	25
Dichlorodifluoromethane			124	116.5		ug/m3		94	57 - 138	2	25
1,1-Dichloroethane			101	108.1		ug/m3		107	69 - 130	0	25
1,2-Dichloroethane			101	109.0		ug/m3		108	65 - 136	1	25
1,1-Dichloroethene			99.1	106.7		ug/m3		108	64 - 135	0	25
1,2-Dichloropropane			116	124.1		ug/m3		107	68 - 132	1	25
1,1-Difluoroethane			67.5	73.37	J	ug/m3		109	57 - 146	1	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166123/9
MatriA: x ir
x nalysis Batch: 166123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/Nx

x nalyte			Spike x dded	LCSD Result	LCSD QualiUer	z nit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-isopropyl ether (DIPE)			104	122.3		ug/m3		117	58 - 144	1	25
Ethanol			188	196.4		ug/m3		104	61 - 133	0	25
Ethylbenzene			109	112.9		ug/m3		104	70 - 130	1	25
Ethyl-t-butyl ether (ETBE)			104	114.2		ug/m3		109	67 - 130	0	25
4-Ethyltoluene			123	128.2		ug/m3		104	69 - 130	1	25
Methylene Chloride			86.8	79.59		ug/m3		92	65 - 130	1	25
Methyl tert-butyl ether			90.1	94.83		ug/m3		105	70 - 130	0	25
m,p-Xylene			217	261.7		ug/m3		121	70 - 130	0	25
Naphthalene			131	138.1		ug/m3		105	36 - 146	1	25
o-Xylene			109	113.6		ug/m3		105	68 - 130	0	25
Styrene			106	109.0		ug/m3		102	70 - 130	1	25
tert-Amyl Methyl Ether (TAME)			104	110.9		ug/m3		106	70 - 130	1	25
tert-Butyl alcohol (TBA)			152	169.6		ug/m3		112	65 - 132	1	25
1,1,2,2-Tetrachloroethane			172	185.5		ug/m3		108	70 - 130	1	25
Tetrachloroethene			170	169.2		ug/m3		100	70 - 130	0	25
Toluene			94.2	95.23		ug/m3		101	70 - 130	0	25
trans-1,2-Dichloroethene			99.1	103.3		ug/m3		104	70 - 130	0	25
trans-1,3-Dichloropropene			113	121.4		ug/m3		107	66 - 142	1	25
1,2,4-Trichlorobenzene			186	190.6		ug/m3		103	51 - 134	0	25
1,1,1-Trichloroethane			136	145.2		ug/m3		106	67 - 135	0	25
1,1,2-Trichloroethane			136	145.4		ug/m3		107	69 - 131	1	25
Trichloroethene			134	141.9		ug/m3		106	69 - 130	1	25
Trichlorofluoromethane			140	153.9		ug/m3		110	62 - 139	1	25
1,1,2-Trichloro-1,2,2-trifluoroetha ne			192	211.9		ug/m3		111	70 - 130	0	25
1,2,4-Trimethylbenzene			123	136.3		ug/m3		111	68 - 130	1	25
1,3,5-Trimethylbenzene			123	127.5		ug/m3		104	69 - 130	0	25
Vinyl chloride			63.9	68.32		ug/m3		107	65 - 130	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

GC/MS VOA

Analysis Batch: 166129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65144-1	B13-5V	Total/NA	Air	8260B	
570-65144-2	B13-15V	Total/NA	Air	8260B	
570-65144-3	B14-5V	Total/NA	Air	8260B	
570-65144-4	B14-15V	Total/NA	Air	8260B	
570-65144-5	B20-5V	Total/NA	Air	8260B	
570-65144-6	B20-15V	Total/NA	Air	8260B	
570-65144-7	B22-5V	Total/NA	Air	8260B	
570-65144-8	B22-15V	Total/NA	Air	8260B	
570-65144-9	B23-5V	Total/NA	Air	8260B	
570-65144-10	B23-15V	Total/NA	Air	8260B	
MB 570-166129/6	Method Blank	Total/NA	Air	8260B	
LCS 570-166129/3	Lab Control Sample	Total/NA	Air	8260B	
LCSD 570-166129/4	Lab Control Sample Dup	Total/NA	Air	8260B	

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Client Sample ID: B13-5V
Date Collected: 07/22/21 10:14
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/23/21 21:11	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B13-15V
Date Collected: 07/22/21 10:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/23/21 22:03	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B14-5V
Date Collected: 07/22/21 10:24
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/23/21 22:55	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B14-15V
Date Collected: 07/22/21 10:47
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/23/21 23:46	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B20-5V
Date Collected: 07/22/21 11:16
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-5
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 00:38	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B20-15V
Date Collected: 07/22/21 11:29
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-6
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 01:29	KA4W	ECL 2
	Instrument ID: GCMSNN									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Client Sample ID: B22-5V
Date Collected: 07/22/21 12:05
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-7
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 02:21	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B22-15V
Date Collected: 07/22/21 12:21
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-8
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 03:13	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B23-5V
Date Collected: 07/22/21 12:43
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-9
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 04:05	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B23-15V
Date Collected: 07/22/21 12:29
Date Received: 07/22/21 17:00

Lab Sample ID: 570-65144-10
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166129	07/24/21 04:56	KA4W	ECL 2
	Instrument ID: GCMSNN									

Laboratory References:

ECL = Eurofins Calscience LLC, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Citadel Environmental Services Inc
Project/Site: East 228th Street

Job ID: 570-65211-2

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0262	22-29-L2
California	gos Anueles Co3nty Sanitation Districts	20209	09-M0-L2
California	SCAQ4 D gAP	27gA0929	22-M0-L2
California	State	L911	09-M0-L2
G3am	State	L2-00MR	06-LL-LL
Nevada	State	CA00222	07-M2-L2
Oreuon	NEgAP	CAM00002	02-M0-LL
USDA	US Federal Prourams	PMM0-L0-000Mf	0L-20-LM
Washinuton	State	C926-28	20-22-L2

Method Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
5030C	Collection/Prep Tedlar Bag (P&T)	SW846	ECL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL = Eurofins Calscience LLC, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65144-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-65144-1	B13-5V	Air	07/22/21 10:14	07/22/21 17:00
570-65144-2	B13-15V	Air	07/22/21 10:05	07/22/21 17:00
570-65144-3	B14-5V	Air	07/22/21 10:24	07/22/21 17:00
570-65144-4	B14-15V	Air	07/22/21 10:47	07/22/21 17:00
570-65144-5	B20-5V	Air	07/22/21 11:16	07/22/21 17:00
570-65144-6	B20-15V	Air	07/22/21 11:29	07/22/21 17:00
570-65144-7	B22-5V	Air	07/22/21 12:05	07/22/21 17:00
570-65144-8	B22-15V	Air	07/22/21 12:21	07/22/21 17:00
570-65144-9	B23-5V	Air	07/22/21 12:43	07/22/21 17:00
570-65144-10	B23-15V	Air	07/22/21 12:29	07/22/21 17:00

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-65144 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 7-22-21

PAGE: 1 OF 1

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Scott Grasse

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH __ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	B13-5V	7-22-21	1014	Vapor	1									X								
2	B13-15V	"	1005	"	"									X								
3	B14-5V	"	1024	"	"									X								
4	B14-15V	"	1047	"	"									X								
5	B20-5V	"	1116	"	"									X								
6	B20-15V	"	1129	"	"									X								
7	B22-5V	"	1205	"	"									X								
8	B22-15V	"	1221	"	"									X								
9	B23-5V	"	1243	"	"									X								
10	B23-15V	"	1229	"	"									X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 7-22-21	Time: 1415
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 7/22/21	Time: 1518
Relinquished by: (Signature)	Received by: (Signature/Affiliation) ECI	Date: 7/22/21	Time: 1700

06/02/14 Revision

Login Sample Receipt Checklist

Client: Citadel Environmental Services Inc

Job Number: 570-65144-1

Login Number: 65144
List Number: 1
Creator: Cruise, Noel

List Source: Eurofins Calscience LLC

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-65245-1
Client Project/Site: East 118th Street

For:
Citadel Environmental Services Inc
1725 Victory Blvd
Glendale, California 91201

Attn: Scott Grasse

Authorized for release by:
7/30/2021 2:15:18 PM

Erick Ovalle, Project Manager
(714)895-5494
erick.ovalle@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65245-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	mTese coh h only used abbreviations h ay or h ay not be present in tTis report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-65245-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-65245-1

Comments
No additional comments.

Receipt
The samples were received on 7/23/2021 6:05 PM. Unless otherwise noted below, the samples arrived in good condition.

Air Toxics
Method 8260B: The method blank for analytical batch 570-166337, 570-166339, 570-166571, 570-166372, 570-166374, and 570-166377 contained Methylene Chloride above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL)

Method 8260B: Surrogate recovery for the following sample was outside control limits: B2-5V (570-65245-7) and B11-5V (570-65245-37). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: B15-5V — Lab Sample ID: 570-65245-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T6	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l Biomofon6	5T	J	14	0T7h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	7Th	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	9C	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T1	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	C0	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	7T1	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. T4	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	7T5	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	60		C9	0T50	g38S.	C		h160z	Nbadi8A2
NmasBiomofigomoS naBdt n	CT4	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	CC	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B15-15V — Lab Sample ID: 570-65245-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	5T	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T45	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T1	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	7T5	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	9h		94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	C1	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T5	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	h T5	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. T6	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T5	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C5	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	57		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C1	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B19-5V — Lab Sample ID: 570-65245-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T1	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T46	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T4	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	h T6	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	CC0		94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T1	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	C.	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T6	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	9TC	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. Th	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	5TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. T6	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	64		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnS esdi anParnPgiaPT

Client Sample ID: B19-15V — Lab Sample ID: 570-65245-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T6C	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T1	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	CC	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	94		94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	6T1	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	C0	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T1	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	. 0		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	CC	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T4	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	CT9	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	7.		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	4C		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B1-5V — Lab Sample ID: 570-65245-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T4C	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T4	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	CC0		94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T6	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	1C	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T4	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	CC	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5TC	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
c ayrnt n	1T4	J	1C	1T	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T6	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. T5	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	5.		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C6	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B1-15V — Lab Sample ID: 570-65245-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T9	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T5C	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T1	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	6T1	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	96		94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	6T0	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	Ch	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T1	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	1h		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	CC	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	1T1	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	57		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NnaS naByibnt unt n	CT7	J	15	CT6	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	. 9		11	1T7	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot c gS S dny EonP t oaet sigEn ndEeosBnS esdi anPamnPgiaPT

Client Sample ID: B2-5V — Lab Sample ID: 570-65245-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	9T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT7	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
v aBdt oi	44	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	hTl	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. C	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomsEn	6TC	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	15		11	1T7	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T7	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	4h		. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	60		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	15		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B2-15V — Lab Sample ID: 570-65245-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CTh	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT7	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T7	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. 5	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	. Tl	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	16	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomsEn	5Tl	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	CC	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T4	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	6T	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	45		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C6	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B4-5V — Lab Sample ID: 570-65245-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoforS	7T6	J	14	0T7h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T4	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4.	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	6T5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 1	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomsEn	5T4	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	1h		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	C1	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T6	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	9T4	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	4C		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NmaS naByibnt unt n	CT9	J	15	CT6	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	40		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B4-15V — Lab Sample ID: 570-65245-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT5	J	C6	0T50	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B4-15V (Continued)

Lab Sample ID: 570-65245-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DesBiomoEefigomoS naBdt n	1T	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	6T0	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	41	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1C	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. .	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T0	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	9C		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. .		11	0Th6	g38S.	C		h160z	Nbadi8A2
cayrnt n	1T9	J	1C	1T	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T5	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. T1	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	44		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NnaS naByibnt unt n	1T4	J	15	CT6	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C10		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B7-5V

Lab Sample ID: 570-65245-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CTh	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	4T7	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	50	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	4T0	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 0	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T7	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C7	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	7T0	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	4T0	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	1TC	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 4		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	14		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B7-15V

Lab Sample ID: 570-65245-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT4	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT7	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	4T6	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. 1	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	5T1	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	1h	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T0	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	11		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	hT6	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	CT5	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 5		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	. C		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B8-5V

Lab Sample ID: 570-65245-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CTC	J	C6	0T50	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnS esdi anPamnPgiaPT

Client Sample ID: B8-5V (Continued)

Lab Sample ID: 570-65245-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C,1-DesBiomopropdt n	6Th	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. h	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	. T6	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopropdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T5	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5Th	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	CT9	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	46		C9	0T50	g38S.	C		h160z	Nbadi8A2
NnasBiomofigomoS naBdt n	CT4	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C9	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B8-15V

Lab Sample ID: 570-65245-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT4	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopropdt n	5T9	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. 9	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	5TC	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopropdt oi	17	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	. T9	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	10	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	7T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T5	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	CT6	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	4C		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	17		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B10-5V

Lab Sample ID: 570-65245-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT5	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopropdt n	5Th	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4C	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	. Th	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopropdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5TC	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C4	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	6T7	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T0	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C0	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	4.		C9	0T50	g38S.	C		h160z	Nbadi8A2
NnasBiomofigomoS naBdt n	6T7	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	1C	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B10-15V

Lab Sample ID: 570-65245-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	4T1	J	15	0T9h	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnSesdi anPamnPgiaPT

Client Sample ID: B10-15V (Continued)

Lab Sample ID: 570-65245-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C,1-DesBiomopmopdt n	6TC	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
C,C-DefigomonaBdt n	CTC	J	C40	0T99	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4C	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T9	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T9	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C1	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5TD	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1Th	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	6T4	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	41		C9	0T50	g38S.	C		h160z	Nbadi8A2
NmasBiomofigomoS naBdt n	CT7	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C7	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B9-5V

Lab Sample ID: 570-65245-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT9	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEfigomoS naBdt n	1T7	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	. T6	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	41	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	5T9	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5TD	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	1h		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	C4	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T5	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	1T6	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 1		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	41		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B9-15V

Lab Sample ID: 570-65245-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT4	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEfigomoS naBdt n	4T6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	4T4	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4.	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	4T5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4Th	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	Ch	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	7T7	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. TD	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. h		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	16		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B6-5V

Lab Sample ID: 570-65245-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT1	J	C6	0T50	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B6-5V (Continued)

Lab Sample ID: 570-65245-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
l Biomofor6	C71	J	14	017h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	C7h	J	15	019h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	. T5	J	1.	0164	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. h	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	C7h	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 1	J	C10	0196	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	475	J z	C7	C79	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	hTC	J	11	177	g38S.	C		h160z	Nbadi8A2
o-Xyint n	47C	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	174	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. T9	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	1h		C9	0150	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C1	J	11	177	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B6-15V

Lab Sample ID: 570-65245-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T0	J	C6	0150	g38S.	C		h160z	Nbadi8A2
l Biomofor6	577	J	14	017h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	C76	J	15	019h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	. T6	J	1.	0164	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. 9	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	C5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	17	J	C10	0196	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	475	J z	C7	C79	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	70		11	177	g38S.	C		h160z	Nbadi8A2
o-Xyint n	17		11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	C77	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C77	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	19		C9	0150	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	97		11	177	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B5-5V

Lab Sample ID: 570-65245-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	C76	J	C6	0150	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T 9	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	C7h	J	15	019h	g38S.	C		h160z	Nbadi8A2
C,C-DesBiomonaBnt n	C70	J	10	0169	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	47C	J	1.	0164	g38S.	C		h160z	Nbadi8A2
v aBdt oi	5C	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	179	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 6	J	C10	0196	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	476	J z	C7	C79	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C.	J	11	177	g38S.	C		h160z	Nbadi8A2
o-Xyint n	674	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	179	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	174	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. C		C9	0150	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C9	J	11	177	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B5-15V — Lab Sample ID: 570-65245-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1TC	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T46	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,C-DesBiomonaBnt n	9Th	J	10	0T69	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopropdt n	. T	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. h	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	C5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopropdt oi	16	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	64		11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	1C	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anraz gayi disoBoi (Nz 2)	. T6	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	17		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	h5		11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B25-5V — Lab Sample ID: 570-65245-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT9	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T44	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T4	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopropdt n	4T	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	41	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	. T	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopropdt oi	19	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T7	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C1	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5T1	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anraz gayi disoBoi (Nz 2)	1Th	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	6T0	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 6		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C7	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B25-15V — Lab Sample ID: 570-65245-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT5	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,C-DesBiomonaBnt n	CTl	J	10	0T69	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopropdt n	4TC	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4C	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1Th	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopropdt oi	1h	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T5	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5TC	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anraz gayi disoBoi (Nz 2)	1TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. C		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	Ch	J	11	1T7	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnS esdi anPamnPgiaPT

Client Sample ID: B26-5V — Lab Sample ID: 570-65245-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	0T97	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CTh	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	. T9	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	41	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	CT6	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 1	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T5	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	6T6	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. Tl	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	19		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	9Th	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B26-15V — Lab Sample ID: 570-65245-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CTC	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	. T7	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	. 9	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	CT5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	1h	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	6T	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	1Th	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	1T0	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	19		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	9TC	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B27-5V — Lab Sample ID: 570-65245-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	0T70	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoforS	CTC	J	14	0T7h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT9	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	7T5	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
C,C-DefigomonaBdt n	CTl	J	C40	0T99	g38S.	C		h160z	Nbadi8A2
v aBdt oi	61	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	CT4	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 7	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T7	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	5T	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	1T5	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	4TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 9		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	7Th	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B27-15V — Lab Sample ID: 570-65245-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	0T96	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoforS	1T5	J	14	0T7h	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnSesdi anPamnPgiaPT

Client Sample ID: B27-15V (Continued)

Lab Sample ID: 570-65245-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
l BiomoS naBdt n	0T50	J	C0	0T .	g38S .	C		h160z	Nbadi8A2
DesBiomoEdigomoS naBdt n	CT9	J	15	0T9h	g38S .	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	7TC	J	1.	0T64	g38S .	C		h160z	Nbadi8A2
C,C-Dedigomona8dt n	CTC	J	C40	0T99	g38S .	C		h160z	Nbadi8A2
va8dt oi	6C	J	94	4Th	g38S .	C		h160z	Nbadi8A2
va8yibnt unt n	CT4	J	11	CTC	g38S .	C		h160z	Nbadi8A2
IPopmopdt oi	. 7	J	C10	0T96	g38S .	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T7	J z	C7	CT9	g38S .	C		h160z	Nbadi8A2
S ,p-Xyint n	5T6	J	11	1T7	g38S .	C		h160z	Nbadi8A2
o-Xyint n	1T4	J	11	0Th6	g38S .	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T4	J	C5	CTC	g38S .	C		h160z	Nbadi8A2
Nbignt n	. 6		C9	0T50	g38S .	C		h160z	Nbadi8A2
Xyint nP, Nbadi	hT0	J	11	1T7	g38S .	C		h160z	Nbadi8A2

Client Sample ID: B24-5V

Lab Sample ID: 570-65245-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	CT0	J	C6	0T50	g38S .	C		h160z	Nbadi8A2
l BiomoforS	CTC	J	14	0T7h	g38S .	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T41	J	C0	0T .	g38S .	C		h160z	Nbadi8A2
DesBiomoEdigomoS naBdt n	CT9	J	15	0T9h	g38S .	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T0	J	1.	0T64	g38S .	C		h160z	Nbadi8A2
C,C-Dedigomona8dt n	CT1	J	C40	0T99	g38S .	C		h160z	Nbadi8A2
va8dt oi	5.	J	94	4Th	g38S .	C		h160z	Nbadi8A2
va8yibnt unt n	CT6	J	11	CTC	g38S .	C		h160z	Nbadi8A2
IPopmopdt oi	. C	J	C10	0T96	g38S .	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T4	J z	C7	CT9	g38S .	C		h160z	Nbadi8A2
S ,p-Xyint n	5Th	J	11	1T7	g38S .	C		h160z	Nbadi8A2
o-Xyint n	1T4	J	11	0Th6	g38S .	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T6	J	C5	CTC	g38S .	C		h160z	Nbadi8A2
Nbignt n	19		C9	0T50	g38S .	C		h160z	Nbadi8A2
Xyint nP, Nbadi	hT1	J	11	1T7	g38S .	C		h160z	Nbadi8A2

Client Sample ID: B24-15V

Lab Sample ID: 570-65245-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1TC	J	C6	0T50	g38S .	C		h160z	Nbadi8A2
l BiomoforS	6T5	J	14	0T7h	g38S .	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T50	J	C0	0T .	g38S .	C		h160z	Nbadi8A2
DesBiomoEdigomoS naBdt n	CT7	J	15	0T9h	g38S .	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	4T7	J	1.	0T64	g38S .	C		h160z	Nbadi8A2
va8dt oi	49	J	94	4Th	g38S .	C		h160z	Nbadi8A2
va8yibnt unt n	. T7	J	11	CTC	g38S .	C		h160z	Nbadi8A2
IPopmopdt oi	19	J	C10	0T96	g38S .	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T	J z	C7	CT9	g38S .	C		h160z	Nbadi8A2
S ,p-Xyint n	9T4	J	11	1T7	g38S .	C		h160z	Nbadi8A2
o-Xyint n	5T	J	11	0Th6	g38S .	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. Th	J	C5	CTC	g38S .	C		h160z	Nbadi8A2
Nbignt n	19		C9	0T50	g38S .	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C5	J	11	1T7	g38S .	C		h160z	Nbadi8A2

Client Sample ID: B18-5V — Lab Sample ID: 570-65245-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT5	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5TC	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
C,C-Defigomona Bdt n	CT0	J	C40	0T99	g38S.	C		h160z	Nbadi8A2
v aBdt oi	49	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T1	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. .	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T4	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. Th	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	hTC	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	19		C9	0T50	g38S.	C		h160z	Nbadi8A2
NmasBiomofigomoS naBdt n	CT4	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	5T	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B18-15V — Lab Sample ID: 570-65245-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	7T0	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T56	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT9	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T4	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
C,C-Defigomona Bdt n	CT4	J	C40	0T99	g38S.	C		h160z	Nbadi8A2
v aBdt oi	57	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	4T0	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. .	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4Th	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	7T6	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	4T4	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C7	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 1		C9	0T50	g38S.	C		h160z	Nbadi8A2
NmasBiomofigomoS naBdt n	CT6	J	1h	CT	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	1C	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B17-5V — Lab Sample ID: 570-65245-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T4	J	1C	0T66	g38S.	CT CC		h160z	Nbadi8A2
l BiomoS naBdt n	07TC	J	C4	0T44	g38S.	CT CC		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT5	J	. 1	CT	g38S.	CT CC		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	4T	J	. 0	0Th4	g38S.	CT CC		h160z	Nbadi8A2
v aBdt oi	66	J	C10	6T	g38S.	CT CC		h160z	Nbadi8A2
v aByibnt unt n	CT7	J	1h	CT4	g38S.	CT CC		h160z	Nbadi8A2
IPopmopdt oi	. 4	J	C60	CT	g38S.	CT CC		h160z	Nbadi8A2
MnaByint n l BiomaEn	5Th	J z	1.	1T4	g38S.	CT CC		h160z	Nbadi8A2
S ,p-Xyint n	5T9	J	1h	. T6	g38S.	CT CC		h160z	Nbadi8A2
o-Xyint n	5T1	J	1h	CTC	g38S.	CT CC		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T9	J	10	CT5	g38S.	CT CC		h160z	Nbadi8A2
NhandsBiomonaBnt n	hTh	J	44	CT5	g38S.	CT CC		h160z	Nbadi8A2
Nbignt n	11	J	15	0T66	g38S.	CT CC		h160z	Nbadi8A2
Xyint nP, Nbadi	CC	J	1h	. T6	g38S.	CT CC		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaet sigEn ndEeosBnS esdi anPamnPgiaPT

Client Sample ID: B17-15V — Lab Sample ID: 570-65245-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	1T7	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T41	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CT5	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T7	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
C,C-Defigomonabdt n	CTC	J	C40	0T99	g38S.	C		h160z	Nbadi8A2
v aBdt oi	47	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1TC	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	17	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4T5	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	7T4	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	. Th	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	. T6	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	hT7	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. .		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	CC	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B16-5V — Lab Sample ID: 570-65245-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. T	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoS naBdt n	0T50	J	C0	0T .	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	CTh	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	5T9	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	4h	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T7	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	17	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	5T0	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	7T	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	5T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	5TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. 1	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	4C		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NnaS naByibnt unt n	CTh	J	15	CT6	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B16-15V — Lab Sample ID: 570-65245-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	. Th	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
l BiomoforS	hT	J	14	0T7h	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	6Th	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	57	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	1T7	J	11	CTC	g38S.	C		h160z	Nbadi8A2
lPopmopdt oi	14	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	. T6	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	hTh	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	4T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	5T4	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C9	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	46		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NnaS naByibnt unt n	CTh	J	15	CT6	g38S.	C		h160z	Nbadi8A2

NBeP Dnansaxot cgS S dny EonP t oaxt sigEn ndEeosBnS esdi anPamnPgiaPT

Client Sample ID: B16-15V (Continued) — Lab Sample ID: 570-65245-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xyint nP, Nbadi	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B11-5V — Lab Sample ID: 570-65245-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	6T	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T5	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	7T4	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	59	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	4T6	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	. 4	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	. Th	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	6TC	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	. 9		. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	4h		C9	0T50	g38S.	C		h160z	Nbadi8A2
C,1,4-NmaS naByibnt unt n	. TC	J	15	CT6	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C.	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B11-15V — Lab Sample ID: 570-65245-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z nt unt n	5T1	J	C6	0T50	g38S.	C		h160z	Nbadi8A2
DesBiomoEefigomoS naBdt n	1T7	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	6T6	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	5.	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	. TD	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	1h	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	. T1	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	9Th	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	4T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	5TD	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	C4	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 6		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	C4	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Client Sample ID: B12-5V — Lab Sample ID: 570-65245-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DesBiomoEefigomoS naBdt n	1T6	J	15	0T9h	g38S.	C		h160z	Nbadi8A2
C,1-DesBiomopmopdt n	6T6	J	1.	0T64	g38S.	C		h160z	Nbadi8A2
v aBdt oi	44	J	94	4Th	g38S.	C		h160z	Nbadi8A2
v aByibnt unt n	CT5	J	11	CTC	g38S.	C		h160z	Nbadi8A2
IPopmopdt oi	1h	J	C10	0T96	g38S.	C		h160z	Nbadi8A2
MnaByint n l BiomaEn	4Th	J z	C7	CT9	g38S.	C		h160z	Nbadi8A2
S ,p-Xyint n	4T6	J	11	1T7	g38S.	C		h160z	Nbadi8A2
o-Xyint n	1T	J	11	0Th6	g38S.	C		h160z	Nbadi8A2
anmaz gayi disoBoi (Nz 2)	5T1	J	C5	CTC	g38S.	C		h160z	Nbadi8A2
NhandsBiomonaBnt n	1T9	J	. 4	CTC	g38S.	C		h160z	Nbadi8A2
Nbignt n	. 5		C9	0T50	g38S.	C		h160z	Nbadi8A2
Xyint nP, Nbadi	6T9	J	11	1T7	g38S.	C		h160z	Nbadi8A2

Detection Summary

Client Sample ID: B12-15V

Lab Sample ID: 570-65245-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
l BiomoS naBdt n	0T6.	J	C0	0T .	g38S .	C		h160z	Noadi8A2
DesBiomoEefigomoS naBdt n	1T6	J	15	0T9h	g38S .	C		h160z	Noadi8A2
C,1-DesBiomopmopdt n	7T6	J	1.	0T64	g38S .	C		h160z	Noadi8A2
v aBdt oi	69	J	94	4Th	g38S .	C		h160z	Noadi8A2
v aByibnt unt n	5T4	J	11	CTC	g38S .	C		h160z	Noadi8A2
IPopmopdt oi	. 1	J	C10	0T96	g38S .	C		h160z	Noadi8A2
MnaByint n l BiomeEn	5T4	J z	C7	CT9	g38S .	C		h160z	Noadi8A2
S ,p-Xyint n	C5	J	11	1T7	g38S .	C		h160z	Noadi8A2
o-Xyint n	9T9	J	11	0Th6	g38S .	C		h160z	Noadi8A2
anma-z gayi disoBoi (Nz 2)	5T6	J	C5	CTC	g38S .	C		h160z	Noadi8A2
NnandsBiomonaBnt n	1T1	J	. 4	CTC	g38S .	C		h160z	Noadi8A2
Noignt n	. h		C9	0T50	g38S .	C		h160z	Noadi8A2
NmesBiomofigomoS naBdt n	CT.	J	1h	CT.	g38S .	C		h160z	Noadi8A2
C,1,4-NmeS naByibnt unt n	CT9	J	15	CT6	g38S .	C		h160z	Noadi8A2
Xyint nP, Noadi	15		11	1T7	g38S .	C		h160z	Noadi8A2

NBeP Dnansaeot c gS S dny EonP t oaet sigEn ndEeosBnS esdi anPamnPgiaPT

v gmofet P l diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B45-5V
Date Collected: 07/22/24 45:5A
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4
Matri3: x ir

x nalFte	Result	f ualig er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**TJ6**	**y**	C6	0u50	g38S 2			078148lCC5:5h	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148lCC5:5h	C
BmoS oforS	ND		51	Quh	g38S 2			078148lCC5:5h	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148lCC5:5h	C
I drbot anands. ionsEn	ND		2C	QU2	g38S 2			078148lCC5:5h	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148lCC5:5h	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148lCC5:5h	C
Chloro9orm	**5JT**	**y**	14	0u7h	g38S 2			078148lCC5:5h	C
I . iomoS na dt n	ND		C0	0U22	g38S 2			078148lCC5:5h	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148lCC5:5h	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148lCC5:5h	C
DebmoS os. iomoS na dt n	ND		42	QU2	g38S 2			078148lCC5:5h	C
C,1-DebmoS ona dt n	ND		2h	QU2	g38S 2			078148lCC5:5h	C
C,1-Des. iomobnt znt n	ND		20	QU5	g38S 2			078148lCC5:5h	C
C,2-Des. iomobnt znt n	ND		20	QU5	g38S 2			078148lCC5:5h	C
C,4-Des. iomobnt znt n	ND		20	QU5	g38S 2			078148lCC5:5h	C
Dichlorodi9uoromethane	**2JT**	**y**	15	0u9h	g38S 2			078148lCC5:5h	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148lCC5:5h	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148lCC5:5h	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148lCC5:5h	C
4,2-Dichloropropane	**7J8**	**y**	12	0u64	g38S 2			078148lCC5:5h	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148lCC5:5h	C
DeePopropyi na nm(Dlj v)	ND		1C	QU5	g38S 2			078148lCC5:5h	C
Ethanol	**A4**	**y**	94	4uh	g38S 2			078148lCC5:5h	C
EthFlben. ene	**2J2**	**y**	11	QUC	g38S 2			078148lCC5:5h	C
v a yi-abgayi na nm(v TBv)	ND		1C	QU1	g38S 2			078148lCC5:5h	C
4-v a yiaoignt n	ND		15	QU1	g38S 2			078148lCC5:5h	C
Isopropanol	**40**	**y**	C10	0u96	g38S 2			078148lCC5:5h	C
MethFlene Chloride	**5JT**	**y B**	C7	QU9	g38S 2			078148lCC5:5h	C
Mna yi anraabgayi na nm	ND		Ch	QU1	g38S 2			078148lCC5:5h	C
m,p-XFlene	**7J2**	**y**	11	1u7	g38S 2			078148lCC5:5h	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCC5:5h	C
o-XFlene	**TJ1**	**y**	11	0uh6	g38S 2			078148lCC5:5h	C
c ayrnt n	ND		1C	1U2	g38S 2			078148lCC5:5h	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148lCC5:5h	C
tert-ButFl alcohol (z Bx)	**TJT**	**y**	C5	QUC	g38S 2			078148lCC5:5h	C
C,C,1,1-Tnands. iomona dt n	ND		24	QUC	g38S 2			078148lCC5:5h	C
zetrachloroethene	**7J5**	**y**	24	QUC	g38S 2			078148lCC5:5h	C
zoluene	**60**		C9	0u50	g38S 2			078148lCC5:5h	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCC5:5h	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCC5:5h	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078148lCC5:5h	C
C,C,C-Tnes. iomona dt n	ND		17	0U79	g38S 2			078148lCC5:5h	C
C,C,1-Tnes. iomona dt n	ND		17	0U76	g38S 2			078148lCC5:5h	C
Tnes. iomona nt n	ND		17	0u96	g38S 2			078148lCC5:5h	C
zrichloro9uoromethane	**4J1**	**y**	1h	QU2	g38S 2			078148lCC5:5h	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1U2	g38S 2			078148lCC5:5h	C
C,1,4-TnesS na yibnt znt n	ND		15	QU6	g38S 2			078148lCC5:5h	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B45-5V
Date Collected: 07/22/24 45:5A
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148lCC5:5h	C
Vet yi s. ionaEn	ND		C2	0.4C	g38S 2			078148lCC5:5h	C
XFlenes, zotal	**44**	**y**	11	1.7	g38S 2			078148lCC5:5h	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*07/24/21 15:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 15:58*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*07/24/21 15:58*	*1*

Client Sample ID: B45-45V
Date Collected: 07/22/24 46:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**5JT**	**y**	C6	0.50	g38S 2			078148lCC6:41	C
BroS oEes. ioroS na dt n	ND		24	0.74	g38S 2			078148lCC6:41	C
BroS oforS	ND		51	O.h	g38S 2			078148lCC6:41	C
BroS oS na dt n	ND		C9	0.54	g38S 2			078148lCC6:41	C
I drbot anards. ioraEn	ND		2C	O.2	g38S 2			078148lCC6:41	C
I . iorobnt znt n	ND		12	0.60	g38S 2			078148lCC6:41	C
I . iorona dt n	ND		C2	0.45	g38S 2			078148lCC6:41	C
I . ioroforS	ND		14	0.7h	g38S 2			078148lCC6:41	C
Chloromethane	**0J15**	**y**	C0	0.22	g38S 2			078148lCC6:41	C
seP-C,1-Des. iorona nt n	ND		10	0.54	g38S 2			078148lCC6:41	C
seP-C,2-Des. ioropropnt n	ND		12	0.9h	g38S 2			078148lCC6:41	C
DebroS os. ioroS na dt n	ND		42	O.2	g38S 2			078148lCC6:41	C
C,1-DebroS ona dt n	ND		2h	O.2	g38S 2			078148lCC6:41	C
C,1-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148lCC6:41	C
C,2-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148lCC6:41	C
C,4-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148lCC6:41	C
Dichlorodi9uoromethane	**2J2**	**y**	15	0.9h	g38S 2			078148lCC6:41	C
C,C-Des. iorona dt n	ND		10	0.41	g38S 2			078148lCC6:41	C
C,1-Des. iorona dt n	ND		10	0.59	g38S 2			078148lCC6:41	C
C,C-Des. iorona nt n	ND		10	0.69	g38S 2			078148lCC6:41	C
4,2-Dichloropropane	**7J5**	**y**	12	0.64	g38S 2			078148lCC6:41	C
C,C-DefigoroSna dt n	ND		C40	0.99	g38S 2			078148lCC6:41	C
DeeP-opropyi na nr(DIj v)	ND		1C	O.5	g38S 2			078148lCC6:41	C
Ethanol	**A8**		94	4.h	g38S 2			078148lCC6:41	C
EthFlben. ene	**2J5**	**y**	11	O.C	g38S 2			078148lCC6:41	C
v a yi-abgayi na nr(v TBv)	ND		1C	O.1	g38S 2			078148lCC6:41	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148lCC6:41	C
Isopropanol	**42**	**y**	C10	0.96	g38S 2			078148lCC6:41	C
MethFlene Chloride	**5J5**	**y B**	C7	O.9	g38S 2			078148lCC6:41	C
Mna yi anaabgayi na nm	ND		Ch	O.1	g38S 2			078148lCC6:41	C
m,p-XFlene	**8J5**	**y**	11	1.7	g38S 2			078148lCC6:41	C
Ndp. a dint n	ND		16	2.C	g38S 2			078148lCC6:41	C
o-XFlene	**TJ6**	**y**	11	0.h6	g38S 2			078148lCC6:41	C
c ayrnt n	ND		1C	1.2	g38S 2			078148lCC6:41	C
anaAS yi Mna yi v a nr(TAMv)	ND		1C	O.h	g38S 2			078148lCC6:41	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B45-45V
Date Collected: 07/22/24 46:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	2J5	y	C5	OuC	g38S 2			078148lCC6:41	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078148lCC6:41	C
zetrachloroethene	45	y	24	OuC	g38S 2			078148lCC6:41	C
zoluene	57		C9	0u50	g38S 2			078148lCC6:41	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCC6:41	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCC6:41	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148lCC6:41	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148lCC6:41	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148lCC6:41	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148lCC6:41	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078148lCC6:41	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148lCC6:41	C
C,1,4-TneS na yibnt znt n	ND		15	Ou6	g38S 2			078148lCC6:41	C
C,2,5-TneS na yibnt znt n	ND		15	Ou0	g38S 2			078148lCC6:41	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078148lCC6:41	C
XFlenes, zotal	42	y	11	1u7	g38S 2			078148lCC6:41	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*07/24/21 16:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 16:42*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*07/24/21 16:42*	*1*

Client Sample ID: B4A-5V
Date Collected: 07/22/24 46:22
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	TJ2	y	C6	0u50	g38S 2			078148lCC7:17	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148lCC7:17	C
BmoS oforS	ND		51	Ouh	g38S 2			078148lCC7:17	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148lCC7:17	C
I drbot anands. ionEn	ND		2C	Ou2	g38S 2			078148lCC7:17	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148lCC7:17	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148lCC7:17	C
I . iomoforS	ND		14	0u7h	g38S 2			078148lCC7:17	C
Chloromethane	0J16	y	C0	0u22	g38S 2			078148lCC7:17	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148lCC7:17	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148lCC7:17	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078148lCC7:17	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078148lCC7:17	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148lCC7:17	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148lCC7:17	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148lCC7:17	C
Dichlorodi9uoromethane	2J1	y	15	0u9h	g38S 2			078148lCC7:17	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148lCC7:17	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148lCC7:17	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148lCC7:17	C
4,2-Dichloropropane	8J6	y	12	0u64	g38S 2			078148lCC7:17	C
C,C-DefigomoS na dt n	ND		C40	0u99	g38S 2			078148lCC7:17	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4A-5V
Date Collected: 07/22/24 46:22
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078148lCC7:17	C
Ethanol	**440**		94	4uh	g38S 2			078148lCC7:17	C
EthFlben. ene	**2.J2**	**y**	11	O.C	g38S 2			078148lCC7:17	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078148lCC7:17	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148lCC7:17	C
Isopropanol	**4T**	**y**	C10	0u96	g38S 2			078148lCC7:17	C
MethFlene Chloride	**5.J6**	**y B**	C7	O.9	g38S 2			078148lCC7:17	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078148lCC7:17	C
m,p-XFlene	**A.J4**	**y**	11	1u7	g38S 2			078148lCC7:17	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCC7:17	C
o-XFlene	**TJ8**	**y**	11	0uh6	g38S 2			078148lCC7:17	C
c ayrnt n	ND		1C	1u2	g38S 2			078148lCC7:17	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078148lCC7:17	C
tert-ButFl alcohol (z Bx)	**5.J4**	**y**	C5	O.C	g38S 2			078148lCC7:17	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148lCC7:17	C
zetrachloroethene	**TJ6**	**y**	24	O.C	g38S 2			078148lCC7:17	C
zoluene	**61**		C9	0u50	g38S 2			078148lCC7:17	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCC7:17	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCC7:17	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078148lCC7:17	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078148lCC7:17	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078148lCC7:17	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078148lCC7:17	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148lCC7:17	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148lCC7:17	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078148lCC7:17	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148lCC7:17	C
Vet yi s. iomaEn	ND		C2	0u4C	g38S 2			078148lCC7:17	C
XFlenes, zotal	**4T**	**y**	11	1u7	g38S 2			078148lCC7:17	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*07/24/21 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 17:27*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*07/24/21 17:27*	*1*

Client Sample ID: B4A-45V
Date Collected: 07/22/24 46:T7
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-1
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**TJ0**	**y**	C6	0u50	g38S 2			078148lCCh:C1	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148lCCh:C1	C
BmoS oforS	ND		51	O.h	g38S 2			078148lCCh:C1	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148lCCh:C1	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078148lCCh:C1	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148lCCh:C1	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148lCCh:C1	C
I . iomoforS	ND		14	0u7h	g38S 2			078148lCCh:C1	C
Chloromethane	**0.J64**	**y**	C0	0u22	g38S 2			078148lCCh:C1	C

vgmofet PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4A-45V
Date Collected: 07/22/24 46:T7
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-1
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148lCCh:C1	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148lCCh:C1	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148lCCh:C1	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148lCCh:C1	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:C1	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:C1	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:C1	C
Dichlorodi9uoromethane	**2J2**	**y**	15	0u9h	g38S 2			078148lCCh:C1	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148lCCh:C1	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148lCCh:C1	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148lCCh:C1	C
4,2-Dichloropropane	**44**	**y**	12	0u64	g38S 2			078148lCCh:C1	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148lCCh:C1	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148lCCh:C1	C
Ethanol	**A1**		94	4uh	g38S 2			078148lCCh:C1	C
EthFlben. ene	**6J2**	**y**	11	QuC	g38S 2			078148lCCh:C1	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148lCCh:C1	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148lCCh:C1	C
Isopropanol	**40**	**y**	C10	0u96	g38S 2			078148lCCh:C1	C
MethFlene Chloride	**5J2**	**y B**	C7	Qu9	g38S 2			078148lCCh:C1	C
Mna yi anmabgayi na nm	ND		Ch	Qu1	g38S 2			078148lCCh:C1	C
m,p-XFlene	**T0**		11	1u7	g38S 2			078148lCCh:C1	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCCh:C1	C
o-XFlene	**44**	**y**	11	0uh6	g38S 2			078148lCCh:C1	C
c ayrnt n	ND		1C	1u2	g38S 2			078148lCCh:C1	C
anmaAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148lCCh:C1	C
tert-ButFl alcohol (zBx)	**TJ1**	**y**	C5	QuC	g38S 2			078148lCCh:C1	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148lCCh:C1	C
zetrachloroethene	**4JA**	**y**	24	QuC	g38S 2			078148lCCh:C1	C
zoluene	**7T**		C9	0u50	g38S 2			078148lCCh:C1	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCCh:C1	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCCh:C1	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148lCCh:C1	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148lCCh:C1	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148lCCh:C1	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148lCCh:C1	C
Tmes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148lCCh:C1	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148lCCh:C1	C
C,1,4-TmeS na yibnt znt n	ND		15	Qu6	g38S 2			078148lCCh:C1	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148lCCh:C1	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148lCCh:C1	C
XFlenes, zotal	**14**		11	1u7	g38S 2			078148lCCh:C1	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/24/21 18:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 18:12*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*07/24/21 18:12*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B4-5V
Date Collected: 07/2T/24 07:52
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-5
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**TJ0**	**y**	C6	0u50	g38S 2			078148lCCh:56	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148lCCh:56	C
BmoS oforS	ND		51	Quh	g38S 2			078148lCCh:56	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148lCCh:56	C
I dmbot anands. ionsEn	ND		2C	Qu2	g38S 2			078148lCCh:56	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148lCCh:56	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148lCCh:56	C
I . iomoforS	ND		14	0u7h	g38S 2			078148lCCh:56	C
Chloromethane	**0JI4**	**y**	C0	0u22	g38S 2			078148lCCh:56	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148lCCh:56	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148lCCh:56	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148lCCh:56	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148lCCh:56	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:56	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:56	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCCh:56	C
Dichlorodi9uoromethane	**2JT**	**y**	15	0u9h	g38S 2			078148lCCh:56	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148lCCh:56	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148lCCh:56	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148lCCh:56	C
4,2-Dichloropropane	**5JI**	**y**	12	0u64	g38S 2			078148lCCh:56	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148lCCh:56	C
DeePopmopyi na nm(DIj v)	ND		1C	Qu5	g38S 2			078148lCCh:56	C
Ethanol	**440**		94	4uh	g38S 2			078148lCCh:56	C
EthFlben. ene	**2J6**	**y**	11	QuC	g38S 2			078148lCCh:56	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148lCCh:56	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148lCCh:56	C
Isopropanol	**24**	**y**	C10	0u96	g38S 2			078148lCCh:56	C
MethFlene Chloride	**5JI**	**y B**	C7	Qu9	g38S 2			078148lCCh:56	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148lCCh:56	C
m,p-XFlene	**44**	**y**	11	1u7	g38S 2			078148lCCh:56	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCCh:56	C
o-XFlene	**5J4**	**y**	11	0uh6	g38S 2			078148lCCh:56	C
StFrene	**2JI**	**y**	1C	1u2	g38S 2			078148lCCh:56	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148lCCh:56	C
tert-ButFl alcohol (zBx)	**2J6**	**y**	C5	QuC	g38S 2			078148lCCh:56	C
C,C,1,1-Tnands. ionona dt n	ND		24	QuC	g38S 2			078148lCCh:56	C
zetrachloroethene	**TJ5**	**y**	24	QuC	g38S 2			078148lCCh:56	C
zoluene	**5T**		C9	0u50	g38S 2			078148lCCh:56	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCCh:56	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCCh:56	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078148lCCh:56	C
C,C,C-Tnes. ionona dt n	ND		17	0u79	g38S 2			078148lCCh:56	C
C,C,1-Tnes. ionona dt n	ND		17	0u76	g38S 2			078148lCCh:56	C
Tnes. ionona nt n	ND		17	0u96	g38S 2			078148lCCh:56	C
Tnes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148lCCh:56	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148lCCh:56	C
C,1,4-TnaS na yibnt znt n	ND		15	Qu6	g38S 2			078148lCCh:56	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-5V
Date Collected: 07/2T/24 07:52
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-5
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O0	g38S 2			078148lCCh:56	C
Vet yi s. ionaEn	ND		C2	0u4C	g38S 2			078148lCCh:56	C
XFlenes, zotal	**46**	**y**	11	1u7	g38S 2			078148lCCh:56	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*07/24/21 18:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/24/21 18:56*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*07/24/21 18:56*	*1*

Client Sample ID: B4-45V
Date Collected: 07/2T/24 08:02
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-6
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2JA**	**y**	C6	0u50	g38S 2			078148lCC9:40	C
BroS oEes. ioroS na dt n	ND		24	0u74	g38S 2			078148lCC9:40	C
BroS oforS	ND		51	Ouh	g38S 2			078148lCC9:40	C
BroS oS na dt n	ND		C9	0u54	g38S 2			078148lCC9:40	C
I drbot anards. ioraEn	ND		2C	Ou2	g38S 2			078148lCC9:40	C
I . iorobnt znt n	ND		12	0u60	g38S 2			078148lCC9:40	C
I . iorona dt n	ND		C2	0u45	g38S 2			078148lCC9:40	C
I . ioroforS	ND		14	0u7h	g38S 2			078148lCC9:40	C
Chloromethane	**0J54**	**y**	C0	0u22	g38S 2			078148lCC9:40	C
seP-C,1-Des. iorona nt n	ND		10	0u54	g38S 2			078148lCC9:40	C
seP-C,2-Des. ioropropnt n	ND		12	0u9h	g38S 2			078148lCC9:40	C
DebroS os. ioroS na dt n	ND		42	Ou2	g38S 2			078148lCC9:40	C
C,1-DebroS ona dt n	ND		2h	Ou2	g38S 2			078148lCC9:40	C
C,1-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148lCC9:40	C
C,2-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148lCC9:40	C
C,4-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148lCC9:40	C
Dichlorodi9uoromethane	**2J2**	**y**	15	0u9h	g38S 2			078148lCC9:40	C
C,C-Des. iorona dt n	ND		10	0u41	g38S 2			078148lCC9:40	C
C,1-Des. iorona dt n	ND		10	0u59	g38S 2			078148lCC9:40	C
C,C-Des. iorona nt n	ND		10	0u69	g38S 2			078148lCC9:40	C
4,2-Dichloropropane	**6J2**	**y**	12	0u64	g38S 2			078148lCC9:40	C
C,C-DefigoroS na dt n	ND		C40	0u99	g38S 2			078148lCC9:40	C
DeeP-opropopyi na nr(Dlj v)	ND		1C	Ou5	g38S 2			078148lCC9:40	C
Ethanol	**A6**		94	4uh	g38S 2			078148lCC9:40	C
EthFlben. ene	**6J0**	**y**	11	OuC	g38S 2			078148lCC9:40	C
v a yi-abgayi na nr(v TBv)	ND		1C	Ou1	g38S 2			078148lCC9:40	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078148lCC9:40	C
Isopropanol	**48**	**y**	C10	0u96	g38S 2			078148lCC9:40	C
MethFlene Chloride	**5J2**	**y B**	C7	Ou9	g38S 2			078148lCC9:40	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078148lCC9:40	C
m,p-XFlene	**28**		11	1u7	g38S 2			078148lCC9:40	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCC9:40	C
o-XFlene	**44**	**y**	11	0uh6	g38S 2			078148lCC9:40	C
c ayrnt n	ND		1C	1u2	g38S 2			078148lCC9:40	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	Ouh	g38S 2			078148lCC9:40	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-45V
Date Collected: 07/2T/24 08:02
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-6
Matri3: x ir

x nalFte	Result	f ualiSier	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	2JT	y	C5	OuC	g38S 2			078148IC C9:40	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078148IC C9:40	C
zetrachloroethene	2J2	y	24	OuC	g38S 2			078148IC C9:40	C
zoluene	57		C9	0u50	g38S 2			078148IC C9:40	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC C9:40	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC C9:40	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC C9:40	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC C9:40	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC C9:40	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC C9:40	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078148IC C9:40	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC C9:40	C
4,2,1-zrimethFlben. ene	4J7	y	15	Ou6	g38S 2			078148IC C9:40	C
C,2,5-TmeS na yibnt znt n	ND		15	Ou0	g38S 2			078148IC C9:40	C
Vet yi s. iomEn	ND		C2	0u4C	g38S 2			078148IC C9:40	C
XFlenes, zotal	TA		11	1u7	g38S 2			078148IC C9:40	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*07/24/21 19:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 131*		*07/24/21 19:40*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*07/24/21 19:40*	*1*

Client Sample ID: B2-5V
Date Collected: 07/2T/24 08:45
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-7
Matri3: x ir

x nalFte	Result	f ualiSier	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	AJ0	y	C6	0u50	g38S 2			078148IC 10:14	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 10:14	C
BmoS oforS	ND		51	Ouh	g38S 2			078148IC 10:14	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 10:14	C
I drbot anands. iomEn	ND		2C	Ou2	g38S 2			078148IC 10:14	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 10:14	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 10:14	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 10:14	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 10:14	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 10:14	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 10:14	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078148IC 10:14	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078148IC 10:14	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 10:14	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 10:14	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 10:14	C
Dichlorodi9uoromethane	4J7	y	15	0u9h	g38S 2			078148IC 10:14	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 10:14	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 10:14	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 10:14	C
C,1-Des. iompropdt n	ND		12	0u64	g38S 2			078148IC 10:14	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 10:14	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2-5V
Date Collected: 07/2T/24 08:45
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-7
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078148IC 10:14	C
Ethanol	**11**	**y**	94	4uh	g38S 2			078148IC 10:14	C
EthFlben. ene	**8.J2**	**y**	11	O.C	g38S 2			078148IC 10:14	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078148IC 10:14	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC 10:14	C
Isopropanol	**T4**	**y**	C10	0u96	g38S 2			078148IC 10:14	C
MethFlene Chloride	**6J4**	**y B**	C7	O.9	g38S 2			078148IC 10:14	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078148IC 10:14	C
m,p-XFlene	**25**		11	1u7	g38S 2			078148IC 10:14	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 10:14	C
o-Xyint n	ND		11	0uh6	g38S 2			078148IC 10:14	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 10:14	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078148IC 10:14	C
tert-ButFl alcohol (z Bx)	**TJ7**	**y**	C5	O.C	g38S 2			078148IC 10:14	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148IC 10:14	C
zetrachloroethene	**18**		24	O.C	g38S 2			078148IC 10:14	C
zoluene	**60**		C9	0u50	g38S 2			078148IC 10:14	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 10:14	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 10:14	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 10:14	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078148IC 10:14	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078148IC 10:14	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078148IC 10:14	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148IC 10:14	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 10:14	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078148IC 10:14	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 10:14	C
Vet yi s. iomEn	ND		C2	0u4C	g38S 2			078148IC 10:14	C
XFlenes, zotal	**25**		11	1u7	g38S 2			078148IC 10:14	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*229*	*S1+*	*70 - 130*		*07/24/21 20:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 20:24*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*07/24/21 20:24*	*1*

Client Sample ID: B2-45V
Date Collected: 07/2T/24 08:2T
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-8
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4.J8**	**y**	C6	0u50	g38S 2			078148IC 1C:0h	C
BromoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 1C:0h	C
BromoS oforS	ND		51	O.h	g38S 2			078148IC 1C:0h	C
BromoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 1C:0h	C
I drbot anands. iomEn	ND		2C	O.2	g38S 2			078148IC 1C:0h	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 1C:0h	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 1C:0h	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 1C:0h	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 1C:0h	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2-45V
Date Collected: 07/2T/24 08:2T
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-8
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 1C:0h	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 1C:0h	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078148IC 1C:0h	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078148IC 1C:0h	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:0h	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:0h	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:0h	C
Dichlorodi9uoromethane	**4J7**	**y**	15	0u9h	g38S 2			078148IC 1C:0h	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 1C:0h	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 1C:0h	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 1C:0h	C
4,2-Dichloropropane	**5J7**	**y**	12	0u64	g38S 2			078148IC 1C:0h	C
C,C-DefigomoS na dt n	ND		C40	0u99	g38S 2			078148IC 1C:0h	C
DeePopmopyi na nm(DIj v)	ND		1C	Ou5	g38S 2			078148IC 1C:0h	C
Ethanol	**T5**	**y**	94	4uh	g38S 2			078148IC 1C:0h	C
EthFlben. ene	**TJ2**	**y**	11	OuC	g38S 2			078148IC 1C:0h	C
v a yi-abgayi na nm(v TBv)	ND		1C	Ou1	g38S 2			078148IC 1C:0h	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078148IC 1C:0h	C
Isopropanol	**26**	**y**	C10	0u96	g38S 2			078148IC 1C:0h	C
MethFlene Chloride	**5J2**	**y B**	C7	Ou9	g38S 2			078148IC 1C:0h	C
Mna yi anmabgayi na nm	ND		Ch	Ou1	g38S 2			078148IC 1C:0h	C
m,p-XFlene	**44**	**y**	11	1u7	g38S 2			078148IC 1C:0h	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 1C:0h	C
o-XFlene	**5JT**	**y**	11	0uh6	g38S 2			078148IC 1C:0h	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 1C:0h	C
anmaAS yi Mna yi v a nm(TAMv)	ND		1C	Ouh	g38S 2			078148IC 1C:0h	C
tert-ButFl alcohol (zBx)	**2J1**	**y**	C5	OuC	g38S 2			078148IC 1C:0h	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078148IC 1C:0h	C
zetrachloroethene	**6JT**	**y**	24	OuC	g38S 2			078148IC 1C:0h	C
zoluene	**15**		C9	0u50	g38S 2			078148IC 1C:0h	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 1C:0h	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 1C:0h	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 1C:0h	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 1C:0h	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 1C:0h	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 1C:0h	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078148IC 1C:0h	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 1C:0h	C
C,1,4-TmeS na yibnt znt n	ND		15	Ou6	g38S 2			078148IC 1C:0h	C
C,2,5-TmeS na yibnt znt n	ND		15	Ou0	g38S 2			078148IC 1C:0h	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148IC 1C:0h	C
XFlenes, zotal	**46**	**y**	11	1u7	g38S 2			078148IC 1C:0h	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*07/24/21 21:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/24/21 21:08*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/24/21 21:08*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B1-5V
Date Collected: 07/2T/24 08:T4
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-A
Matri3: x ir

x nalFte	Result	f ualig er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2JT**	**y**	C6	0u50	g38S 2			078148IC 1C:12	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 1C:12	C
BmoS oforS	ND		51	Quh	g38S 2			078148IC 1C:12	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 1C:12	C
I drbot anands. ionsEn	ND		2C	Qu2	g38S 2			078148IC 1C:12	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 1C:12	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 1C:12	C
Chloro9orm	**7J6**	**y**	14	0u7h	g38S 2			078148IC 1C:12	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 1C:12	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 1C:12	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 1C:12	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 1C:12	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 1C:12	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:12	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:12	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:12	C
Dichlorodi9uoromethane	**2JI**	**y**	15	0u9h	g38S 2			078148IC 1C:12	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 1C:12	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 1C:12	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 1C:12	C
4,2-Dichloropropane	**5JT**	**y**	12	0u64	g38S 2			078148IC 1C:12	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 1C:12	C
DeePopropyi na nm(DIj v)	ND		1C	Qu5	g38S 2			078148IC 1C:12	C
Ethanol	**1T**	**y**	94	4uh	g38S 2			078148IC 1C:12	C
EthFlben. ene	**6J5**	**y**	11	QuC	g38S 2			078148IC 1C:12	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 1C:12	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 1C:12	C
Isopropanol	**T2**	**y**	C10	0u96	g38S 2			078148IC 1C:12	C
MethFlene Chloride	**5JI**	**y B**	C7	Qu9	g38S 2			078148IC 1C:12	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 1C:12	C
m,p-XFlene	**28**		11	1u7	g38S 2			078148IC 1C:12	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 1C:12	C
o-XFlene	**42**	**y**	11	0uh6	g38S 2			078148IC 1C:12	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 1C:12	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 1C:12	C
tert-ButFl alcohol (z Bx)	**TJ6**	**y**	C5	QuC	g38S 2			078148IC 1C:12	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148IC 1C:12	C
zetrachloroethene	**AJI**	**y**	24	QuC	g38S 2			078148IC 1C:12	C
zoluene	**14**		C9	0u50	g38S 2			078148IC 1C:12	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 1C:12	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 1C:12	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 1C:12	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 1C:12	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 1C:12	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 1C:12	C
Tmes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 1C:12	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 1C:12	C
4,2,1-zrimethFlben. ene	**4JA**	**y**	15	Qu6	g38S 2			078148IC 1C:12	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-5V
Date Collected: 07/2T/24 08:T4
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-A
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 1C:12	C
Ve yi s. ionaEn	ND		C2	0.4C	g38S 2			078148IC 1C:12	C
XFlenes, zotal	**10**		11	1.7	g38S 2			078148IC 1C:12	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/24/21 21:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 21:23*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 21:23*	*1*

Client Sample ID: B1-45V
Date Collected: 07/2T/24 08:10
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-40
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4.5**	**y**	C6	0.50	g38S 2			078148IC 11:C1	C
BroS oEes. ioroS na dt n	ND		24	0.74	g38S 2			078148IC 11:C1	C
BroS oforS	ND		51	O.h	g38S 2			078148IC 11:C1	C
BroS oS na dt n	ND		C9	0.54	g38S 2			078148IC 11:C1	C
I drbot anards. ioraEn	ND		2C	O.2	g38S 2			078148IC 11:C1	C
I . iorobnt znt n	ND		12	0.60	g38S 2			078148IC 11:C1	C
I . iorona dt n	ND		C2	0.45	g38S 2			078148IC 11:C1	C
I . ioroforS	ND		14	0.7h	g38S 2			078148IC 11:C1	C
I . ioroS na dt n	ND		C0	0.22	g38S 2			078148IC 11:C1	C
seP-C,1-Des. iorona nt n	ND		10	0.54	g38S 2			078148IC 11:C1	C
seP-C,2-Des. ioropropnt n	ND		12	0.9h	g38S 2			078148IC 11:C1	C
DebroS os. ioroS na dt n	ND		42	O.2	g38S 2			078148IC 11:C1	C
C,1-DebroS ona dt n	ND		2h	O.2	g38S 2			078148IC 11:C1	C
C,1-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148IC 11:C1	C
C,2-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148IC 11:C1	C
C,4-Des. iorobnt znt n	ND		20	O.5	g38S 2			078148IC 11:C1	C
Dichlorodi9uoromethane	**2.T**	**y**	15	0.9h	g38S 2			078148IC 11:C1	C
C,C-Des. iorona dt n	ND		10	0.41	g38S 2			078148IC 11:C1	C
C,1-Des. iorona dt n	ND		10	0.59	g38S 2			078148IC 11:C1	C
C,C-Des. iorona nt n	ND		10	0.69	g38S 2			078148IC 11:C1	C
4,2-Dichloropropane	**6.0**	**y**	12	0.64	g38S 2			078148IC 11:C1	C
C,C-DeSigorona dt n	ND		C40	0.99	g38S 2			078148IC 11:C1	C
DeePopropyi na nr(Dlj v)	ND		1C	O.5	g38S 2			078148IC 11:C1	C
Ethanol	**12**	**y**	94	4.h	g38S 2			078148IC 11:C1	C
EthFlben. ene	**24**	**y**	11	O.C	g38S 2			078148IC 11:C1	C
v a yi-abgayi na nr(v TBv)	ND		1C	O.1	g38S 2			078148IC 11:C1	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC 11:C1	C
Isopropanol	**TT**	**y**	C10	0.96	g38S 2			078148IC 11:C1	C
MethFlene Chloride	**5.0**	**y B**	C7	O.9	g38S 2			078148IC 11:C1	C
Mna yi anraabgayi na nm	ND		Ch	O.1	g38S 2			078148IC 11:C1	C
m,p-XFlene	**A4**		11	1.7	g38S 2			078148IC 11:C1	C
Ndp. a dint n	ND		16	2.C	g38S 2			078148IC 11:C1	C
o-XFlene	**TT**		11	0.h6	g38S 2			078148IC 11:C1	C
StFrene	**2.A**	**y**	1C	1.2	g38S 2			078148IC 11:C1	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	O.h	g38S 2			078148IC 11:C1	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-45V
Date Collected: 07/2T/24 08:10
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-40
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	TJ5	y	C5	OuC	g38S 2			078148IC 11:C1	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078148IC 11:C1	C
zetrachloroethene	TJ2	y	24	OuC	g38S 2			078148IC 11:C1	C
zoluene	11		C9	0u50	g38S 2			078148IC 11:C1	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 11:C1	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 11:C1	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 11:C1	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 11:C1	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 11:C1	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 11:C1	C
Tmes. iomofigomoS na dt n	ND		1h	OuZ	g38S 2			078148IC 11:C1	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1uZ	g38S 2			078148IC 11:C1	C
4,2,1-zrimethFlben. ene	2J1	y	15	OuG	g38S 2			078148IC 11:C1	C
C,2,5-TmeS na yibnt znt n	ND		15	OuO	g38S 2			078148IC 11:C1	C
Vet yi s. iomEn	ND		C2	0u4C	g38S 2			078148IC 11:C1	C
XFlenes, zotal	420		11	1u7	g38S 2			078148IC 11:C1	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*07/24/21 22:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*		*07/24/21 22:12*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 22:12*	*1*

Client Sample ID: B7-5V
Date Collected: 07/2T/24 08:50
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-44
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	4JT	y	C6	0u50	g38S 2			078148IC 12:0C	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 12:0C	C
BmoS oforS	ND		51	Ouh	g38S 2			078148IC 12:0C	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 12:0C	C
I drbot anands. iomEn	ND		2C	OuZ	g38S 2			078148IC 12:0C	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 12:0C	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 12:0C	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 12:0C	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 12:0C	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 12:0C	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 12:0C	C
DebmoS os. iomoS na dt n	ND		42	OuZ	g38S 2			078148IC 12:0C	C
C,1-DebmoS ona dt n	ND		2h	OuZ	g38S 2			078148IC 12:0C	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 12:0C	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 12:0C	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC 12:0C	C
Dichlorodi9uoromethane	4JB	y	15	0u9h	g38S 2			078148IC 12:0C	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 12:0C	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 12:0C	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 12:0C	C
4,2-Dichloropropane	1J7	y	12	0u64	g38S 2			078148IC 12:0C	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 12:0C	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-5V
Date Collected: 07/2T/24 08:50
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-44
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078148IC 12:0C	C
Ethanol	**50**	**y**	94	4uh	g38S 2			078148IC 12:0C	C
EthFlben. ene	**1JD**	**y**	11	O.C	g38S 2			078148IC 12:0C	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078148IC 12:0C	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC 12:0C	C
Isopropanol	**T0**	**y**	C10	0u96	g38S 2			078148IC 12:0C	C
MethFlene Chloride	**5J7**	**y B**	C7	O.9	g38S 2			078148IC 12:0C	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078148IC 12:0C	C
m,p-XFlene	**47**	**y**	11	1u7	g38S 2			078148IC 12:0C	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 12:0C	C
o-XFlene	**7JD**	**y**	11	0uh6	g38S 2			078148IC 12:0C	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 12:0C	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078148IC 12:0C	C
tert-ButFl alcohol (z Bx)	**1JD**	**y**	C5	O.C	g38S 2			078148IC 12:0C	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148IC 12:0C	C
zetrachloroethene	**2J4**	**y**	24	O.C	g38S 2			078148IC 12:0C	C
zoluene	**T1**		C9	0u50	g38S 2			078148IC 12:0C	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 12:0C	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 12:0C	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 12:0C	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078148IC 12:0C	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078148IC 12:0C	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078148IC 12:0C	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148IC 12:0C	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 12:0C	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078148IC 12:0C	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 12:0C	C
Vet yi s. iomaEn	ND		C2	0u4C	g38S 2			078148IC 12:0C	C
XFlenes, zotal	**21**		11	1u7	g38S 2			078148IC 12:0C	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*07/24/21 23:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*117*		*70 - 131*		*07/24/21 23:01*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 23:01*	*1*

Client Sample ID: B7-45V
Date Collected: 07/2T/24 08:57
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-42
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4JI**	**y**	C6	0u50	g38S 2			078148IC 12:49	C
BnoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 12:49	C
BnoS ofonS	ND		51	O.h	g38S 2			078148IC 12:49	C
BnoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 12:49	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078148IC 12:49	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 12:49	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 12:49	C
I . iomofonS	ND		14	0u7h	g38S 2			078148IC 12:49	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 12:49	C

vgmofet PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-45V
Date Collected: 07/2T/24 08:57
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-42
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 12:49	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 12:49	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 12:49	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 12:49	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:49	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:49	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:49	C
Dichlorodi9uoromethane	**4J7**	**y**	15	0u9h	g38S 2			078148IC 12:49	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 12:49	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 12:49	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 12:49	C
4,2-Dichloropropane	**1J6**	**y**	12	0u64	g38S 2			078148IC 12:49	C
C,C-DefigomoS na dt n	ND		C40	0u99	g38S 2			078148IC 12:49	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148IC 12:49	C
Ethanol	**T2**	**y**	94	4uh	g38S 2			078148IC 12:49	C
EthFlben. ene	**5J2**	**y**	11	QuC	g38S 2			078148IC 12:49	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 12:49	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 12:49	C
Isopropanol	**28**	**y**	C10	0u96	g38S 2			078148IC 12:49	C
MethFlene Chloride	**5J0**	**y B**	C7	Qu9	g38S 2			078148IC 12:49	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 12:49	C
m,p-XFlene	**22**		11	1u7	g38S 2			078148IC 12:49	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 12:49	C
o-XFlene	**8J6**	**y**	11	0uh6	g38S 2			078148IC 12:49	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 12:49	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 12:49	C
anraBgayi diso. oi (TBA)	ND		C5	QuC	g38S 2			078148IC 12:49	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148IC 12:49	C
zetrachloroethene	**4J5**	**y**	24	QuC	g38S 2			078148IC 12:49	C
zoluene	**T5**		C9	0u50	g38S 2			078148IC 12:49	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 12:49	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 12:49	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 12:49	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 12:49	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 12:49	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 12:49	C
Tmes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 12:49	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 12:49	C
C,1,4-TmeS na yibnt znt n	ND		15	Qu6	g38S 2			078148IC 12:49	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148IC 12:49	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148IC 12:49	C
XFlenes, zotal	**T4**		11	1u7	g38S 2			078148IC 12:49	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*07/24/21 23:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*		*07/24/21 23:49*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/24/21 23:49*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B8-5V
Date Collected: 07/2T/24 0A:08
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4T
Matri3: x ir

x nalFte	Result	f ualig er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J4**	**y**	C6	0u50	g38S 2			078158IC00:2h	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC00:2h	C
BmoS oforS	ND		51	Quh	g38S 2			078158IC00:2h	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC00:2h	C
I drbot anands. ionsEn	ND		2C	Qu2	g38S 2			078158IC00:2h	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC00:2h	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC00:2h	C
I . iomoforS	ND		14	0u7h	g38S 2			078158IC00:2h	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078158IC00:2h	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC00:2h	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC00:2h	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078158IC00:2h	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078158IC00:2h	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:2h	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:2h	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:2h	C
Des. iomoEefigomoS na dt n	ND		15	0u9h	g38S 2			078158IC00:2h	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC00:2h	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC00:2h	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC00:2h	C
4,2-Dichloropropane	**6JB**	**y**	12	0u64	g38S 2			078158IC00:2h	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078158IC00:2h	C
DeePopropyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078158IC00:2h	C
Ethanol	**T8**	**y**	94	4uh	g38S 2			078158IC00:2h	C
EthFlben. ene	**TJ6**	**y**	11	QuC	g38S 2			078158IC00:2h	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078158IC00:2h	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078158IC00:2h	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078158IC00:2h	C
MethFlene Chloride	**1J5**	**y B**	C7	Qu9	g38S 2			078158IC00:2h	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078158IC00:2h	C
m,p-XFlene	**4T**	**y**	11	1u7	g38S 2			078158IC00:2h	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC00:2h	C
o-XFlene	**5JB**	**y**	11	0uh6	g38S 2			078158IC00:2h	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC00:2h	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078158IC00:2h	C
anraBgayi diso. oi (TBA)	ND		C5	QuC	g38S 2			078158IC00:2h	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078158IC00:2h	C
zetrachloroethene	**4JA**	**y**	24	QuC	g38S 2			078158IC00:2h	C
zoluene	**16**		C9	0u50	g38S 2			078158IC00:2h	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC00:2h	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC00:2h	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC00:2h	C
C,C,C-Tnes. iomona dt n	ND		17	0u79	g38S 2			078158IC00:2h	C
C,C,1-Tnes. iomona dt n	ND		17	0u76	g38S 2			078158IC00:2h	C
Tnes. iomona nt n	ND		17	0u96	g38S 2			078158IC00:2h	C
zrichloroSluoromethane	**4J1**	**y**	1h	Qu2	g38S 2			078158IC00:2h	C
C,C,1-Tnes. iomo-C,1,1-aefigomona dt n	ND		2h	1u2	g38S 2			078158IC00:2h	C
C,1,4-TneS na yibnt znt n	ND		15	Qu6	g38S 2			078158IC00:2h	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-5V
Date Collected: 07/2T/24 0A:08
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4T
Matri3: x ir

x nalFte	Result	f ualiger	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC00:2h	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078158IC00:2h	C
XFlenes, zotal	**4A**	**y**	11	1u7	g38S 2			078158IC00:2h	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*07/25/21 00:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 131*		*07/25/21 00:38*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/25/21 00:38*	*1*

Client Sample ID: B8-45V
Date Collected: 07/2T/24 0A:46
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-41
Matri3: x ir

x nalFte	Result	f ualiger	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J1**	**y**	C6	0u50	g38S 2			078158IC0C:16	C
BnoS oEes. ionoS na dt n	ND		24	0u74	g38S 2			078158IC0C:16	C
BnoS ofonS	ND		51	O.h	g38S 2			078158IC0C:16	C
BnoS oS na dt n	ND		C9	0u54	g38S 2			078158IC0C:16	C
I dnbot anands. ionEn	ND		2C	O.2	g38S 2			078158IC0C:16	C
I . ionobnt znt n	ND		12	0u60	g38S 2			078158IC0C:16	C
I . ionona dt n	ND		C2	0u45	g38S 2			078158IC0C:16	C
I . ionofonS	ND		14	0u7h	g38S 2			078158IC0C:16	C
I . ionoS na dt n	ND		C0	0u22	g38S 2			078158IC0C:16	C
seP-C,1-Des. ionona nt n	ND		10	0u54	g38S 2			078158IC0C:16	C
seP-C,2-Des. ionopropnt n	ND		12	0u9h	g38S 2			078158IC0C:16	C
DebnoS os. ionoS na dt n	ND		42	O.2	g38S 2			078158IC0C:16	C
C,1-DebnoS ona dt n	ND		2h	O.2	g38S 2			078158IC0C:16	C
C,1-Des. ionobnt znt n	ND		20	O.5	g38S 2			078158IC0C:16	C
C,2-Des. ionobnt znt n	ND		20	O.5	g38S 2			078158IC0C:16	C
C,4-Des. ionobnt znt n	ND		20	O.5	g38S 2			078158IC0C:16	C
Dichlorodi9uoromethane	**2J6**	**y**	15	0u9h	g38S 2			078158IC0C:16	C
C,C-Des. ionona dt n	ND		10	0u41	g38S 2			078158IC0C:16	C
C,1-Des. ionona dt n	ND		10	0u59	g38S 2			078158IC0C:16	C
C,C-Des. ionona nt n	ND		10	0u69	g38S 2			078158IC0C:16	C
4,2-Dichloropropane	**5JA**	**y**	12	0u64	g38S 2			078158IC0C:16	C
C,C-Defigonona dt n	ND		C40	0u99	g38S 2			078158IC0C:16	C
DeeP-opnopyi na nn(Dlj v)	ND		1C	O.5	g38S 2			078158IC0C:16	C
Ethanol	**TA**	**y**	94	4uh	g38S 2			078158IC0C:16	C
EthFlben. ene	**5J4**	**y**	11	O.C	g38S 2			078158IC0C:16	C
v a yi-abgayi na nn(v TBv)	ND		1C	O.1	g38S 2			078158IC0C:16	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC0C:16	C
Isopropanol	**27**	**y**	C10	0u96	g38S 2			078158IC0C:16	C
MethFlene Chloride	**TJA**	**y B**	C7	O.9	g38S 2			078158IC0C:16	C
Mna yi anna-abgayi na nn	ND		Ch	O.1	g38S 2			078158IC0C:16	C
m,p-XFlene	**20**	**y**	11	1u7	g38S 2			078158IC0C:16	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC0C:16	C
o-XFlene	**7JT**	**y**	11	0uh6	g38S 2			078158IC0C:16	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC0C:16	C
anna-AS yi Mna yi v a nn(TAMv)	ND		1C	O.h	g38S 2			078158IC0C:16	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-45V
Date Collected: 07/2T/24 0A:46
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-41
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	2J5	y	C5	OuC	g38S 2			078158IC0C:16	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC0C:16	C
zetrachloroethene	4J6	y	24	OuC	g38S 2			078158IC0C:16	C
zoluene	14		C9	0u50	g38S 2			078158IC0C:16	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC0C:16	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC0C:16	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC0C:16	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078158IC0C:16	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078158IC0C:16	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078158IC0C:16	C
Tmes. iomofigomoS na dt n	ND		1h	OU2	g38S 2			078158IC0C:16	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC0C:16	C
C,1,4-TmeS na yibnt znt n	ND		15	OU6	g38S 2			078158IC0C:16	C
C,2,5-TmeS na yibnt znt n	ND		15	OU0	g38S 2			078158IC0C:16	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078158IC0C:16	C
XFlenes, zotal	27		11	1u7	g38S 2			078158IC0C:16	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/25/21 01:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*		*07/25/21 01:26*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/25/21 01:26*	*1*

Client Sample ID: B40-5V
Date Collected: 07/2T/24 0A:26
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-45
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	TJ0	y	C6	0u50	g38S 2			078158IC01:C5	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC01:C5	C
BmoS oforS	ND		51	OUh	g38S 2			078158IC01:C5	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC01:C5	C
I drbot anands. ionEn	ND		2C	OU2	g38S 2			078158IC01:C5	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC01:C5	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC01:C5	C
I . iomoforS	ND		14	0u7h	g38S 2			078158IC01:C5	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078158IC01:C5	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC01:C5	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC01:C5	C
DebmoS os. iomoS na dt n	ND		42	OU2	g38S 2			078158IC01:C5	C
C,1-DebmoS ona dt n	ND		2h	OU2	g38S 2			078158IC01:C5	C
C,1-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158IC01:C5	C
C,2-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158IC01:C5	C
C,4-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158IC01:C5	C
Dichlorodi9uoromethane	4J5	y	15	0u9h	g38S 2			078158IC01:C5	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC01:C5	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC01:C5	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC01:C5	C
4,2-Dichloropropane	5J8	y	12	0u64	g38S 2			078158IC01:C5	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078158IC01:C5	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B40-5V
Date Collected: 07/2T/24 0A:26
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-45
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078158IC01:C5	C
Ethanol	**14**	**y**	94	4uh	g38S 2			078158IC01:C5	C
EthFlben. ene	**TJ8**	**y**	11	O.C	g38S 2			078158IC01:C5	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078158IC01:C5	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC01:C5	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078158IC01:C5	C
MethFlene Chloride	**5J4**	**y B**	C7	O.9	g38S 2			078158IC01:C5	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078158IC01:C5	C
m,p-XFlene	**41**	**y**	11	1u7	g38S 2			078158IC01:C5	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC01:C5	C
o-XFlene	**6J7**	**y**	11	0uh6	g38S 2			078158IC01:C5	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC01:C5	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078158IC01:C5	C
tert-ButFl alcohol (z Bx)	**TJ0**	**y**	C5	O.C	g38S 2			078158IC01:C5	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078158IC01:C5	C
zetrachloroethene	**40**	**y**	24	O.C	g38S 2			078158IC01:C5	C
zoluene	**1T**		C9	0u50	g38S 2			078158IC01:C5	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC01:C5	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC01:C5	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC01:C5	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158IC01:C5	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158IC01:C5	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158IC01:C5	C
zrichloroSluoromethane	**6J7**	**y**	1h	O.2	g38S 2			078158IC01:C5	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC01:C5	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078158IC01:C5	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC01:C5	C
Vet yi s. iomaEn	ND		C2	0u4C	g38S 2			078158IC01:C5	C
XFlenes, zotal	**24**	**y**	11	1u7	g38S 2			078158IC01:C5	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*07/25/21 02:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 131*		*07/25/21 02:15*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/25/21 02:15*	*1*

Client Sample ID: B40-45V
Date Collected: 07/2T/24 0A:T5
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-46
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2JT**	**y**	C6	0u50	g38S 2			078158IC02:11	C
BnoSoEes. iomoSna dt n	ND		24	0u74	g38S 2			078158IC02:11	C
BnoSoforS	ND		51	O.h	g38S 2			078158IC02:11	C
BnoSoSna dt n	ND		C9	0u54	g38S 2			078158IC02:11	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078158IC02:11	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC02:11	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC02:11	C
I . iomofor S	ND		14	0u7h	g38S 2			078158IC02:11	C
I . iomoSna dt n	ND		C0	0u22	g38S 2			078158IC02:11	C

vgmofet PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B40-45V
Date Collected: 07/2T/24 0A:T5
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-46
Matri3: x ir

x nalFte	Result	f ualig3er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC02:11	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC02:11	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078158IC02:11	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078158IC02:11	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:11	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:11	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:11	C
Dichlorodig luoromethane	**1J2**	**y**	15	0u9h	g38S 2			078158IC02:11	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC02:11	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC02:11	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC02:11	C
4,2-Dichloropropane	**6J4**	**y**	12	0u64	g38S 2			078158IC02:11	C
4,4-Dig luoroethane	**4J4**	**y**	C40	0u99	g38S 2			078158IC02:11	C
DeePopmopyi na nm(Dlj v)	ND		1C	Ou5	g38S 2			078158IC02:11	C
Ethanol	**14**	**y**	94	4uh	g38S 2			078158IC02:11	C
EthFlben. ene	**2JA**	**y**	11	OuC	g38S 2			078158IC02:11	C
v a yi-abgayi na nm(v TBv)	ND		1C	Ou1	g38S 2			078158IC02:11	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078158IC02:11	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078158IC02:11	C
MethFlene Chloride	**1JA**	**y B**	C7	Ou9	g38S 2			078158IC02:11	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078158IC02:11	C
m,p-XFlene	**42**	**y**	11	1u7	g38S 2			078158IC02:11	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC02:11	C
o-XFlene	**5JD**	**y**	11	0uh6	g38S 2			078158IC02:11	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC02:11	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Ouh	g38S 2			078158IC02:11	C
tert-ButFl alcohol (z Bx)	**2JB**	**y**	C5	OuC	g38S 2			078158IC02:11	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC02:11	C
zetrachloroethene	**6JI**	**y**	24	OuC	g38S 2			078158IC02:11	C
zoluene	**12**		C9	0u50	g38S 2			078158IC02:11	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC02:11	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC02:11	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC02:11	C
C,C,C-Tnes. iomona dt n	ND		17	0u79	g38S 2			078158IC02:11	C
C,C,1-Tnes. iomona dt n	ND		17	0u76	g38S 2			078158IC02:11	C
Tnes. iomona nt n	ND		17	0u96	g38S 2			078158IC02:11	C
zrichloroG luoromethane	**4J7**	**y**	1h	Ou2	g38S 2			078158IC02:11	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC02:11	C
C,1,4-TnesS na yibnt znt n	ND		15	Ou6	g38S 2			078158IC02:11	C
C,2,5-TnesS na yibnt znt n	ND		15	Ou0	g38S 2			078158IC02:11	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078158IC02:11	C
XFlenes, zotal	**47**	**y**	11	1u7	g38S 2			078158IC02:11	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*07/25/21 03:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 131*		*07/25/21 03:22*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/25/21 03:22*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: BA-5V
Date Collected: 07/2T/24 0A:15
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-47
Matri3: x ir

x nalFte	Result	f ualig er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4JA**	**y**	C6	0u50	g38S 2			078l58lC04:CC	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078l58lC04:CC	C
BmoS oforS	ND		51	Quh	g38S 2			078l58lC04:CC	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078l58lC04:CC	C
I dmbot anands. ionsEn	ND		2C	Qu2	g38S 2			078l58lC04:CC	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078l58lC04:CC	C
I . iomona dt n	ND		C2	0u45	g38S 2			078l58lC04:CC	C
I . iomoforS	ND		14	0u7h	g38S 2			078l58lC04:CC	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078l58lC04:CC	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078l58lC04:CC	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078l58lC04:CC	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078l58lC04:CC	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078l58lC04:CC	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078l58lC04:CC	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078l58lC04:CC	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078l58lC04:CC	C
Dichlorodi9uoromethane	**2J7**	**y**	15	0u9h	g38S 2			078l58lC04:CC	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078l58lC04:CC	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078l58lC04:CC	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078l58lC04:CC	C
4,2-Dichloropropane	**TJ6**	**y**	12	0u64	g38S 2			078l58lC04:CC	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078l58lC04:CC	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078l58lC04:CC	C
Ethanol	**12**	**y**	94	4uh	g38S 2			078l58lC04:CC	C
EthFlben. ene	**5JA**	**y**	11	QuC	g38S 2			078l58lC04:CC	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078l58lC04:CC	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078l58lC04:CC	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078l58lC04:CC	C
MethFlene Chloride	**5J0**	**y B**	C7	Qu9	g38S 2			078l58lC04:CC	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078l58lC04:CC	C
m,p-XFlene	**28**		11	1u7	g38S 2			078l58lC04:CC	C
Ndp. a dint n	ND		16	2uC	g38S 2			078l58lC04:CC	C
o-XFlene	**41**	**y**	11	0uh6	g38S 2			078l58lC04:CC	C
c ayrnt n	ND		1C	1u2	g38S 2			078l58lC04:CC	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078l58lC04:CC	C
tert-ButFl alcohol (z Bx)	**TJ5**	**y**	C5	QuC	g38S 2			078l58lC04:CC	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078l58lC04:CC	C
zetrachloroethene	**2J6**	**y**	24	QuC	g38S 2			078l58lC04:CC	C
zoluene	**T2**		C9	0u50	g38S 2			078l58lC04:CC	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078l58lC04:CC	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078l58lC04:CC	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078l58lC04:CC	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078l58lC04:CC	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078l58lC04:CC	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078l58lC04:CC	C
Tnas. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078l58lC04:CC	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078l58lC04:CC	C
C,1,4-TnaS na yibnt znt n	ND		15	Qu6	g38S 2			078l58lC04:CC	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: BA-5V
Date Collected: 07/2T/24 0A:15
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-47
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O0	g38S 2			078158IC04:OC	C
Vet yi s. ionaEn	ND		C2	0u4C	g38S 2			078158IC04:OC	C
XFlenes, zotal	**12**		11	1u7	g38S 2			078158IC04:OC	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/25/21 04:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*		*07/25/21 04:11*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/25/21 04:11*	*1*

Client Sample ID: BA-45V
Date Collected: 07/2T/24 0A:55
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-48
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J1**	**y**	C6	0u50	g38S 2			078158IC05:00	C
BroS oEes. ioroS na dt n	ND		24	0u74	g38S 2			078158IC05:00	C
BroS oforS	ND		51	Ouh	g38S 2			078158IC05:00	C
BroS oS na dt n	ND		C9	0u54	g38S 2			078158IC05:00	C
I drbot anards. ioraEn	ND		2C	Ou2	g38S 2			078158IC05:00	C
I . iorobnt znt n	ND		12	0u60	g38S 2			078158IC05:00	C
I . iorona dt n	ND		C2	0u45	g38S 2			078158IC05:00	C
I . ioroforS	ND		14	0u7h	g38S 2			078158IC05:00	C
I . ioroS na dt n	ND		C0	0u22	g38S 2			078158IC05:00	C
seP-C,1-Des. iorona nt n	ND		10	0u54	g38S 2			078158IC05:00	C
seP-C,2-Des. ioropropnt n	ND		12	0u9h	g38S 2			078158IC05:00	C
DebroS os. ioroS na dt n	ND		42	Ou2	g38S 2			078158IC05:00	C
C,1-DebroS ona dt n	ND		2h	Ou2	g38S 2			078158IC05:00	C
C,1-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078158IC05:00	C
C,2-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078158IC05:00	C
C,4-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078158IC05:00	C
Dichlorodi9uoromethane	**1J6**	**y**	15	0u9h	g38S 2			078158IC05:00	C
C,C-Des. iorona dt n	ND		10	0u41	g38S 2			078158IC05:00	C
C,1-Des. iorona dt n	ND		10	0u59	g38S 2			078158IC05:00	C
C,C-Des. iorona nt n	ND		10	0u69	g38S 2			078158IC05:00	C
4,2-Dichloropropane	**1J1**	**y**	12	0u64	g38S 2			078158IC05:00	C
C,C-DefigoroS na dt n	ND		C40	0u99	g38S 2			078158IC05:00	C
DeeP-opropyi na nr(DIj v)	ND		1C	Ou5	g38S 2			078158IC05:00	C
Ethanol	**1T**	**y**	94	4uh	g38S 2			078158IC05:00	C
EthFlben. ene	**1J5**	**y**	11	OuC	g38S 2			078158IC05:00	C
v a yi-abgayi na nr(v TBv)	ND		1C	Ou1	g38S 2			078158IC05:00	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078158IC05:00	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078158IC05:00	C
MethFlene Chloride	**1J8**	**y B**	C7	Ou9	g38S 2			078158IC05:00	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078158IC05:00	C
m,p-XFlene	**48**	**y**	11	1u7	g38S 2			078158IC05:00	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC05:00	C
o-XFlene	**7J7**	**y**	11	0uh6	g38S 2			078158IC05:00	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC05:00	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	Ouh	g38S 2			078158IC05:00	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: BA-45V
Date Collected: 07/2T/24 0A:55
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-48
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	TJT	y	C5	OuC	g38S 2			078158IC05:00	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC05:00	C
zetrachloroethene	TJ0	y	24	OuC	g38S 2			078158IC05:00	C
zoluene	T8		C9	0u50	g38S 2			078158IC05:00	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC05:00	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC05:00	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC05:00	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078158IC05:00	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078158IC05:00	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078158IC05:00	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078158IC05:00	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC05:00	C
C,1,4-TmeS na yibnt znt n	ND		15	Ou6	g38S 2			078158IC05:00	C
C,2,5-TmeS na yibnt znt n	ND		15	Ou0	g38S 2			078158IC05:00	C
Vet yi s. iomeEn	ND		C2	0u4C	g38S 2			078158IC05:00	C
XFlenes, zotal	26		11	1u7	g38S 2			078158IC05:00	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*07/25/21 05:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 131*		*07/25/21 05:00*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/25/21 05:00*	*1*

Client Sample ID: B6-5V
Date Collected: 07/2T/24 40:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4A
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	4J2	y	C6	0u50	g38S 2			078148IC09:10	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC09:10	C
BmoS oforS	ND		51	Ouh	g38S 2			078148IC09:10	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC09:10	C
I drbot anands. iomeEn	ND		2C	Ou2	g38S 2			078148IC09:10	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC09:10	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC09:10	C
Chloro9orm	4J2	y	14	0u7h	g38S 2			078148IC09:10	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC09:10	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC09:10	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC09:10	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078148IC09:10	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078148IC09:10	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC09:10	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC09:10	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078148IC09:10	C
Dichlorodi9luoromethane	4J8	y	15	0u9h	g38S 2			078148IC09:10	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC09:10	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC09:10	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC09:10	C
4,2-Dichloropropane	TJ5	y	12	0u64	g38S 2			078148IC09:10	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC09:10	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5V
Date Collected: 07/2T/24 40:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-4A
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078148IC C9:10	C
Ethanol	**T8**	**y**	94	4uh	g38S 2			078148IC C9:10	C
EthFlben. ene	**4.B**	**y**	11	O.C	g38S 2			078148IC C9:10	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078148IC C9:10	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC C9:10	C
Isopropanol	**T2**	**y**	C10	0u96	g38S 2			078148IC C9:10	C
MethFlene Chloride	**1.5**	**y B**	C7	O.9	g38S 2			078148IC C9:10	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078148IC C9:10	C
m,p-XFlene	**8.4**	**y**	11	1u7	g38S 2			078148IC C9:10	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC C9:10	C
o-XFlene	**1.4**	**y**	11	0uh6	g38S 2			078148IC C9:10	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC C9:10	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078148IC C9:10	C
tert-ButFl alcohol (z Bx)	**2.1**	**y**	C5	O.C	g38S 2			078148IC C9:10	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148IC C9:10	C
zetrachloroethene	**TJA**	**y**	24	O.C	g38S 2			078148IC C9:10	C
zoluene	**28**		C9	0u50	g38S 2			078148IC C9:10	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC C9:10	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC C9:10	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078148IC C9:10	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078148IC C9:10	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078148IC C9:10	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078148IC C9:10	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148IC C9:10	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC C9:10	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078148IC C9:10	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC C9:10	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078148IC C9:10	C
XFlenes, zotal	**42**	**y**	11	1u7	g38S 2			078148IC C9:10	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*07/24/21 19:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/24/21 19:20*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*07/24/21 19:20*	*1*

Client Sample ID: B6-45V
Date Collected: 07/2T/24 40:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-20
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2.0**	**y**	C6	0u50	g38S 2			078148IC 10:C1	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 10:C1	C
BmoS oforS	ND		51	O.h	g38S 2			078148IC 10:C1	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 10:C1	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078148IC 10:C1	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 10:C1	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 10:C1	C
Chloro9orm	**5.7**	**y**	14	0u7h	g38S 2			078148IC 10:C1	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 10:C1	C

v gmofet P I diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-45V
Date Collected: 07/2T/24 40:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-20
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 10:C1	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 10:C1	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 10:C1	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 10:C1	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:C1	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:C1	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:C1	C
Dichlorodi9uoromethane	**4J6**	**y**	15	0u9h	g38S 2			078148IC 10:C1	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 10:C1	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 10:C1	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 10:C1	C
4,2-Dichloropropane	**TJ6**	**y**	12	0u64	g38S 2			078148IC 10:C1	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 10:C1	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148IC 10:C1	C
Ethanol	**TA**	**y**	94	4uh	g38S 2			078148IC 10:C1	C
EthFlben. ene	**45**	**y**	11	QuC	g38S 2			078148IC 10:C1	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 10:C1	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 10:C1	C
Isopropanol	**27**	**y**	C10	0u96	g38S 2			078148IC 10:C1	C
MethFlene Chloride	**1J5**	**y B**	C7	Qu9	g38S 2			078148IC 10:C1	C
Mna yi anmabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 10:C1	C
m,p-XFlene	**70**		11	1u7	g38S 2			078148IC 10:C1	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 10:C1	C
o-XFlene	**27**		11	0uh6	g38S 2			078148IC 10:C1	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 10:C1	C
anmaAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 10:C1	C
tert-ButFl alcohol (zBx)	**4J7**	**y**	C5	QuC	g38S 2			078148IC 10:C1	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148IC 10:C1	C
zetrachloroethene	**4J7**	**y**	24	QuC	g38S 2			078148IC 10:C1	C
zoluene	**2A**		C9	0u50	g38S 2			078148IC 10:C1	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 10:C1	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 10:C1	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 10:C1	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 10:C1	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 10:C1	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 10:C1	C
Tmes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 10:C1	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 10:C1	C
C,1,4-TmeS na yibnt znt n	ND		15	Qu6	g38S 2			078148IC 10:C1	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148IC 10:C1	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148IC 10:C1	C
XFlenes, zotal	**A7**		11	1u7	g38S 2			078148IC 10:C1	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*07/24/21 20:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 131*		*07/24/21 20:12*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/24/21 20:12*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B5-5V
Date Collected: 07/2T/24 40:25
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-24
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J6**	**y**	C6	0u50	g38S 2			078148IC 1C:04	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 1C:04	C
BmoS oforS	ND		51	Quh	g38S 2			078148IC 1C:04	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 1C:04	C
I drbot anands. ionEn	ND		2C	Qu2	g38S 2			078148IC 1C:04	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 1C:04	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 1C:04	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 1C:04	C
Chloromethane	**0JTA**	**y**	C0	0u22	g38S 2			078148IC 1C:04	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 1C:04	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 1C:04	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 1C:04	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 1C:04	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:04	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:04	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 1C:04	C
Dichlorodi9uoromethane	**4J8**	**y**	15	0u9h	g38S 2			078148IC 1C:04	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 1C:04	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 1C:04	C
4,4-Dichloroethene	**4J0**	**y**	10	0u69	g38S 2			078148IC 1C:04	C
4,2-Dichloropropane	**1J4**	**y**	12	0u64	g38S 2			078148IC 1C:04	C
C,C-DefigomoS na dt n	ND		C40	0u99	g38S 2			078148IC 1C:04	C
DeePopropyi na nm(DIj v)	ND		1C	Qu5	g38S 2			078148IC 1C:04	C
Ethanol	**54**	**y**	94	4uh	g38S 2			078148IC 1C:04	C
EthFlben. ene	**2JA**	**y**	11	QuC	g38S 2			078148IC 1C:04	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 1C:04	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 1C:04	C
Isopropanol	**T6**	**y**	C10	0u96	g38S 2			078148IC 1C:04	C
MethFlene Chloride	**1J6**	**y B**	C7	Qu9	g38S 2			078148IC 1C:04	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 1C:04	C
m,p-XFlene	**4T**	**y**	11	1u7	g38S 2			078148IC 1C:04	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 1C:04	C
o-XFlene	**6J1**	**y**	11	0uh6	g38S 2			078148IC 1C:04	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 1C:04	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 1C:04	C
tert-ButFl alcohol (z Bx)	**2JA**	**y**	C5	QuC	g38S 2			078148IC 1C:04	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148IC 1C:04	C
zetrachloroethene	**2J1**	**y**	24	QuC	g38S 2			078148IC 1C:04	C
zoluene	**T4**		C9	0u50	g38S 2			078148IC 1C:04	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 1C:04	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 1C:04	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 1C:04	C
C,C,C-Tnes. iomona dt n	ND		17	0u79	g38S 2			078148IC 1C:04	C
C,C,1-Tnes. iomona dt n	ND		17	0u76	g38S 2			078148IC 1C:04	C
Tnes. iomona nt n	ND		17	0u96	g38S 2			078148IC 1C:04	C
Tnes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 1C:04	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 1C:04	C
C,1,4-TnaS na yibnt znt n	ND		15	Qu6	g38S 2			078148IC 1C:04	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-5V
Date Collected: 07/2T/24 40:25
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-24
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 1C:04	C
Vet yi s. ionaEn	ND		C2	0.4C	g38S 2			078148IC 1C:04	C
XFlenes, zotal	**4A y**		11	1.7	g38S 2			078148IC 1C:04	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*07/24/21 21:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 131*		*07/24/21 21:04*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/24/21 21:04*	*1*

Client Sample ID: B5-45V
Date Collected: 07/2T/24 40:T1
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-22
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2J4 y**		C6	0.50	g38S 2			078148IC 1C:56	C
BnoS oEes. ionoS na dt n	ND		24	0.74	g38S 2			078148IC 1C:56	C
BnoS ofonS	ND		51	O.h	g38S 2			078148IC 1C:56	C
BnoS oS na dt n	ND		C9	0.54	g38S 2			078148IC 1C:56	C
I dnbot anands. ionaEn	ND		2C	O.2	g38S 2			078148IC 1C:56	C
I . ionobnt znt n	ND		12	0.60	g38S 2			078148IC 1C:56	C
I . ionona dt n	ND		C2	0.45	g38S 2			078148IC 1C:56	C
I . ionofonS	ND		14	0.7h	g38S 2			078148IC 1C:56	C
Chloromethane	**0J16 y**		C0	0.22	g38S 2			078148IC 1C:56	C
seP-C,1-Des. ionona nt n	ND		10	0.54	g38S 2			078148IC 1C:56	C
seP-C,2-Des. ionopropnt n	ND		12	0.9h	g38S 2			078148IC 1C:56	C
DebnoS os. ionoS na dt n	ND		42	O.2	g38S 2			078148IC 1C:56	C
C,1-DebnoS ona dt n	ND		2h	O.2	g38S 2			078148IC 1C:56	C
C,1-Des. ionobnt znt n	ND		20	O.5	g38S 2			078148IC 1C:56	C
C,2-Des. ionobnt znt n	ND		20	O.5	g38S 2			078148IC 1C:56	C
C,4-Des. ionobnt znt n	ND		20	O.5	g38S 2			078148IC 1C:56	C
Dichlorodig1uoromethane	**4J6 y**		15	0.9h	g38S 2			078148IC 1C:56	C
C,C-Des. ionona dt n	ND		10	0.41	g38S 2			078148IC 1C:56	C
C,1-Des. ionona dt n	ND		10	0.59	g38S 2			078148IC 1C:56	C
4,4-Dichloroethene	**AJ8 y**		10	0.69	g38S 2			078148IC 1C:56	C
4,2-Dichloropropane	**TJT y**		12	0.64	g38S 2			078148IC 1C:56	C
C,C-Deigonona dt n	ND		C40	0.99	g38S 2			078148IC 1C:56	C
DeeP-opnopyi na nn(Dlj v)	ND		1C	O.5	g38S 2			078148IC 1C:56	C
Ethanol	**T8 y**		94	4.h	g38S 2			078148IC 1C:56	C
EthFlben. ene	**45 y**		11	O.C	g38S 2			078148IC 1C:56	C
v a yi-abgayi na nn(v TBv)	ND		1C	O.1	g38S 2			078148IC 1C:56	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC 1C:56	C
Isopropanol	**26 y**		C10	0.96	g38S 2			078148IC 1C:56	C
MethFlene Chloride	**1JT y B**		C7	O.9	g38S 2			078148IC 1C:56	C
Mna yi anaabgayi na nn	ND		Ch	O.1	g38S 2			078148IC 1C:56	C
m,p-XFlene	**61**		11	1.7	g38S 2			078148IC 1C:56	C
Ndp. a dint n	ND		16	2.C	g38S 2			078148IC 1C:56	C
o-XFlene	**24 y**		11	0.h6	g38S 2			078148IC 1C:56	C
c ayrnt n	ND		1C	1.2	g38S 2			078148IC 1C:56	C
anaAS yi Mna yi v a nn(TAMv)	ND		1C	O.h	g38S 2			078148IC 1C:56	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-45V
Date Collected: 07/2T/24 40:T1
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-22
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	**TJ6**	**y**	C5	OuC	g38S 2			078148IC 1C:56	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078148IC 1C:56	C
Tnands. iomona nt n	ND		24	OuC	g38S 2			078148IC 1C:56	C
zoluene	**27**		C9	0u50	g38S 2			078148IC 1C:56	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 1C:56	C
andt P-C,2-Des. iomopmopnt n	ND		12	0u96	g38S 2			078148IC 1C:56	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 1C:56	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 1C:56	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 1C:56	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 1C:56	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078148IC 1C:56	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 1C:56	C
C,1,4-TneS na yibnt znt n	ND		15	Ou6	g38S 2			078148IC 1C:56	C
C,2,5-TneS na yibnt znt n	ND		15	Ou0	g38S 2			078148IC 1C:56	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078148IC 1C:56	C
XFlenes, zotal	**85**		11	1u7	g38S 2			078148IC 1C:56	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*07/24/21 21:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 131*		*07/24/21 21:56*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/24/21 21:56*	*1*

Client Sample ID: B25-5V
Date Collected: 07/2T/24 44:0A
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2T
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4JA**	**y**	C6	0u50	g38S 2			078158IC CC:16	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC CC:16	C
BmoS oforS	ND		51	Ouh	g38S 2			078158IC CC:16	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC CC:16	C
I drbot anands. ionEn	ND		2C	Ou2	g38S 2			078158IC CC:16	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC CC:16	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC CC:16	C
I . iomoforS	ND		14	0u7h	g38S 2			078158IC CC:16	C
Chloromethane	**0JI1**	**y**	C0	0u22	g38S 2			078158IC CC:16	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC CC:16	C
seP-C,2-Des. iomopmopnt n	ND		12	0u9h	g38S 2			078158IC CC:16	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078158IC CC:16	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078158IC CC:16	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC CC:16	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC CC:16	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC CC:16	C
DichlorodiSuoromethane	**2JI**	**y**	15	0u9h	g38S 2			078158IC CC:16	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC CC:16	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC CC:16	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC CC:16	C
4,2-Dichloropropane	**1JT**	**y**	12	0u64	g38S 2			078158IC CC:16	C
C,C-DeSigomona dt n	ND		C40	0u99	g38S 2			078158IC CC:16	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B25-5V
Date Collected: 07/2T/24 44:0A
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2T
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078l58lC OC:16	C
Ethanol	**12**	**y**	94	4uh	g38S 2			078l58lC OC:16	C
EthFlben. ene	**TJT**	**y**	11	O.C	g38S 2			078l58lC OC:16	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078l58lC OC:16	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078l58lC OC:16	C
Isopropanol	**2A**	**y**	C10	0u96	g38S 2			078l58lC OC:16	C
MethFlene Chloride	**1J7**	**y B**	C7	O.9	g38S 2			078l58lC OC:16	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078l58lC OC:16	C
m,p-XFlene	**42**	**y**	11	1u7	g38S 2			078l58lC OC:16	C
Ndp. a dint n	ND		16	2uC	g38S 2			078l58lC OC:16	C
o-XFlene	**5J2**	**y**	11	0uh6	g38S 2			078l58lC OC:16	C
c ayrnt n	ND		1C	1u2	g38S 2			078l58lC OC:16	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078l58lC OC:16	C
tert-ButFl alcohol (z Bx)	**2J8**	**y**	C5	O.C	g38S 2			078l58lC OC:16	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078l58lC OC:16	C
zetrachloroethene	**6J0**	**y**	24	O.C	g38S 2			078l58lC OC:16	C
zoluene	**T6**		C9	0u50	g38S 2			078l58lC OC:16	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078l58lC OC:16	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078l58lC OC:16	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078l58lC OC:16	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078l58lC OC:16	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078l58lC OC:16	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078l58lC OC:16	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078l58lC OC:16	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078l58lC OC:16	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078l58lC OC:16	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078l58lC OC:16	C
Vet yi s. iomaEn	ND		C2	0u4C	g38S 2			078l58lC OC:16	C
XFlenes, zotal	**47**	**y**	11	1u7	g38S 2			078l58lC OC:16	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/25/21 11:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 131*		*07/25/21 11:26*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/25/21 11:26*	*1*

Client Sample ID: B25-45V
Date Collected: 07/2T/24 44:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-21
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4JT**	**y**	C6	0u50	g38S 2			078l48lC 12:40	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078l48lC 12:40	C
BmoS oforS	ND		51	O.h	g38S 2			078l48lC 12:40	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078l48lC 12:40	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078l48lC 12:40	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078l48lC 12:40	C
I . iomona dt n	ND		C2	0u45	g38S 2			078l48lC 12:40	C
I . iomofors	ND		14	0u7h	g38S 2			078l48lC 12:40	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078l48lC 12:40	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B25-45V
Date Collected: 07/2T/24 44:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-21
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 12:40	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 12:40	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 12:40	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 12:40	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:40	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:40	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:40	C
Dichlorodi9uoromethane	**4J5**	**y**	15	0u9h	g38S 2			078148IC 12:40	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 12:40	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 12:40	C
4,4-Dichloroethene	**4J2**	**y**	10	0u69	g38S 2			078148IC 12:40	C
4,2-Dichloropropane	**1J4**	**y**	12	0u64	g38S 2			078148IC 12:40	C
C,C-Debigomona dt n	ND		C40	0u99	g38S 2			078148IC 12:40	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148IC 12:40	C
Ethanol	**14**	**y**	94	4uh	g38S 2			078148IC 12:40	C
EthFlben. ene	**2J8**	**y**	11	QuC	g38S 2			078148IC 12:40	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 12:40	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 12:40	C
Isopropanol	**28**	**y**	C10	0u96	g38S 2			078148IC 12:40	C
MethFlene Chloride	**1J5**	**y B**	C7	Qu9	g38S 2			078148IC 12:40	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 12:40	C
m,p-XFlene	**4T**	**y**	11	1u7	g38S 2			078148IC 12:40	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 12:40	C
o-XFlene	**5J4**	**y**	11	0uh6	g38S 2			078148IC 12:40	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 12:40	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 12:40	C
tert-ButFl alcohol (zBx)	**2J4**	**y**	C5	QuC	g38S 2			078148IC 12:40	C
C,C,1,1-Tnards. iomona dt n	ND		24	QuC	g38S 2			078148IC 12:40	C
Tnards. iomona nt n	ND		24	QuC	g38S 2			078148IC 12:40	C
zoluene	**T4**		C9	0u50	g38S 2			078148IC 12:40	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 12:40	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 12:40	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 12:40	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 12:40	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 12:40	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 12:40	C
Tmes. iomobigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 12:40	C
C,C,1-Tmes. iomo-C,1,1-anbigomona dt n	ND		2h	1u2	g38S 2			078148IC 12:40	C
C,1,4-TmeS na yibnt znt n	ND		15	Qu6	g38S 2			078148IC 12:40	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148IC 12:40	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148IC 12:40	C
XFlenes, zotal	**48**	**y**	11	1u7	g38S 2			078148IC 12:40	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/24/21 23:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/24/21 23:40*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/24/21 23:40*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B26-5V
Date Collected: 07/2T/24 44:T0
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-25
Matri3: x ir

x nalFte	Result	f ualiger	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**0JA7**	**y**	C6	0u50	g38S 2			078158IC00:21	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC00:21	C
BmoS oforS	ND		51	Quh	g38S 2			078158IC00:21	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC00:21	C
I drbot anands. ionsEn	ND		2C	Qu2	g38S 2			078158IC00:21	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC00:21	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC00:21	C
I . iomoforS	ND		14	0u7h	g38S 2			078158IC00:21	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078158IC00:21	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC00:21	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC00:21	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078158IC00:21	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078158IC00:21	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:21	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:21	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC00:21	C
Dichlorodi9uoromethane	**4J8**	**y**	15	0u9h	g38S 2			078158IC00:21	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC00:21	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC00:21	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC00:21	C
4,2-Dichloropropane	**TJA**	**y**	12	0u64	g38S 2			078158IC00:21	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078158IC00:21	C
DeePopropyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078158IC00:21	C
Ethanol	**12**	**y**	94	4uh	g38S 2			078158IC00:21	C
EthFlben. ene	**4J6**	**y**	11	QuC	g38S 2			078158IC00:21	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078158IC00:21	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078158IC00:21	C
Isopropanol	**T2**	**y**	C10	0u96	g38S 2			078158IC00:21	C
MethFlene Chloride	**1J5**	**y B**	C7	Qu9	g38S 2			078158IC00:21	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078158IC00:21	C
m,p-XFlene	**6J6**	**y**	11	1u7	g38S 2			078158IC00:21	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC00:21	C
o-XFlene	**TJ2**	**y**	11	0uh6	g38S 2			078158IC00:21	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC00:21	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078158IC00:21	C
tert-ButFl alcohol (z Bx)	**TJ4**	**y**	C5	QuC	g38S 2			078158IC00:21	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078158IC00:21	C
Tnands. iomona nt n	ND		24	QuC	g38S 2			078158IC00:21	C
zoluene	**2A**		C9	0u50	g38S 2			078158IC00:21	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC00:21	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC00:21	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC00:21	C
C,C,C-Tnes. iomona dt n	ND		17	0u79	g38S 2			078158IC00:21	C
C,C,1-Tnes. iomona dt n	ND		17	0u76	g38S 2			078158IC00:21	C
Tnes. iomona nt n	ND		17	0u96	g38S 2			078158IC00:21	C
Tnes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078158IC00:21	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC00:21	C
C,1,4-TnesS na yibnt znt n	ND		15	Qu6	g38S 2			078158IC00:21	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B26-5V
Date Collected: 07/2T/24 44:T0
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-25
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC00:21	C
Vet yi s. ionaEn	ND		C2	0.4C	g38S 2			078158IC00:21	C
XFlenes, zotal	**AJ8**	**y**	11	1.7	g38S 2			078158IC00:21	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*07/25/21 00:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 131*		*07/25/21 00:32*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/25/21 00:32*	*1*

Client Sample ID: B26-45V
Date Collected: 07/2T/24 44:12
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-26
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J4**	**y**	C6	0.50	g38S 2			078158IC0C:14	C
BroS oEes. ioroS na dt n	ND		24	0.74	g38S 2			078158IC0C:14	C
BroS oforS	ND		51	O.h	g38S 2			078158IC0C:14	C
BroS oS na dt n	ND		C9	0.54	g38S 2			078158IC0C:14	C
I drbot anards. ioraEn	ND		2C	O.2	g38S 2			078158IC0C:14	C
I . iorobnt znt n	ND		12	0.60	g38S 2			078158IC0C:14	C
I . iorona dt n	ND		C2	0.45	g38S 2			078158IC0C:14	C
I . ioroforS	ND		14	0.7h	g38S 2			078158IC0C:14	C
I . ioroS na dt n	ND		C0	0.22	g38S 2			078158IC0C:14	C
seP-C,1-Des. iorona nt n	ND		10	0.54	g38S 2			078158IC0C:14	C
seP-C,2-Des. ioropropnt n	ND		12	0.9h	g38S 2			078158IC0C:14	C
DebroS os. ioroS na dt n	ND		42	O.2	g38S 2			078158IC0C:14	C
C,1-DebroS ona dt n	ND		2h	O.2	g38S 2			078158IC0C:14	C
C,1-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC0C:14	C
C,2-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC0C:14	C
C,4-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC0C:14	C
Dichlorodi9uoromethane	**4J6**	**y**	15	0.9h	g38S 2			078158IC0C:14	C
C,C-Des. iorona dt n	ND		10	0.41	g38S 2			078158IC0C:14	C
C,1-Des. iorona dt n	ND		10	0.59	g38S 2			078158IC0C:14	C
C,C-Des. iorona nt n	ND		10	0.69	g38S 2			078158IC0C:14	C
4,2-Dichloropropane	**TJ7**	**y**	12	0.64	g38S 2			078158IC0C:14	C
C,C-DefigoroS na dt n	ND		C40	0.99	g38S 2			078158IC0C:14	C
DeeP-opropyi na nr(Dlj v)	ND		1C	O.5	g38S 2			078158IC0C:14	C
Ethanol	**TA**	**y**	94	4.h	g38S 2			078158IC0C:14	C
EthFlben. ene	**4J5**	**y**	11	O.C	g38S 2			078158IC0C:14	C
v a yi-abgayi na nr(v TBv)	ND		1C	O.1	g38S 2			078158IC0C:14	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC0C:14	C
Isopropanol	**28**	**y**	C10	0.96	g38S 2			078158IC0C:14	C
MethFlene Chloride	**1JT**	**y B**	C7	O.9	g38S 2			078158IC0C:14	C
Mna yi anraabgayi na nm	ND		Ch	O.1	g38S 2			078158IC0C:14	C
m,p-XFlene	**6JT**	**y**	11	1.7	g38S 2			078158IC0C:14	C
Ndp. a dint n	ND		16	2.C	g38S 2			078158IC0C:14	C
o-XFlene	**2J8**	**y**	11	0.h6	g38S 2			078158IC0C:14	C
c ayrnt n	ND		1C	1.2	g38S 2			078158IC0C:14	C
anra-AS yi Mna yi v a nr(TAMv)	ND		1C	O.h	g38S 2			078158IC0C:14	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B26-45V
Date Collected: 07/2T/24 44:12
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-26
Matri3: x ir

x nalFte	Result	f ualifier	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	2J0	y	C5	OuC	g38S 2			078158IC0C:14	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC0C:14	C
Tnands. iomona nt n	ND		24	OuC	g38S 2			078158IC0C:14	C
zoluene	2A		C9	0u50	g38S 2			078158IC0C:14	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC0C:14	C
andt P-C,2-Des. iomopmopnt n	ND		12	0u96	g38S 2			078158IC0C:14	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC0C:14	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078158IC0C:14	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078158IC0C:14	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078158IC0C:14	C
Tmes. iomofigomoS na dt n	ND		1h	OuZ	g38S 2			078158IC0C:14	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1uZ	g38S 2			078158IC0C:14	C
C,1,4-TneS na yibnt znt n	ND		15	OuG	g38S 2			078158IC0C:14	C
C,2,5-TneS na yibnt znt n	ND		15	OuO	g38S 2			078158IC0C:14	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078158IC0C:14	C
XFlenes, zotal	AJ4	y	11	1u7	g38S 2			078158IC0C:14	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 01:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/25/21 01:24*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/25/21 01:24*	*1*

Client Sample ID: B27-5V
Date Collected: 07/2T/24 44:51
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-27
Matri3: x ir

x nalFte	Result	f ualifier	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	0J70	y	C6	0u50	g38S 2			078158IC01:C7	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC01:C7	C
BmoS oforS	ND		51	Ouh	g38S 2			078158IC01:C7	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC01:C7	C
I drbot anands. ionEn	ND		2C	OuZ	g38S 2			078158IC01:C7	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC01:C7	C
I . iomona dt n	ND		CZ	0u45	g38S 2			078158IC01:C7	C
Chloro9orm	4J4	y	14	0u7h	g38S 2			078158IC01:C7	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078158IC01:C7	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC01:C7	C
seP-C,2-Des. iomopmopnt n	ND		12	0u9h	g38S 2			078158IC01:C7	C
DebmoS os. iomoS na dt n	ND		42	OuZ	g38S 2			078158IC01:C7	C
C,1-DebmoS ona dt n	ND		2h	OuZ	g38S 2			078158IC01:C7	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC01:C7	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC01:C7	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC01:C7	C
Dichlorodi9uoromethane	4JA	y	15	0u9h	g38S 2			078158IC01:C7	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC01:C7	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC01:C7	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC01:C7	C
4,2-Dichloropropane	7J5	y	12	0u64	g38S 2			078158IC01:C7	C
4,4-Di9uoroethane	4J2	y	C40	0u99	g38S 2			078158IC01:C7	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B27-5V
Date Collected: 07/2T/24 44:51
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-27
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078158IC01:C7	C
Ethanol	**62**	**y**	94	4uh	g38S 2			078158IC01:C7	C
EthFlben. ene	**4J1**	**y**	11	O.C	g38S 2			078158IC01:C7	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078158IC01:C7	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC01:C7	C
Isopropanol	**T7**	**y**	C10	0u96	g38S 2			078158IC01:C7	C
MethFlene Chloride	**1J7**	**y B**	C7	O.9	g38S 2			078158IC01:C7	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078158IC01:C7	C
m,p-XFlene	**5JT**	**y**	11	1u7	g38S 2			078158IC01:C7	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC01:C7	C
o-XFlene	**2J5**	**y**	11	0uh6	g38S 2			078158IC01:C7	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC01:C7	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078158IC01:C7	C
tert-ButFl alcohol (z Bx)	**1J4**	**y**	C5	O.C	g38S 2			078158IC01:C7	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078158IC01:C7	C
Tnands. iomona nt n	ND		24	O.C	g38S 2			078158IC01:C7	C
zoluene	**TA**		C9	0u50	g38S 2			078158IC01:C7	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC01:C7	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC01:C7	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC01:C7	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158IC01:C7	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158IC01:C7	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158IC01:C7	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078158IC01:C7	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC01:C7	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078158IC01:C7	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC01:C7	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078158IC01:C7	C
XFlenes, zotal	**7J8**	**y**	11	1u7	g38S 2			078158IC01:C7	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*07/25/21 02:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/25/21 02:17*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/25/21 02:17*	*1*

Client Sample ID: B27-45V
Date Collected: 07/2T/24 42:01
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-28
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**0JA6**	**y**	C6	0u50	g38S 2			078158IC02:09	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC02:09	C
BmoS oforS	ND		51	O.h	g38S 2			078158IC02:09	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC02:09	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078158IC02:09	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC02:09	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC02:09	C
Chloro9orm	**2J5**	**y**	14	0u7h	g38S 2			078158IC02:09	C
Chloromethane	**0J50**	**y**	C0	0u22	g38S 2			078158IC02:09	C

vgmofet PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B27-45V
Date Collected: 07/2T/24 42:01
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-28
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC02:09	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC02:09	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078158IC02:09	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078158IC02:09	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:09	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:09	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC02:09	C
Dichlorodi9uoromethane	**4JA**	**y**	15	0u9h	g38S 2			078158IC02:09	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC02:09	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC02:09	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC02:09	C
4,2-Dichloropropane	**7J4**	**y**	12	0u64	g38S 2			078158IC02:09	C
4,4-Di9uoroethane	**4J4**	**y**	C40	0u99	g38S 2			078158IC02:09	C
DeePopropyi na nm(Dlj v)	ND		1C	Ou5	g38S 2			078158IC02:09	C
Ethanol	**64**	**y**	94	4uh	g38S 2			078158IC02:09	C
EthFlben. ene	**4J1**	**y**	11	OuC	g38S 2			078158IC02:09	C
v a yi-abgayi na nm(v TBv)	ND		1C	Ou1	g38S 2			078158IC02:09	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078158IC02:09	C
Isopropanol	**T7**	**y**	C10	0u96	g38S 2			078158IC02:09	C
MethFlene Chloride	**1J7**	**y B**	C7	Ou9	g38S 2			078158IC02:09	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078158IC02:09	C
m,p-XFlene	**5J6**	**y**	11	1u7	g38S 2			078158IC02:09	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC02:09	C
o-XFlene	**2J1**	**y**	11	0uh6	g38S 2			078158IC02:09	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC02:09	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Ouh	g38S 2			078158IC02:09	C
tert-ButFl alcohol (z Bx)	**TJ1**	**y**	C5	OuC	g38S 2			078158IC02:09	C
C,C,1,1-Tnards. iomona dt n	ND		24	OuC	g38S 2			078158IC02:09	C
Tnards. iomona nt n	ND		24	OuC	g38S 2			078158IC02:09	C
zoluene	**T6**		C9	0u50	g38S 2			078158IC02:09	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC02:09	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC02:09	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC02:09	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158IC02:09	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158IC02:09	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158IC02:09	C
Tnas. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078158IC02:09	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC02:09	C
C,1,4-TnaS na yibnt znt n	ND		15	Ou6	g38S 2			078158IC02:09	C
C,2,5-TnaS na yibnt znt n	ND		15	Ou0	g38S 2			078158IC02:09	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078158IC02:09	C
XFlenes, zotal	**8J0**	**y**	11	1u7	g38S 2			078158IC02:09	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 03:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/25/21 03:09*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*07/25/21 03:09*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B21-5V
Date Collected: 07/2T/24 42:25
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2A
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**4J0**	**y**	C6	0u50	g38S 2			078158IC04:0C	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC04:0C	C
BmoS oforS	ND		51	Quh	g38S 2			078158IC04:0C	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC04:0C	C
I drbot anands. ionsEn	ND		2C	Qu2	g38S 2			078158IC04:0C	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC04:0C	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC04:0C	C
Chloro9orm	**4J4**	**y**	14	0u7h	g38S 2			078158IC04:0C	C
Chloromethane	**0J12**	**y**	C0	0u22	g38S 2			078158IC04:0C	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC04:0C	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC04:0C	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078158IC04:0C	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078158IC04:0C	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC04:0C	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC04:0C	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078158IC04:0C	C
Dichlorodi9uoromethane	**4JA**	**y**	15	0u9h	g38S 2			078158IC04:0C	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC04:0C	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC04:0C	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC04:0C	C
4,2-Dichloropropane	**5J0**	**y**	12	0u64	g38S 2			078158IC04:0C	C
4,4-Di9uoroethane	**4J2**	**y**	C40	0u99	g38S 2			078158IC04:0C	C
DeePopropyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078158IC04:0C	C
Ethanol	**5T**	**y**	94	4uh	g38S 2			078158IC04:0C	C
EthFlben. ene	**4J6**	**y**	11	QuC	g38S 2			078158IC04:0C	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078158IC04:0C	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078158IC04:0C	C
Isopropanol	**T4**	**y**	C10	0u96	g38S 2			078158IC04:0C	C
MethFlene Chloride	**1J1**	**y B**	C7	Qu9	g38S 2			078158IC04:0C	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078158IC04:0C	C
m,p-XFlene	**5J8**	**y**	11	1u7	g38S 2			078158IC04:0C	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC04:0C	C
o-XFlene	**2J1**	**y**	11	0uh6	g38S 2			078158IC04:0C	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC04:0C	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078158IC04:0C	C
tert-ButFl alcohol (z Bx)	**TJ6**	**y**	C5	QuC	g38S 2			078158IC04:0C	C
C,C,1,1-Tnands. ionona dt n	ND		24	QuC	g38S 2			078158IC04:0C	C
Tnands. ionona nt n	ND		24	QuC	g38S 2			078158IC04:0C	C
zoluene	**2A**		C9	0u50	g38S 2			078158IC04:0C	C
andt P-C,1-Des. ionona nt n	ND		10	0u50	g38S 2			078158IC04:0C	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC04:0C	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC04:0C	C
C,C,C-Tnas. ionona dt n	ND		17	0u79	g38S 2			078158IC04:0C	C
C,C,1-Tnas. ionona dt n	ND		17	0u76	g38S 2			078158IC04:0C	C
Tnas. ionona nt n	ND		17	0u96	g38S 2			078158IC04:0C	C
Tnas. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078158IC04:0C	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC04:0C	C
C,1,4-TnaS na yibnt znt n	ND		15	Qu6	g38S 2			078158IC04:0C	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B21-5V
Date Collected: 07/2T/24 42:25
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-2A
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC04:0C	C
Vet yi s. ionaEn	ND		C2	0.4C	g38S 2			078158IC04:0C	C
XFlenes, zotal	**8.J2**	**y**	11	1.7	g38S 2			078158IC04:0C	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 04:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/25/21 04:01*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/25/21 04:01*	*1*

Client Sample ID: B21-45V
Date Collected: 07/2T/24 42:T5
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T0
Matri3: x ir

x nalFte	Result	f ualig1er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2.J4**	**y**	C6	0.50	g38S 2			078158IC04:52	C
BroS oEes. ioroS na dt n	ND		24	0.74	g38S 2			078158IC04:52	C
BroS oforS	ND		51	O.h	g38S 2			078158IC04:52	C
BroS oS na dt n	ND		C9	0.54	g38S 2			078158IC04:52	C
I drbot anards. ioraEn	ND		2C	O.2	g38S 2			078158IC04:52	C
I . iorobnt znt n	ND		12	0.60	g38S 2			078158IC04:52	C
I . iorona dt n	ND		C2	0.45	g38S 2			078158IC04:52	C
Chloro9orm	**6.J5**	**y**	14	0.7h	g38S 2			078158IC04:52	C
Chloromethane	**0.J50**	**y**	C0	0.22	g38S 2			078158IC04:52	C
seP-C,1-Des. iorona nt n	ND		10	0.54	g38S 2			078158IC04:52	C
seP-C,2-Des. ioropropnt n	ND		12	0.9h	g38S 2			078158IC04:52	C
DebroS os. ioroS na dt n	ND		42	O.2	g38S 2			078158IC04:52	C
C,1-DebroS ona dt n	ND		2h	O.2	g38S 2			078158IC04:52	C
C,1-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC04:52	C
C,2-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC04:52	C
C,4-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC04:52	C
Dichlorodi9luoromethane	**4.J7**	**y**	15	0.9h	g38S 2			078158IC04:52	C
C,C-Des. iorona dt n	ND		10	0.41	g38S 2			078158IC04:52	C
C,1-Des. iorona dt n	ND		10	0.59	g38S 2			078158IC04:52	C
C,C-Des. iorona nt n	ND		10	0.69	g38S 2			078158IC04:52	C
4,2-Dichloropropane	**1.J7**	**y**	12	0.64	g38S 2			078158IC04:52	C
C,C-DefigoroS na dt n	ND		C40	0.99	g38S 2			078158IC04:52	C
DeeP-opropopyi na nr(Dlj v)	ND		1C	O.5	g38S 2			078158IC04:52	C
Ethanol	**1A**	**y**	94	4.h	g38S 2			078158IC04:52	C
EthFlben. ene	**TJ7**	**y**	11	O.C	g38S 2			078158IC04:52	C
v a yi-abgayi na nr(v TBv)	ND		1C	O.1	g38S 2			078158IC04:52	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC04:52	C
Isopropanol	**2A**	**y**	C10	0.96	g38S 2			078158IC04:52	C
MethFlene Chloride	**1.JT**	**y B**	C7	O.9	g38S 2			078158IC04:52	C
Mna yi anraabgayi na nm	ND		Ch	O.1	g38S 2			078158IC04:52	C
m,p-XFlene	**AJ1**	**y**	11	1.7	g38S 2			078158IC04:52	C
Ndp. a dint n	ND		16	2.C	g38S 2			078158IC04:52	C
o-XFlene	**5.JT**	**y**	11	0.h6	g38S 2			078158IC04:52	C
c ayrnt n	ND		1C	1.2	g38S 2			078158IC04:52	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	O.h	g38S 2			078158IC04:52	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B21-45V
Date Collected: 07/2T/24 42:T5
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T0
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	TJ8	y	C5	OuC	g38S 2			078158IC04:52	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC04:52	C
Tnands. iomona nt n	ND		24	OuC	g38S 2			078158IC04:52	C
zoluene	2A		C9	0u50	g38S 2			078158IC04:52	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC04:52	C
andt P-C,2-Des. iomopmopnt n	ND		12	0u96	g38S 2			078158IC04:52	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC04:52	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078158IC04:52	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078158IC04:52	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078158IC04:52	C
Tmes. iomofigomoS na dt n	ND		1h	Ou2	g38S 2			078158IC04:52	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC04:52	C
C,1,4-TneS na yibnt znt n	ND		15	Ou6	g38S 2			078158IC04:52	C
C,2,5-TneS na yibnt znt n	ND		15	Ou0	g38S 2			078158IC04:52	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078158IC04:52	C
XFlenes, zotal	45	y	11	1u7	g38S 2			078158IC04:52	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 04:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 131*		*07/25/21 04:53*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/25/21 04:53*	*1*

Client Sample ID: B48-5V
Date Collected: 07/2T/24 42:18
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T4
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	2J0	y	C6	0u50	g38S 2			078158IC05:45	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC05:45	C
BmoS ofomS	ND		51	Ouh	g38S 2			078158IC05:45	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158IC05:45	C
I drbot anands. ionEn	ND		2C	Ou2	g38S 2			078158IC05:45	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC05:45	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC05:45	C
I . iomofomS	ND		14	0u7h	g38S 2			078158IC05:45	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078158IC05:45	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC05:45	C
seP-C,2-Des. iomopmopnt n	ND		12	0u9h	g38S 2			078158IC05:45	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078158IC05:45	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078158IC05:45	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC05:45	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC05:45	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC05:45	C
Dichlorodi9uoromethane	4J5	y	15	0u9h	g38S 2			078158IC05:45	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC05:45	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC05:45	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC05:45	C
4,2-Dichloropropane	5J4	y	12	0u64	g38S 2			078158IC05:45	C
4,4-Di9uoroethane	4J0	y	C40	0u99	g38S 2			078158IC05:45	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B48-5V
Date Collected: 07/2T/24 42:18
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T4
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078158IC05:45	C
Ethanol	**1A**	**y**	94	4uh	g38S 2			078158IC05:45	C
EthFlben. ene	**2.J2**	**y**	11	O.C	g38S 2			078158IC05:45	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078158IC05:45	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC05:45	C
Isopropanol	**TT**	**y**	C10	0u96	g38S 2			078158IC05:45	C
MethFlene Chloride	**1J1**	**y B**	C7	O.9	g38S 2			078158IC05:45	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078158IC05:45	C
S ,p-Xyint n	ND		11	1u7	g38S 2			078158IC05:45	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC05:45	C
o-XFlene	**5JT**	**y**	11	0uh6	g38S 2			078158IC05:45	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC05:45	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078158IC05:45	C
tert-ButFl alcohol (z Bx)	**TJ.B**	**y**	C5	O.C	g38S 2			078158IC05:45	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078158IC05:45	C
zetrachloroethene	**8J.4**	**y**	24	O.C	g38S 2			078158IC05:45	C
zoluene	**2A**		C9	0u50	g38S 2			078158IC05:45	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC05:45	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC05:45	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC05:45	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158IC05:45	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158IC05:45	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158IC05:45	C
zrichloro9luoromethane	**4J1**	**y**	1h	O.2	g38S 2			078158IC05:45	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC05:45	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078158IC05:45	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158IC05:45	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078158IC05:45	C
XFlenes, zotal	**5JT**	**y**	11	1u7	g38S 2			078158IC05:45	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*		*07/25/21 05:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 131*		*07/25/21 05:45*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/25/21 05:45*	*1*

Client Sample ID: B48-45V
Date Collected: 07/2T/24 42:56
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T2
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**7J0**	**y**	C6	0u50	g38S 2			078158IC06:27	C
BnoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158IC06:27	C
BnoS oforS	ND		51	O.h	g38S 2			078158IC06:27	C
BnoS oS na dt n	ND		C9	0u54	g38S 2			078158IC06:27	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078158IC06:27	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158IC06:27	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158IC06:27	C
I . iomoforS	ND		14	0u7h	g38S 2			078158IC06:27	C
Chloromethane	**0.56**	**y**	C0	0u22	g38S 2			078158IC06:27	C

vgmofet PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B48-45V
Date Collected: 07/2T/24 42:56
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T2
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158IC06:27	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158IC06:27	C
DebmoS os. iomoS na dt n	ND		42	Ou2	g38S 2			078158IC06:27	C
C,1-DebmoS ona dt n	ND		2h	Ou2	g38S 2			078158IC06:27	C
C,1-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC06:27	C
C,2-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC06:27	C
C,4-Des. iomobnt znt n	ND		20	Ou5	g38S 2			078158IC06:27	C
Dichlorodi9uoromethane	**4JA**	**y**	15	0u9h	g38S 2			078158IC06:27	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158IC06:27	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158IC06:27	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158IC06:27	C
4,2-Dichloropropane	**5JI**	**y**	12	0u64	g38S 2			078158IC06:27	C
4,4-Di9uoroethane	**4JI**	**y**	C40	0u99	g38S 2			078158IC06:27	C
DeePopmopyi na nm(Dlj v)	ND		1C	Ou5	g38S 2			078158IC06:27	C
Ethanol	**57**	**y**	94	4uh	g38S 2			078158IC06:27	C
EthFlben. ene	**1JJ**	**y**	11	OuC	g38S 2			078158IC06:27	C
v a yi-abgayi na nm(v TBv)	ND		1C	Ou1	g38S 2			078158IC06:27	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078158IC06:27	C
Isopropanol	**TT**	**y**	C10	0u96	g38S 2			078158IC06:27	C
MethFlene Chloride	**1JB**	**y B**	C7	Ou9	g38S 2			078158IC06:27	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078158IC06:27	C
m,p-XFlene	**4T**	**y**	11	1u7	g38S 2			078158IC06:27	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158IC06:27	C
o-XFlene	**7JB**	**y**	11	0uh6	g38S 2			078158IC06:27	C
c ayrnt n	ND		1C	1u2	g38S 2			078158IC06:27	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Ouh	g38S 2			078158IC06:27	C
tert-ButFl alcohol (zBx)	**1JI**	**y**	C5	OuC	g38S 2			078158IC06:27	C
C,C,1,1-Tnands. iomona dt n	ND		24	OuC	g38S 2			078158IC06:27	C
zetrachloroethene	**47**	**y**	24	OuC	g38S 2			078158IC06:27	C
zoluene	**T2**		C9	0u50	g38S 2			078158IC06:27	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC06:27	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC06:27	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158IC06:27	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158IC06:27	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158IC06:27	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158IC06:27	C
zrichloro9uoromethane	**4JB**	**y**	1h	Ou2	g38S 2			078158IC06:27	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC06:27	C
C,1,4-TnaS na yibnt znt n	ND		15	Ou6	g38S 2			078158IC06:27	C
C,2,5-TnaS na yibnt znt n	ND		15	Ou0	g38S 2			078158IC06:27	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078158IC06:27	C
XFlenes, zotal	**24**	**y**	11	1u7	g38S 2			078158IC06:27	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 06:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 131*		*07/25/21 06:37*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/25/21 06:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B47-5V
Date Collected: 07/2T/24 4T:08
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-TT
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2J1**	**y**	1C	0u66	g38S 2			078168lCC7:52	Q.2CC
BmoS oEes. iomoS na dt n	ND		44	0u9h	g38S 2			078168lCC7:52	Q.2CC
BmoS oforS	ND		6h	1u2	g38S 2			078168lCC7:52	Q.2CC
BmoS oS na dt n	ND		15	0u70	g38S 2			078168lCC7:52	Q.2CC
I drbot anands. ionsEn	ND		4C	Q.7	g38S 2			078168lCC7:52	Q.2CC
I . iomobnt znt n	ND		20	0u7h	g38S 2			078168lCC7:52	Q.2CC
I . iomona dt n	ND		C7	0u59	g38S 2			078168lCC7:52	Q.2CC
I . iomoforS	ND		21	Q.0	g38S 2			078168lCC7:52	Q.2CC
Chloromethane	**0J74**	**y**	C4	0u44	g38S 2			078168lCC7:52	Q.2CC
seP-C,1-Des. iomona nt n	ND		16	0u7C	g38S 2			078168lCC7:52	Q.2CC
seP-C,2-Des. iomopropnt n	ND		20	Q.2	g38S 2			078168lCC7:52	Q.2CC
DebmoS os. iomoS na dt n	ND		56	Q.7	g38S 2			078168lCC7:52	Q.2CC
C,1-DebmoS ona dt n	ND		50	Q.h	g38S 2			078168lCC7:52	Q.2CC
C,1-Des. iomobnt znt n	ND		29	Q.9	g38S 2			078168lCC7:52	Q.2CC
C,2-Des. iomobnt znt n	ND		29	Q.9	g38S 2			078168lCC7:52	Q.2CC
C,4-Des. iomobnt znt n	ND		29	1u0	g38S 2			078168lCC7:52	Q.2CC
Dichlorodi9uoromethane	**4J5**	**y**	21	Q.2	g38S 2			078168lCC7:52	Q.2CC
C,C-Des. iomona dt n	ND		17	0u55	g38S 2			078168lCC7:52	Q.2CC
C,1-Des. iomona dt n	ND		17	0u77	g38S 2			078168lCC7:52	Q.2CC
C,C-Des. iomona nt n	ND		16	0u9C	g38S 2			078168lCC7:52	Q.2CC
4,2-Dichloropropane	**1JT**	**y**	20	0uh4	g38S 2			078168lCC7:52	Q.2CC
C,C-Defigomona dt n	ND		Ch0	Q.2	g38S 2			078168lCC7:52	Q.2CC
DeePopmopyi na nm(Dlj v)	ND		17	Q.9	g38S 2			078168lCC7:52	Q.2CC
Ethanol	**66**	**y**	C10	6u2	g38S 2			078168lCC7:52	Q.2CC
EthFlben. ene	**4J7**	**y**	1h	Q.4	g38S 2			078168lCC7:52	Q.2CC
v a yi-abgayi na nm(v TBv)	ND		17	Q.6	g38S 2			078168lCC7:52	Q.2CC
4-v a yiaoignt n	ND		21	Q.6	g38S 2			078168lCC7:52	Q.2CC
Isopropanol	**T1**	**y**	C60	Q.2	g38S 2			078168lCC7:52	Q.2CC
MethFlene Chloride	**5J8**	**y B**	12	1u4	g38S 2			078168lCC7:52	Q.2CC
Mna yi anraabgayi na nm	ND		14	Q.6	g38S 2			078168lCC7:52	Q.2CC
m,p-XFlene	**5JA**	**y**	1h	2u6	g38S 2			078168lCC7:52	Q.2CC
Ndp. a dint n	ND		24	4uC	g38S 2			078168lCC7:52	Q.2CC
o-XFlene	**5J2**	**y**	1h	Q.C	g38S 2			078168lCC7:52	Q.2CC
c ayrnt n	ND		1h	2u0	g38S 2			078168lCC7:52	Q.2CC
anraAS yi Mna yi v a nm(TAMv)	ND		17	1u4	g38S 2			078168lCC7:52	Q.2CC
tert-ButFl alcohol (z Bx)	**TJA**	**y**	10	Q.5	g38S 2			078168lCC7:52	Q.2CC
C,C,1,1-Tnands. iomona dt n	ND		45	Q.5	g38S 2			078168lCC7:52	Q.2CC
zetrachloroethene	**8J8**	**y**	44	Q.5	g38S 2			078168lCC7:52	Q.2CC
zoluene	**22**	**y**	15	0u66	g38S 2			078168lCC7:52	Q.2CC
andt P-C,1-Des. iomona nt n	ND		16	0u66	g38S 2			078168lCC7:52	Q.2CC
andt P-C,2-Des. iomopropnt n	ND		20	Q.2	g38S 2			078168lCC7:52	Q.2CC
C,1,4-Tnes. iomobnt znt n	ND		49	6u4	g38S 2			078168lCC7:52	Q.2CC
C,C,C-Tnes. iomona dt n	ND		26	Q.0	g38S 2			078168lCC7:52	Q.2CC
C,C,1-Tnes. iomona dt n	ND		26	0u99	g38S 2			078168lCC7:52	Q.2CC
Tnes. iomona nt n	ND		25	Q.2	g38S 2			078168lCC7:52	Q.2CC
Tnes. iomofigomoS na dt n	ND		27	Q.7	g38S 2			078168lCC7:52	Q.2CC
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		50	2u0	g38S 2			078168lCC7:52	Q.2CC
C,1,4-TnaS na yibnt znt n	ND		21	1uC	g38S 2			078168lCC7:52	Q.2CC

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B47-5V
Date Collected: 07/2T/24 4T:08
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-TT
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		21	O.2	g38S 2			078168IC C7:52	O.2CC
Vet yi s. ionaEn	ND		C7	0.54	g38S 2			078168IC C7:52	O.2CC
XFlenes, zotal	**44**	**y**	1h	2.6	g38S 2			078168IC C7:52	O.2CC

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*		*07/26/21 17:53*	*1.311*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 131*		*07/26/21 17:53*	*1.311*
Toluene-d8 (Surr)	*106*		*70 - 130*		*07/26/21 17:53*	*1.311*

Client Sample ID: B47-45V
Date Collected: 07/2T/24 4T:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T1
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**2J7**	**y**	C6	0.50	g38S 2			078158IC 0h:1C	C
BroS oEes. ioroS na dt n	ND		24	0.74	g38S 2			078158IC 0h:1C	C
BroS oforS	ND		51	O.h	g38S 2			078158IC 0h:1C	C
BroS oS na dt n	ND		C9	0.54	g38S 2			078158IC 0h:1C	C
I drbot anards. ioraEn	ND		2C	O.2	g38S 2			078158IC 0h:1C	C
I . iorobnt znt n	ND		12	0.60	g38S 2			078158IC 0h:1C	C
I . iorona dt n	ND		C2	0.45	g38S 2			078158IC 0h:1C	C
I . ioroforS	ND		14	0.7h	g38S 2			078158IC 0h:1C	C
Chloromethane	**0J12**	**y**	C0	0.22	g38S 2			078158IC 0h:1C	C
seP-C,1-Des. iorona nt n	ND		10	0.54	g38S 2			078158IC 0h:1C	C
seP-C,2-Des. ioropropnt n	ND		12	0.9h	g38S 2			078158IC 0h:1C	C
DebroS os. ioroS na dt n	ND		42	O.2	g38S 2			078158IC 0h:1C	C
C,1-DebroS ona dt n	ND		2h	O.2	g38S 2			078158IC 0h:1C	C
C,1-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC 0h:1C	C
C,2-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC 0h:1C	C
C,4-Des. iorobnt znt n	ND		20	O.5	g38S 2			078158IC 0h:1C	C
DichlorodiSluoromethane	**4J5**	**y**	15	0.9h	g38S 2			078158IC 0h:1C	C
C,C-Des. iorona dt n	ND		10	0.41	g38S 2			078158IC 0h:1C	C
C,1-Des. iorona dt n	ND		10	0.59	g38S 2			078158IC 0h:1C	C
C,C-Des. iorona nt n	ND		10	0.69	g38S 2			078158IC 0h:1C	C
4,2-Dichloropropane	**5J7**	**y**	12	0.64	g38S 2			078158IC 0h:1C	C
4,4-DiSluoroethane	**4J4**	**y**	C40	0.99	g38S 2			078158IC 0h:1C	C
DeePopropyi na nr(DIj v)	ND		1C	O.5	g38S 2			078158IC 0h:1C	C
Ethanol	**17**	**y**	94	4.h	g38S 2			078158IC 0h:1C	C
EthFlben. ene	**2J4**	**y**	11	O.C	g38S 2			078158IC 0h:1C	C
v a yi-abgayi na nr(v TBv)	ND		1C	O.1	g38S 2			078158IC 0h:1C	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158IC 0h:1C	C
Isopropanol	**27**	**y**	C10	0.96	g38S 2			078158IC 0h:1C	C
MethFlene Chloride	**1J5**	**y B**	C7	O.9	g38S 2			078158IC 0h:1C	C
Mna yi anraabgayi na nm	ND		Ch	O.1	g38S 2			078158IC 0h:1C	C
m,p-XFlene	**7J1**	**y**	11	1.7	g38S 2			078158IC 0h:1C	C
Ndp. a dint n	ND		16	2.C	g38S 2			078158IC 0h:1C	C
o-XFlene	**TJ3**	**y**	11	0.h6	g38S 2			078158IC 0h:1C	C
c ayrnt n	ND		1C	1.2	g38S 2			078158IC 0h:1C	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	O.h	g38S 2			078158IC 0h:1C	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B47-45V
Date Collected: 07/2T/24 4T:48
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T1
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	TJ6	y	C5	OUC	g38S 2			078158IC0h:1C	C
C,C,1,1-Tnands. iomona dt n	ND		24	OUC	g38S 2			078158IC0h:1C	C
zetrachloroethene	8J7	y	24	OUC	g38S 2			078158IC0h:1C	C
zoluene	TT		C9	0u50	g38S 2			078158IC0h:1C	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158IC0h:1C	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158IC0h:1C	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078158IC0h:1C	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078158IC0h:1C	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078158IC0h:1C	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078158IC0h:1C	C
Tmes. iomofigomoS na dt n	ND		1h	OU2	g38S 2			078158IC0h:1C	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158IC0h:1C	C
C,1,4-TneS na yibnt znt n	ND		15	OU6	g38S 2			078158IC0h:1C	C
C,2,5-TneS na yibnt znt n	ND		15	OU0	g38S 2			078158IC0h:1C	C
Vet yi s. ionEn	ND		C2	0u4C	g38S 2			078158IC0h:1C	C
XFlenes, zotal	44	y	11	1u7	g38S 2			078158IC0h:1C	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*07/25/21 08:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 131*		*07/25/21 08:21*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/25/21 08:21*	*1*

Client Sample ID: B46-5V
Date Collected: 07/2T/24 4T:T0
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T5
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	TJT	y	C6	0u50	g38S 2			078158ICC1:C4	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078158ICC1:C4	C
BmoS oforS	ND		51	OUh	g38S 2			078158ICC1:C4	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078158ICC1:C4	C
I drbot anands. ionEn	ND		2C	OU2	g38S 2			078158ICC1:C4	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078158ICC1:C4	C
I . iomona dt n	ND		C2	0u45	g38S 2			078158ICC1:C4	C
I . iomoforS	ND		14	0u7h	g38S 2			078158ICC1:C4	C
Chloromethane	0J50	y	C0	0u22	g38S 2			078158ICC1:C4	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078158ICC1:C4	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078158ICC1:C4	C
DebmoS os. iomoS na dt n	ND		42	OU2	g38S 2			078158ICC1:C4	C
C,1-DebmoS ona dt n	ND		2h	OU2	g38S 2			078158ICC1:C4	C
C,1-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158ICC1:C4	C
C,2-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158ICC1:C4	C
C,4-Des. iomobnt znt n	ND		20	OU5	g38S 2			078158ICC1:C4	C
Dichlorodi9uoromethane	4JB	y	15	0u9h	g38S 2			078158ICC1:C4	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078158ICC1:C4	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078158ICC1:C4	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078158ICC1:C4	C
4,2-Dichloropropane	5JA	y	12	0u64	g38S 2			078158ICC1:C4	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078158ICC1:C4	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B46-5V
Date Collected: 07/2T/24 4T:T0
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T5
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078158lCC1:C4	C
Ethanol	**18**	**y**	94	4uh	g38S 2			078158lCC1:C4	C
EthFlben. ene	**2J7**	**y**	11	O.C	g38S 2			078158lCC1:C4	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078158lCC1:C4	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078158lCC1:C4	C
Isopropanol	**27**	**y**	C10	0u96	g38S 2			078158lCC1:C4	C
MethFlene Chloride	**5J0**	**y B**	C7	O.9	g38S 2			078158lCC1:C4	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078158lCC1:C4	C
m,p-XFlene	**7JT**	**y**	11	1u7	g38S 2			078158lCC1:C4	C
Ndp. a dint n	ND		16	2uC	g38S 2			078158lCC1:C4	C
o-XFlene	**5JT**	**y**	11	0uh6	g38S 2			078158lCC1:C4	C
c ayrnt n	ND		1C	1u2	g38S 2			078158lCC1:C4	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078158lCC1:C4	C
tert-ButFl alcohol (z Bx)	**5J4**	**y**	C5	O.C	g38S 2			078158lCC1:C4	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078158lCC1:C4	C
zetrachloroethene	**T2**	**y**	24	O.C	g38S 2			078158lCC1:C4	C
zoluene	**14**		C9	0u50	g38S 2			078158lCC1:C4	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078158lCC1:C4	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078158lCC1:C4	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078158lCC1:C4	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078158lCC1:C4	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078158lCC1:C4	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078158lCC1:C4	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078158lCC1:C4	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078158lCC1:C4	C
4,2,1-zrimethFlben. ene	**4J8**	**y**	15	O.6	g38S 2			078158lCC1:C4	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078158lCC1:C4	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078158lCC1:C4	C
XFlenes, zotal	**4T**	**y**	11	1u7	g38S 2			078158lCC1:C4	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*07/25/21 12:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/25/21 12:14*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/25/21 12:14*	*1*

Client Sample ID: B46-45V
Date Collected: 07/2T/24 4T:10
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T6
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**TJ8**	**y**	C6	0u50	g38S 2			078148lCC9:2h	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148lCC9:2h	C
BmoS oforS	ND		51	O.h	g38S 2			078148lCC9:2h	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148lCC9:2h	C
l drbot anands. iomaEn	ND		2C	O.2	g38S 2			078148lCC9:2h	C
l . iomobnt znt n	ND		12	0u60	g38S 2			078148lCC9:2h	C
l . iomona dt n	ND		C2	0u45	g38S 2			078148lCC9:2h	C
Chloro9orm	**8JT**	**y**	14	0u7h	g38S 2			078148lCC9:2h	C
l . iomoS na dt n	ND		C0	0u22	g38S 2			078148lCC9:2h	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B46-45V
Date Collected: 07/2T/24 4T:10
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T6
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148lCC9:2h	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148lCC9:2h	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148lCC9:2h	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148lCC9:2h	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCC9:2h	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCC9:2h	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148lCC9:2h	C
Dichlorodi9uoromethane	**2J6**	**y**	15	0u9h	g38S 2			078148lCC9:2h	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148lCC9:2h	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148lCC9:2h	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148lCC9:2h	C
4,2-Dichloropropane	**6JB**	**y**	12	0u64	g38S 2			078148lCC9:2h	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148lCC9:2h	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148lCC9:2h	C
Ethanol	**57**	**y**	94	4uh	g38S 2			078148lCC9:2h	C
EthFlben. ene	**2J7**	**y**	11	QuC	g38S 2			078148lCC9:2h	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148lCC9:2h	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148lCC9:2h	C
Isopropanol	**21**	**y**	C10	0u96	g38S 2			078148lCC9:2h	C
MethFlene Chloride	**TJ6**	**y B**	C7	Qu9	g38S 2			078148lCC9:2h	C
Mna yi anmabgayi na nm	ND		Ch	Qu1	g38S 2			078148lCC9:2h	C
m,p-XFlene	**8JB**	**y**	11	1u7	g38S 2			078148lCC9:2h	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148lCC9:2h	C
o-XFlene	**1JT**	**y**	11	0uh6	g38S 2			078148lCC9:2h	C
c ayrnt n	ND		1C	1u2	g38S 2			078148lCC9:2h	C
anmaAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148lCC9:2h	C
tert-ButFl alcohol (z Bx)	**5J1**	**y**	C5	QuC	g38S 2			078148lCC9:2h	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148lCC9:2h	C
zetrachloroethene	**4A**	**y**	24	QuC	g38S 2			078148lCC9:2h	C
zoluene	**16**		C9	0u50	g38S 2			078148lCC9:2h	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148lCC9:2h	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148lCC9:2h	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148lCC9:2h	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148lCC9:2h	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148lCC9:2h	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148lCC9:2h	C
Tmes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148lCC9:2h	C
C,C,1-Tmes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148lCC9:2h	C
4,2,1-zrimethFlben. ene	**4JB**	**y**	15	Qu6	g38S 2			078148lCC9:2h	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148lCC9:2h	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148lCC9:2h	C
XFlenes, zotal	**4T**	**y**	11	1u7	g38S 2			078148lCC9:2h	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*07/24/21 19:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/24/21 19:38*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*07/24/21 19:38*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B44-5V
Date Collected: 07/2T/24 4T:57
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T7
Matri3: x ir

x nalFte	Result	f ualiger	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**6JT**	**y**	C6	0u50	g38S 2			078148IC 10:15	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 10:15	C
BmoS oforS	ND		51	Quh	g38S 2			078148IC 10:15	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 10:15	C
I dmbot anands. ionsEn	ND		2C	Qu2	g38S 2			078148IC 10:15	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 10:15	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 10:15	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 10:15	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 10:15	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 10:15	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 10:15	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 10:15	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 10:15	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:15	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:15	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 10:15	C
Dichlorodi9uoromethane	**2J5**	**y**	15	0u9h	g38S 2			078148IC 10:15	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 10:15	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 10:15	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 10:15	C
4,2-Dichloropropane	**7JI**	**y**	12	0u64	g38S 2			078148IC 10:15	C
C,C-DefigomoS na dt n	ND		C40	0u99	g38S 2			078148IC 10:15	C
DeePopmopyi na nm(DIj v)	ND		1C	Qu5	g38S 2			078148IC 10:15	C
Ethanol	**5A**	**y**	94	4uh	g38S 2			078148IC 10:15	C
EthFlben. ene	**1J6**	**y**	11	QuC	g38S 2			078148IC 10:15	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 10:15	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 10:15	C
Isopropanol	**T1**	**y**	C10	0u96	g38S 2			078148IC 10:15	C
MethFlene Chloride	**TJ8**	**y B**	C7	Qu9	g38S 2			078148IC 10:15	C
Mna yi anraabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 10:15	C
m,p-XFlene	**4T**	**y**	11	1u7	g38S 2			078148IC 10:15	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 10:15	C
o-Xyint n	ND		11	0uh6	g38S 2			078148IC 10:15	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 10:15	C
anraAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 10:15	C
tert-ButFl alcohol (z Bx)	**6J4**	**y**	C5	QuC	g38S 2			078148IC 10:15	C
C,C,1,1-Tnands. ionona dt n	ND		24	QuC	g38S 2			078148IC 10:15	C
zetrachloroethene	**TA**		24	QuC	g38S 2			078148IC 10:15	C
zoluene	**18**		C9	0u50	g38S 2			078148IC 10:15	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 10:15	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 10:15	C
C,1,4-Tnes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 10:15	C
C,C,C-Tnes. ionona dt n	ND		17	0u79	g38S 2			078148IC 10:15	C
C,C,1-Tnes. ionona dt n	ND		17	0u76	g38S 2			078148IC 10:15	C
Tnes. ionona nt n	ND		17	0u96	g38S 2			078148IC 10:15	C
Tnes. iomofigomoS na dt n	ND		1h	Qu2	g38S 2			078148IC 10:15	C
C,C,1-Tnes. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 10:15	C
4,2,1-zrimethFlben. ene	**TJ4**	**y**	15	Qu6	g38S 2			078148IC 10:15	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B44-5V
Date Collected: 07/2T/24 4T:57
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T7
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
C,2,5-TnaS na yibnt znt n	ND		15	O0	g38S 2			078148IC 10:15	C
Vet yi s. ionaEn	ND		C2	0u4C	g38S 2			078148IC 10:15	C
XFlenes, zotal	**4T**	**y**	11	1u7	g38S 2			078148IC 10:15	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*0*	*S1-*	*70 - 130*		*07/24/21 20:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 20:25*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/24/21 20:25*	*1*

Client Sample ID: B44-45V
Date Collected: 07/2T/24 41:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T8
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Ben. ene	**5J2**	**y**	O6	0u50	g38S 2			078148IC 1C:1h	C
BroS oEes. ioroS na dt n	ND		24	0u74	g38S 2			078148IC 1C:1h	C
BroS oforS	ND		51	Ouh	g38S 2			078148IC 1C:1h	C
BroS oS na dt n	ND		C9	0u54	g38S 2			078148IC 1C:1h	C
I drbot anards. ioraEn	ND		2C	Ou2	g38S 2			078148IC 1C:1h	C
I . iorobnt znt n	ND		12	0u60	g38S 2			078148IC 1C:1h	C
I . iorona dt n	ND		C2	0u45	g38S 2			078148IC 1C:1h	C
I . ioroforS	ND		14	0u7h	g38S 2			078148IC 1C:1h	C
I . ioroS na dt n	ND		C0	0u22	g38S 2			078148IC 1C:1h	C
seP-C,1-Des. iorona nt n	ND		10	0u54	g38S 2			078148IC 1C:1h	C
seP-C,2-Des. ioropropnt n	ND		12	0u9h	g38S 2			078148IC 1C:1h	C
DebroS os. ioroS na dt n	ND		42	Ou2	g38S 2			078148IC 1C:1h	C
C,1-DebroS ona dt n	ND		2h	Ou2	g38S 2			078148IC 1C:1h	C
C,1-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:1h	C
C,2-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:1h	C
C,4-Des. iorobnt znt n	ND		20	Ou5	g38S 2			078148IC 1C:1h	C
Dichlorodi9uoromethane	**2J7**	**y**	15	0u9h	g38S 2			078148IC 1C:1h	C
C,C-Des. iorona dt n	ND		10	0u41	g38S 2			078148IC 1C:1h	C
C,1-Des. iorona dt n	ND		10	0u59	g38S 2			078148IC 1C:1h	C
C,C-Des. iorona nt n	ND		10	0u69	g38S 2			078148IC 1C:1h	C
4,2-Dichloropropane	**6J6**	**y**	12	0u64	g38S 2			078148IC 1C:1h	C
C,C-DefigoroS na dt n	ND		C40	0u99	g38S 2			078148IC 1C:1h	C
DeeP-opropyi na nr(Dlj v)	ND		1C	Ou5	g38S 2			078148IC 1C:1h	C
Ethanol	**5T**	**y**	94	4uh	g38S 2			078148IC 1C:1h	C
EthFlben. ene	**TJ0**	**y**	11	OuC	g38S 2			078148IC 1C:1h	C
v a yi-abgayi na nr(v TBv)	ND		1C	Ou1	g38S 2			078148IC 1C:1h	C
4-v a yiaoignt n	ND		15	Ou1	g38S 2			078148IC 1C:1h	C
Isopropanol	**28**	**y**	C10	0u96	g38S 2			078148IC 1C:1h	C
MethFlene Chloride	**TJ2**	**y B**	C7	O9	g38S 2			078148IC 1C:1h	C
Mna yi anraabgayi na nm	ND		Ch	Ou1	g38S 2			078148IC 1C:1h	C
m,p-XFlene	**AJ8**	**y**	11	1u7	g38S 2			078148IC 1C:1h	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 1C:1h	C
o-XFlene	**1JT**	**y**	11	0uh6	g38S 2			078148IC 1C:1h	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 1C:1h	C
anraAS yi Mna yi v a nr(TAMv)	ND		1C	Ouh	g38S 2			078148IC 1C:1h	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B44-45V
Date Collected: 07/2T/24 41:40
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-T8
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
tert-ButFl alcohol (zBx)	**5J0**	**y**	C5	O.C	g38S 2			078148IC 1C:1h	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148IC 1C:1h	C
zetrachloroethene	**41**	**y**	24	O.C	g38S 2			078148IC 1C:1h	C
zoluene	**T6**		C9	0u50	g38S 2			078148IC 1C:1h	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 1C:1h	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 1C:1h	C
C,1,4-Tmas. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 1C:1h	C
C,C,C-Tmas. iomona dt n	ND		17	0u79	g38S 2			078148IC 1C:1h	C
C,C,1-Tmas. iomona dt n	ND		17	0u76	g38S 2			078148IC 1C:1h	C
Tmas. iomona nt n	ND		17	0u96	g38S 2			078148IC 1C:1h	C
Tmas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148IC 1C:1h	C
C,C,1-Tmas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 1C:1h	C
C,1,4-TmaS na yibnt znt n	ND		15	O.6	g38S 2			078148IC 1C:1h	C
C,2,5-TmaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 1C:1h	C
Vet yi s. ionaEn	ND		C2	0u4C	g38S 2			078148IC 1C:1h	C
XFlenes, zotal	**41**	**y**	11	1u7	g38S 2			078148IC 1C:1h	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*07/24/21 21:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/24/21 21:28*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*07/24/21 21:28*	*1*

Client Sample ID: B42-5V
Date Collected: 07/2T/24 41:24
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-TA
Matri3: x ir

x nalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Bnt znt n	ND		O6	0u50	g38S 2			078148IC 11:O6	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 11:O6	C
BmoS oforS	ND		51	O.h	g38S 2			078148IC 11:O6	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 11:O6	C
I drbot anands. ionaEn	ND		2C	O.2	g38S 2			078148IC 11:O6	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 11:O6	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 11:O6	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 11:O6	C
I . iomoS na dt n	ND		C0	0u22	g38S 2			078148IC 11:O6	C
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 11:O6	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 11:O6	C
DebmoS os. iomoS na dt n	ND		42	O.2	g38S 2			078148IC 11:O6	C
C,1-DebmoS ona dt n	ND		2h	O.2	g38S 2			078148IC 11:O6	C
C,1-Des. iomobnt znt n	ND		20	O.5	g38S 2			078148IC 11:O6	C
C,2-Des. iomobnt znt n	ND		20	O.5	g38S 2			078148IC 11:O6	C
C,4-Des. iomobnt znt n	ND		20	O.5	g38S 2			078148IC 11:O6	C
Dichlorodi9uoromethane	**2J6**	**y**	15	0u9h	g38S 2			078148IC 11:O6	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 11:O6	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 11:O6	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 11:O6	C
4,2-Dichloropropane	**6J6**	**y**	12	0u64	g38S 2			078148IC 11:O6	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 11:O6	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B42-5V
Date Collected: 07/2T/24 41:24
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-TA
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
DeePopropyi na nm(Dlj v)	ND		1C	O.5	g38S 2			078148IC 11:O6	C
Ethanol	**11**	**y**	94	4uh	g38S 2			078148IC 11:O6	C
EthFlben. ene	**4.J5**	**y**	11	O.C	g38S 2			078148IC 11:O6	C
v a yi-abgayi na nm(v TBv)	ND		1C	O.1	g38S 2			078148IC 11:O6	C
4-v a yiaoignt n	ND		15	O.1	g38S 2			078148IC 11:O6	C
Isopropanol	**28**	**y**	C10	0u96	g38S 2			078148IC 11:O6	C
MethFlene Chloride	**1.J8**	**y B**	C7	O.9	g38S 2			078148IC 11:O6	C
Mna yi anna-abgayi na nm	ND		Ch	O.1	g38S 2			078148IC 11:O6	C
m,p-XFlene	**1.J6**	**y**	11	1u7	g38S 2			078148IC 11:O6	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 11:O6	C
o-XFlene	**2.JT**	**y**	11	0uh6	g38S 2			078148IC 11:O6	C
c ayrnt n	ND		1C	1u2	g38S 2			078148IC 11:O6	C
anna-AS yi Mna yi v a nm(TAMv)	ND		1C	O.h	g38S 2			078148IC 11:O6	C
tert-ButFl alcohol (z Bx)	**5.J2**	**y**	C5	O.C	g38S 2			078148IC 11:O6	C
C,C,1,1-Tnands. iomona dt n	ND		24	O.C	g38S 2			078148IC 11:O6	C
zetrachloroethene	**2.JA**	**y**	24	O.C	g38S 2			078148IC 11:O6	C
zoluene	**T5**		C9	0u50	g38S 2			078148IC 11:O6	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 11:O6	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 11:O6	C
C,1,4-Tnas. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 11:O6	C
C,C,C-Tnas. iomona dt n	ND		17	0u79	g38S 2			078148IC 11:O6	C
C,C,1-Tnas. iomona dt n	ND		17	0u76	g38S 2			078148IC 11:O6	C
Tnas. iomona nt n	ND		17	0u96	g38S 2			078148IC 11:O6	C
Tnas. iomofigomoS na dt n	ND		1h	O.2	g38S 2			078148IC 11:O6	C
C,C,1-Tnas. iomo-C,1,1-anfigomona dt n	ND		2h	1u2	g38S 2			078148IC 11:O6	C
C,1,4-TnaS na yibnt znt n	ND		15	O.6	g38S 2			078148IC 11:O6	C
C,2,5-TnaS na yibnt znt n	ND		15	O.0	g38S 2			078148IC 11:O6	C
Ve yi s. iomaEn	ND		C2	0u4C	g38S 2			078148IC 11:O6	C
XFlenes, zotal	**6.JA**	**y**	11	1u7	g38S 2			078148IC 11:O6	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*07/24/21 22:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*		*07/24/21 22:16*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/24/21 22:16*	*1*

Client Sample ID: B42-45V
Date Collected: 07/2T/24 41:T4
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-10
Matri3: x ir

x nalFte	Result	f uali9er	RL	MDL	Qnit	D	Urepared	x nalF. ed	Dil Pac
Bnt znt n	ND		C6	0u50	g38S 2			078148IC 12:04	C
BmoS oEes. iomoS na dt n	ND		24	0u74	g38S 2			078148IC 12:04	C
BmoS oforS	ND		51	O.h	g38S 2			078148IC 12:04	C
BmoS oS na dt n	ND		C9	0u54	g38S 2			078148IC 12:04	C
I drbot anands. iomaEn	ND		2C	O.2	g38S 2			078148IC 12:04	C
I . iomobnt znt n	ND		12	0u60	g38S 2			078148IC 12:04	C
I . iomona dt n	ND		C2	0u45	g38S 2			078148IC 12:04	C
I . iomoforS	ND		14	0u7h	g38S 2			078148IC 12:04	C
Chloromethane	**0.J5T**	**y**	C0	0u22	g38S 2			078148IC 12:04	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B42-45V
Date Collected: 07/2T/24 41:T4
Date Received: 07/2T/24 48:05
Sample Container: zedlar Bag 4L

Lab Sample ID: 570-65215-10
Matri3: x ir

xnalFte	Result	f ualiSer	RL	MDL	Qnit	D	Urepared	xnalF. ed	Dil Pac
seP-C,1-Des. iomona nt n	ND		10	0u54	g38S 2			078148IC 12:04	C
seP-C,2-Des. iomopropnt n	ND		12	0u9h	g38S 2			078148IC 12:04	C
DebmoS os. iomoS na dt n	ND		42	Qu2	g38S 2			078148IC 12:04	C
C,1-DebmoS ona dt n	ND		2h	Qu2	g38S 2			078148IC 12:04	C
C,1-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:04	C
C,2-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:04	C
C,4-Des. iomobnt znt n	ND		20	Qu5	g38S 2			078148IC 12:04	C
Dichlorodi9uoromethane	**2J6**	**y**	15	0u9h	g38S 2			078148IC 12:04	C
C,C-Des. iomona dt n	ND		10	0u41	g38S 2			078148IC 12:04	C
C,1-Des. iomona dt n	ND		10	0u59	g38S 2			078148IC 12:04	C
C,C-Des. iomona nt n	ND		10	0u69	g38S 2			078148IC 12:04	C
4,2-Dichloropropane	**7J6**	**y**	12	0u64	g38S 2			078148IC 12:04	C
C,C-Defigomona dt n	ND		C40	0u99	g38S 2			078148IC 12:04	C
DeePopmopyi na nm(Dlj v)	ND		1C	Qu5	g38S 2			078148IC 12:04	C
Ethanol	**6A**	**y**	94	4uh	g38S 2			078148IC 12:04	C
EthFlben. ene	**5J1**	**y**	11	QuC	g38S 2			078148IC 12:04	C
v a yi-abgayi na nm(v TBv)	ND		1C	Qu1	g38S 2			078148IC 12:04	C
4-v a yiaoignt n	ND		15	Qu1	g38S 2			078148IC 12:04	C
Isopropanol	**T2**	**y**	C10	0u96	g38S 2			078148IC 12:04	C
MethFlene Chloride	**5J1**	**y B**	C7	Qu9	g38S 2			078148IC 12:04	C
Mna yi anmabgayi na nm	ND		Ch	Qu1	g38S 2			078148IC 12:04	C
m,p-XFlene	**45**	**y**	11	1u7	g38S 2			078148IC 12:04	C
Ndp. a dint n	ND		16	2uC	g38S 2			078148IC 12:04	C
o-XFlene	**AJA**	**y**	11	0uh6	g38S 2			078148IC 12:04	C
c aymt n	ND		1C	1u2	g38S 2			078148IC 12:04	C
anmaAS yi Mna yi v a nm(TAMv)	ND		1C	Quh	g38S 2			078148IC 12:04	C
tert-ButFl alcohol (zBx)	**5J6**	**y**	C5	QuC	g38S 2			078148IC 12:04	C
C,C,1,1-Tnands. iomona dt n	ND		24	QuC	g38S 2			078148IC 12:04	C
zetrachloroethene	**2J2**	**y**	24	QuC	g38S 2			078148IC 12:04	C
zoluene	**T8**		C9	0u50	g38S 2			078148IC 12:04	C
andt P-C,1-Des. iomona nt n	ND		10	0u50	g38S 2			078148IC 12:04	C
andt P-C,2-Des. iomopropnt n	ND		12	0u96	g38S 2			078148IC 12:04	C
C,1,4-Tmes. iomobnt znt n	ND		27	4u9	g38S 2			078148IC 12:04	C
C,C,C-Tmes. iomona dt n	ND		17	0u79	g38S 2			078148IC 12:04	C
C,C,1-Tmes. iomona dt n	ND		17	0u76	g38S 2			078148IC 12:04	C
Tmes. iomona nt n	ND		17	0u96	g38S 2			078148IC 12:04	C
zrichloro9uoromethane	**4JT**	**y**	1h	Qu2	g38S 2			078148IC 12:04	C
C,C,1-Tmes. iomo-C,1,1-afigomona dt n	ND		2h	1u2	g38S 2			078148IC 12:04	C
4,2,1-zrimethFlben. ene	**4JA**	**y**	15	Qu6	g38S 2			078148IC 12:04	C
C,2,5-TmeS na yibnt znt n	ND		15	Qu0	g38S 2			078148IC 12:04	C
Ve yi s. iomeEn	ND		C2	0u4C	g38S 2			078148IC 12:04	C
XFlenes, zotal	**25**		11	1u7	g38S 2			078148IC 12:04	C

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*07/24/21 23:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 131*		*07/24/21 23:04*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/24/21 23:04*	*1*

Surrogate Summary

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (70-130)	DCA (70-131)	TOL (70-130)					
570-65145-C	VC5-52	CC0	C0C	3h					
570-65145-1	VC5-C52	33	C0C	3h					
570-65145-9	VC3-52	C01	C0C	33					
570-65145-4	VC3-C52	C09	C0C	3h					
570-65145-5	VC-52	C06	C01	33					
570-65145-6	VC-C52	C06	C00	33					
570-65145-7	V1-52	113 cC+	C0C	36					
570-65145-h	V1-C52	CC9	C01	C00					
570-65145-3	V4-52	C0h	C0C	C01					
570-65145-C0	V4-C52	C01	3h	C01					
570-65145-CC	V7-52	C01	CC7	C01					
570-65145-C1	V7-C52	C0C	3h	C00					
570-65145-C9	Vh-52	C04	37	C01					
570-65145-C4	Vh-C52	C09	3h	C01					
570-65145-C5	VC0-52	C07	C00	C0C					
570-65145-C6	VC0-C52	C01	37	C09					
570-65145-C7	V3-52	C09	3h	C09					
570-65145-Ch	V3-C52	C0C	33	C01					
570-65145-C3	V6-52	C03	CC4	C05					
570-65145-10	V6-C52	C03	CC9	C04					
570-65145-1C	V5-52	CC0	CC9	C09					
570-65145-11	V5-C52	C07	CC9	C09					
570-65145-19	V15-52	C09	C04	C01					
570-65145-14	V15-C52	C0h	CC4	C04					
570-65145-15	V16-52	CC0	CC9	C04					
570-65145-16	V16-C52	C0h	CC4	C09					
570-65145-17	V17-52	C03	CC4	C04					
570-65145-1h	V17-C52	C0h	CC4	C05					
570-65145-13	V14-52	C0h	CC4	C04					
570-65145-90	V14-C52	C0h	CC4	C09					
570-65145-9C	VCh-52	C10	CC5	C04					
570-65145-91	VCh-C52	C0h	CC1	C09					
570-65145-99	VC7-52	C1C	CC6	C06					
570-65145-94	VC7-C52	C0h	C06	C0C					
570-65145-95	VC6-52	CCh	C01	C0C					
570-65145-96	VC6-C52	CCC	C01	C04					
570-65145-97	VCC-52	0 cC-	C0C	C09					
570-65145-9h	VCC-C52	C03	C01	C05					
570-65145-93	VC1-52	C07	C01	C09					
570-65145-40	VC1-C52	C06	C00	C01					
LI c 570-C6699789	Ldb I ot amoi c dS pin	33	3h	C00					
LI c 570-C6699384	Ldb I ot amoi c dS pin	37	33	C09					
LI c 570-C6697184	Ldb I ot amoi c dS pin	C09	C03	C04					
LI c 570-C6697489	Ldb I ot amoi c dS pin	C04	CCC	C05					
LI c 570-C6697789	Ldb I ot amoi c dS pin	3h	C01	C00					
LI c 570-C6657C84	Ldb I ot amoi c dS pin	3h	33	C0C					
LI c D 570-C6699784	Ldb I ot amoi c dS pin Dup	C00	3h	C00					
LI c D 570-C6699385	Ldb I ot amoi c dS pin Dup	3h	3h	C0C					
LI c D 570-C6697185	Ldb I ot amoi c dS pin Dup	C09	C03	C09					

Surrogate Summary

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**BFB (70-130)**	**DCA (70-131)**	**TOL (70-130)**					
LI cD 570-C669748 4	Ldb I ot amoi c dS pin Dup	C04	CCC	C06					
LI cD 570-C669778 4	Ldb I ot amoi c dS pin Dup	3h	33	33					
LI cD 570-C6657C8 5	Ldb I ot amoi c dS pin Dup	37	33	C00					
k V 570-C669978 7	k naBoE Vidt F	34	C0C	36					
k V 570-C669938 7	k naBoE Vidt F	C0C	C09	C0C					
k V 570-C669718 7	k naBoE Vidt F	C09	CCC	C09					
k V 570-C669748 6	k naBoE Vidt F	C06	CC6	C05					
k V 570-C669778 6	k naBoE Vidt F	C00	C04	C0C					
k V 570-C6657C8 7	k naBoE Vidt F	C00	C0C	C01					

Surrogate Legend

V=V f 4-VmoS oMuomobnt znt n (cum)
DI A f C,1-DesBiomonaBdt n-E4 (cum)
TOL f Toiunt n-Eh (cum)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-166337/7
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078148lCC4:5C	C
z mo S oEesBiomoS naBdt n	. D		24	0u74	g38S 2			078148lCC4:5C	C
z mo S o9bn6	. D		51	Quh	g38S 2			078148lCC4:5C	C
z mo S oS naBdt n	. D		Cf	0u54	g38S 2			078148lCC4:5C	C
l dnbot anandsBiomaEn	. D		2C	Qu2	g38S 2			078148lCC4:5C	C
l Biomobnt Nht n	. D		12	0u60	g38S 2			078148lCC4:5C	C
l BiomonaBdt n	. D		C2	0u45	g38S 2			078148lCC4:5C	C
l Biomo9bn6	. D		14	0u7h	g38S 2			078148lCC4:5C	C
l BiomoS naBdt n	. D		C0	0u22	g38S 2			078148lCC4:5C	C
se-P-C,1-DesBiomonaBnt n	. D		10	0u54	g38S 2			078148lCC4:5C	C
se-P-C,2-DesBiomopropnt n	. D		12	0uf h	g38S 2			078148lCC4:5C	C
DebomoS osBiomoS naBdt n	. D		42	Qu2	g38S 2			078148lCC4:5C	C
C,1-DebomoS onaBdt n	. D		2h	Qu2	g38S 2			078148lCC4:5C	C
C,1-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC4:5C	C
C,2-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC4:5C	C
C,4-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC4:5C	C
DesBiomoEe9gomoS naBdt n	. D		15	0uf h	g38S 2			078148lCC4:5C	C
C,C-DesBiomonaBdt n	. D		10	0u41	g38S 2			078148lCC4:5C	C
C,1-DesBiomonaBdt n	. D		10	0u5f	g38S 2			078148lCC4:5C	C
C,C-DesBiomonaBnt n	. D		10	0u6f	g38S 2			078148lCC4:5C	C
C,1-DesBiomopropdt n	. D		12	0u64	g38S 2			078148lCC4:5C	C
C,C-De9gomonaBdt n	. D		C40	0uf f	g38S 2			078148lCC4:5C	C
Dee-Popropyi naBnm(Dlj v)	. D		1C	Qu5	g38S 2			078148lCC4:5C	C
v aBdt oi	. D		f 4	4uh	g38S 2			078148lCC4:5C	C
v aByibnt Nht n	. D		11	QuC	g38S 2			078148lCC4:5C	C
v aByi-abgayi naBnm(v Tz v)	. D		1C	Qu1	g38S 2			078148lCC4:5C	C
4-v aByiaoignt n	. D		15	Qu1	g38S 2			078148lCC4:5C	C
lPopropdt oi	. D		C10	0uf 6	g38S 2			078148lCC4:5C	C
MnaByint n l BiomaEn	4u70h	J	C7	Quf	g38S 2			078148lCC4:5C	C
MnaByi anna-abgayi naBnm	. D		Ch	Qu1	g38S 2			078148lCC4:5C	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078148lCC4:5C	C
. dpBaBdint n	. D		16	2uC	g38S 2			078148lCC4:5C	C
o-Xyint n	. D		11	0uh6	g38S 2			078148lCC4:5C	C
c ayrnt n	. D		1C	1u2	g38S 2			078148lCC4:5C	C
anna-AS yi MnaByi v aBnm(TAMv)	. D		1C	Quh	g38S 2			078148lCC4:5C	C
anna-z gayi disoBoi (Tz A)	. D		C5	QuC	g38S 2			078148lCC4:5C	C
C,C,1,1-TnandsBiomonaBdt n	. D		24	QuC	g38S 2			078148lCC4:5C	C
TnandsBiomonaBnt n	. D		24	QuC	g38S 2			078148lCC4:5C	C
Toignt n	. D		Cf	0u50	g38S 2			078148lCC4:5C	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078148lCC4:5C	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078148lCC4:5C	C
C,1,4-TnasBiomobnt Nht n	. D		27	4uf	g38S 2			078148lCC4:5C	C
C,C,C-TnasBiomonaBdt n	. D		17	0u7f	g38S 2			078148lCC4:5C	C
C,C,1-TnasBiomonaBdt n	. D		17	0u76	g38S 2			078148lCC4:5C	C
TnasBiomonaBnt n	. D		17	0uf 6	g38S 2			078148lCC4:5C	C
TnasBiomo9gomoS naBdt n	. D		1h	Qu2	g38S 2			078148lCC4:5C	C
C,C,1-TnasBiomo-C,1,1-ane9gomonaBdt n	. D		2h	1u2	g38S 2			078148lCC4:5C	C
C,1,4-TnaS naByibnt Nht n	. D		15	Qu6	g38S 2			078148lCC4:5C	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166337/7
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C,2,5-Tms Sna Byibnt Nht n	. D		15	CU0	g38S 2			078l48l CC4:5C	C
Vet yi sBiomaEn	. D		C2	0u4C	g38S 2			078l48l CC4:5C	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078l48l CC4:5C	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*07/24/21 14:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/24/21 14:51*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*07/24/21 14:51*	*1*

Lab Sample ID: LCS 570-166337/3
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
z nt Nht n	7f uf	hCU07		g38S 2		C01	6h - C24
z moS oEasBiomoS naBdt n	C6h	C6hu4		g38S 2		C0C	6f - C21
z moS o9bn6	15h	161u4		g38S 2		C01	70 - C20
z moS oS naBdt n	f 7uC	f 7u26		g38S 2		C00	65 - C20
l drbot anandsBiomaEn	C57	C56u4		g38S 2		f f	6h - C22
l Biomobnt Nht n	CC5	CC4u0		g38S 2		f f	70 - C20
l BiomonaBdt n	66u0	6hu50		g38S 2		C04	66 - C24
l Biomo9bn6	C11	C14u7		g38S 2		C01	67 - C2C
l BiomoS naBdt n	5CU6	5CU00		g38S 2		f f	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	C0huC		g38S 2		C0f	70 - C20
seP-C,2-DesBiomopmopnt n	CC2	C12u6		g38S 2		C0f	70 - C24
DebmoS osBiomoS naBdt n	1C2	107ul		g38S 2		f 7	70 - C20
C,1-DebmoS onaBdt n	Cf 1	100u2		g38S 2		C04	70 - C20
C,1-DesBiomobnt Nht n	C50	C6huh		g38S 2		CC1	6h - C20
C,2-DesBiomobnt Nht n	C50	C74u5		g38S 2		CC6	65 - C20
C,4-DesBiomobnt Nht n	C50	Ch5u5		g38S 2		C12	64 - C20
DesBiomoEa9gomoS naBdt n	C14	C20u4		g38S 2		C06	57 - C2h
C,C-DesBiomonaBdt n	C0C	C05ul		g38S 2		C04	6f - C20
C,1-DesBiomonaBdt n	C0C	C0f u0		g38S 2		C0h	65 - C26
C,C-DesBiomonaBnt n	f f uC	C02u2		g38S 2		C04	64 - C25
C,1-DesBiompmopdt n	CC6	CChu2		g38S 2		C01	6h - C21
C,C-Da9gomonaBdt n	67u5	74u7h	J	g38S 2		CCC	57 - C46
DeePopmopyi naBnm(Dlj v)	C04	CC1u5		g38S 2		C0h	5h - C44
v aBdt oi	Chh	Ch5u4		g38S 2		f h	6C - C22
v aByibnt Nht n	C0f	C0hul		g38S 2		C00	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	CC0uC		g38S 2		C05	67 - C20
4-v aByiaoignt n	C12	C1hu7		g38S 2		C05	6f - C20
MnaByint n l BiomaEn	h6uh	hCUC7		g38S 2		f 2	65 - C20
MnaByi anmabgayi naBnm	f 0uC	f 1u00		g38S 2		C01	70 - C20
S ,p-Xyint n	1C7	105u6		g38S 2		f 5	70 - C20
. dpBaBdint n	C2C	C6hu0		g38S 2		C1h	26 - C46
o-Xyint n	C0f	C01u0		g38S 2		f 4	6h - C20
cayrnt n	C06	C0f uf		g38S 2		C02	70 - C20
anmaAS yi MnaByi v aBnm(TAMv)	C04	C04uC		g38S 2		C00	70 - C20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166337/3
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
anmazgayi disoBoi (TzA)	C51	C5f u7		g38S2		C05	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	C72uC		g38S2		C0C	70 - C20
TnandsBiomonaBnt n	C70	C60uh		g38S2		f5	70 - C20
Toignt n	f4ul	f Quh1		g38S2		f7	70 - C20
andt P-C,1-DesBiomonaBnt n	ffuC	C04uh		g38S2		C06	70 - C20
andt P-C,2-DesBiomopropnt n	CC2	C1fu4		g38S2		CC4	66 - C41
C,1,4-TnasBiomobnt Nht n	Ch6	142u6		g38S2		C2C	5C - C24
C,C,C-TnasBiomonaBdt n	C26	C41u6		g38S2		C05	67 - C25
C,C,1-TnasBiomonaBdt n	C26	C41uf		g38S2		C05	6f - C2C
TnasBiomonaBnt n	C24	C24u2		g38S2		C00	6f - C20
TnasBiomo9gomoSnaBdt n	C40	C24u0		g38S2		f5	61 - C2f
C,C,1-TnasBiomo-C,1,1-an9gomonaBdt n	Cf1	Cfhul		g38S2		C02	70 - C20
C,1,4-TnaSnaByibnt Nht n	C12	C11u7		g38S2		C00	6h - C20
C,2,5-TnaSnaByibnt Nht n	C12	C10uf		g38S2		fh	6f - C20
Vetyi sBiomaEn	62uf	64u7C		g38S2		C0C	65 - C20

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 570-166337/4
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
znt Nht n	7fuf	h0uf5		g38S2		C0C	6h - C24	0	15
zmoSoEesBiomoSnaBdt n	C6h	C6hul		g38S2		C00	6f - C21	0	15
zmoSo9bnS	15h	165u6		g38S2		C02	70 - C20	C	15
zmoSoSnaBdt n	f7uC	f6ulC		g38S2		ff	65 - C20	C	15
l drnbot anandsBiomaEn	C57	C56uC		g38S2		ff	6h - C22	0	15
l Biomobnt Nht n	CC5	CC6u5		g38S2		C0C	70 - C20	1	15
l BiomonaBdt n	66u0	67u45		g38S2		C01	66 - C24	1	15
l Biomo9bnS	C11	C14u7		g38S2		C01	67 - C2C	0	15
l BiomoSnaBdt n	5Qu6	5Qu60		g38S2		C00	60 - C27	C	15
seP-C,1-DesBiomonaBnt n	ffuC	C0hul		g38S2		C0f	70 - C20	0	15
seP-C,2-DesBiomopropnt n	CC2	C11u0		g38S2		C0h	70 - C24	C	15
DebmoSosBiomoSnaBdt n	1C2	10fuC		g38S2		fh	70 - C20	C	15
C,1-DebmoSonaBdt n	Cf1	102u5		g38S2		C06	70 - C20	1	15
C,1-DesBiomobnt Nht n	C50	C70u2		g38S2		CC2	6h - C20	C	15
C,2-DesBiomobnt Nht n	C50	C76u0		g38S2		CC7	65 - C20	C	15
C,4-DesBiomobnt Nht n	C50	Ch7u7		g38S2		C15	64 - C20	C	15
DesBiomoEe9gomoSnaBdt n	C14	C16u6		g38S2		C01	57 - C2h	2	15
C,C-DesBiomonaBdt n	C0C	C06u6		g38S2		C05	6f - C20	C	15
C,1-DesBiomonaBdt n	C0C	C0hu2		g38S2		C07	65 - C26	C	15
C,C-DesBiomonaBnt n	ffuC	C04uC		g38S2		C05	64 - C25	C	15
C,1-DesBiomopropdt n	CC6	CC6u7		g38S2		C0C	6h - C21	C	15
C,C-De9gomonaBdt n	67u5	70uh2	J	g38S2		C05	57 - C46	5	15

vgmo9t PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166337/4
Matrix: Air
Analysis Batch: 166337

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DeePopmopyi naBnm(Dlj v)			C04	CC0u7		g38S 2		C06	5h - C44	1	15
v aBdt oi			Chh	Ch2u5		g38S 2		f 7	6C - C22	C	15
v aByibnt Nht n			C0f	C0f uh		g38S 2		C0C	70 - C20	1	15
v aByi-abgayi naBnm(v Tz v)			C04	CC0u0		g38S 2		C05	67 - C20	0	15
4-v aByiaoignt n			C12	C20u5		g38S 2		C06	6f - C20	C	15
MnaByint n l BiomaEn			h6uh	h1u6f		g38S 2		f 5	65 - C20	1	15
MnaByi anmabgayi naBnm			f 0uC	f 1u75		g38S 2		C02	70 - C20	C	15
S ,p-Xyint n			1C7	1C0uC		g38S 2		f 7	70 - C20	1	15
. dpBaBdint n			C2C	C64u7		g38S 2		C16	26 - C46	1	15
o-Xyint n			C0f	C02u6		g38S 2		f 5	6h - C20	C	15
cayrnt n			C06	CC1u5		g38S 2		C06	70 - C20	1	15
anmaAS yi MnaByi v aBnm(TAMv)			C04	C02uf		g38S 2		f f	70 - C20	0	15
anmaz gayi disoBoi (Tz A)			C51	C60u6		g38S 2		C06	65 - C21	C	15
C,C,1,1-TnandsBiomonaBdt n			C71	C76u2		g38S 2		C02	70 - C20	1	15
TnandsBiomonaBnt n			C70	C65u4		g38S 2		f h	70 - C20	2	15
Toignt n			f 4ul	f 4u0h		g38S 2		C00	70 - C20	1	15
andt P-C,1-DeaBiomonaBnt n			f f uC	C06u0		g38S 2		C07	70 - C20	C	15
andt P-C,2-DeaBiomopmopnt n			CC2	C1hu0		g38S 2		CC2	66 - C41	C	15
C,1,4-TmaBiomobnt Nht n			Ch6	12f ul		g38S 2		C1f	5C - C24	1	15
C,C,C-TmaBiomonaBdt n			C26	C41u4		g38S 2		C04	67 - C25	0	15
C,C,1-TmaBiomonaBdt n			C26	C4Cu4		g38S 2		C04	6f - C2C	C	15
TmaBiomonaBnt n			C24	C22u5		g38S 2		f f	6f - C20	C	15
TmaBiomo9gomoS naBdt n			C40	C42u2		g38S 2		C01	61 - C2f	7	15
C,C,1-TmaBiomo-C,1,1-ana9gomonaBd t n			Cf 1	10Cu5		g38S 2		C05	70 - C20	1	15
C,1,4-TmaS naByibnt Nht n			C12	C15u4		g38S 2		C01	6h - C20	1	15
C,2,5-TmaS naByibnt Nht n			C12	C11uh		g38S 2		C00	6f - C20	1	15
Ve yi sBiomaEn			62uf	62u27		g38S 2		f f	65 - C20	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 570-166339/7
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078148 lCC5:20	C
z moS oEaBiomoS naBdt n	. D		24	0u74	g38S 2			078148 lCC5:20	C
z moS o9omS	. D		51	Cuh	g38S 2			078148 lCC5:20	C
z moS oS naBdt n	. D		Cf	0u54	g38S 2			078148 lCC5:20	C
l dmbot anandsBiomaEn	. D		2C	Cu2	g38S 2			078148 lCC5:20	C
l Biomobnt Nht n	. D		12	0u60	g38S 2			078148 lCC5:20	C
l BiomonaBdt n	. D		C2	0u45	g38S 2			078148 lCC5:20	C
l Biomo9omS	. D		14	0u7h	g38S 2			078148 lCC5:20	C
l BiomoS naBdt n	. D		C0	0u22	g38S 2			078148 lCC5:20	C
seP-C,1-DeaBiomonaBnt n	. D		10	0u54	g38S 2			078148 lCC5:20	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166339/7
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
se-P-C,2-DesBiomopropnt n	. D		12	0uf h	g38S 2			078148lCC5:20	C
DebmoS osBiomoS naBdt n	. D		42	OU2	g38S 2			078148lCC5:20	C
C,1-DebmoS onaBdt n	. D		2h	OU2	g38S 2			078148lCC5:20	C
C,1-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078148lCC5:20	C
C,2-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078148lCC5:20	C
C,4-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078148lCC5:20	C
DesBiomoE9gomoS naBdt n	. D		15	0uf h	g38S 2			078148lCC5:20	C
C,C-DesBiomonaBdt n	. D		10	0u41	g38S 2			078148lCC5:20	C
C,1-DesBiomonaBdt n	. D		10	0u5f	g38S 2			078148lCC5:20	C
C,C-DesBiomonaBnt n	. D		10	0u6f	g38S 2			078148lCC5:20	C
C,1-DesBiomopropdt n	. D		12	0u64	g38S 2			078148lCC5:20	C
C,C-De9gomonaBdt n	. D		C40	0uf f	g38S 2			078148lCC5:20	C
DeePopmopyi naBnm(Dlj v)	. D		1C	OU5	g38S 2			078148lCC5:20	C
v aBdt oi	. D		f 4	4uh	g38S 2			078148lCC5:20	C
v aByibnt Nht n	. D		11	OUC	g38S 2			078148lCC5:20	C
v aByi-abgayi naBnm(v Tz v)	. D		1C	OU1	g38S 2			078148lCC5:20	C
4-v aByiaoignt n	. D		15	OU1	g38S 2			078148lCC5:20	C
IPopmopdt oi	. D		C10	0uf 6	g38S 2			078148lCC5:20	C
MnaByint n l BiomeEn	4u261	J	C7	OUf	g38S 2			078148lCC5:20	C
MnaByi anmabgayi naBnm	. D		Ch	OU1	g38S 2			078148lCC5:20	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078148lCC5:20	C
. dpBaBdint n	. D		16	2uC	g38S 2			078148lCC5:20	C
o-Xyint n	. D		11	0uh6	g38S 2			078148lCC5:20	C
cayrnt n	. D		1C	1u2	g38S 2			078148lCC5:20	C
anmeAS yi MnaByi v aBnm(TAMv)	. D		1C	Ouh	g38S 2			078148lCC5:20	C
anmez gayi disoBoi (Tz A)	. D		C5	OUC	g38S 2			078148lCC5:20	C
C,C,1,1-TnandsBiomonaBdt n	. D		24	OUC	g38S 2			078148lCC5:20	C
TnandsBiomonaBnt n	. D		24	OUC	g38S 2			078148lCC5:20	C
Toignt n	. D		Cf	0u50	g38S 2			078148lCC5:20	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078148lCC5:20	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078148lCC5:20	C
C,1,4-TnesBiomobnt Nht n	. D		27	4uf	g38S 2			078148lCC5:20	C
C,C,C-TnesBiomonaBdt n	. D		17	0u7f	g38S 2			078148lCC5:20	C
C,C,1-TnesBiomonaBdt n	. D		17	0u76	g38S 2			078148lCC5:20	C
TnesBiomonaBnt n	. D		17	0uf 6	g38S 2			078148lCC5:20	C
TnesBiomo9gomoS naBdt n	. D		1h	OU2	g38S 2			078148lCC5:20	C
C,C,1-TnesBiomo-C,1,1-ane9gomonaBdt n	. D		2h	1u2	g38S 2			078148lCC5:20	C
C,1,4-TneS naByibnt Nht n	. D		15	OU6	g38S 2			078148lCC5:20	C
C,2,5-TneS naByibnt Nht n	. D		15	OU0	g38S 2			078148lCC5:20	C
Vet yi sBiomeEn	. D		C2	0u4C	g38S 2			078148lCC5:20	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078148lCC5:20	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*07/24/21 15:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 131*		*07/24/21 15:30*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/24/21 15:30*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166339/4
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
z nt Nht n	7f uf	h0uf 5		g38S 2		C0C	6h - C24
z moS oEesBiomoS naBdt n	C6h	C71uC		g38S 2		C02	6f - C21
z moS o9bmS	15h	15hu0		g38S 2		C00	70 - C20
z moS oS naBdt n	f 7uC	f 4u75		g38S 2		f h	65 - C20
l dmbot anandsBiomaEn	C57	C5f u6		g38S 2		C0C	6h - C22
l Biomobnt Nht n	CC5	CC4u4		g38S 2		f f	70 - C20
l BiomonaBdt n	66u0	6hu26		g38S 2		C04	66 - C24
l Biomo9bmS	C11	CChuf		g38S 2		f 7	67 - C2C
l BiomoS naBdt n	5Qu6	50uCh		g38S 2		f 7	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	C01uC		g38S 2		C02	70 - C20
seP-C,2-DesBiomopmopnt n	CC2	C10u0		g38S 2		C06	70 - C24
DebmoS osBiomoS naBdt n	1C2	1CCuf		g38S 2		C00	70 - C20
C,1-DebmoS onaBdt n	Cf 1	Cf 0u2		g38S 2		f f	70 - C20
C,1-DesBiomobnt Nht n	C50	C40u7		g38S 2		f 4	6h - C20
C,2-DesBiomobnt Nht n	C50	C2f uh		g38S 2		f 2	65 - C20
C,4-DesBiomobnt Nht n	C50	C40u6		g38S 2		f 4	64 - C20
DesBiomoEe9gomoS naBdt n	C14	CC7u7		g38S 2		f 5	57 - C2h
C,C-DesBiomonaBdt n	C0C	C0Qu6		g38S 2		C00	6f - C20
C,1-DesBiomonaBdt n	C0C	C01uC		g38S 2		C0C	65 - C26
C,C-DesBiomonaBnt n	f f uC	f 7u27		g38S 2		f h	64 - C25
C,1-DesBiomopmopdt n	CC6	CC7uh		g38S 2		C01	6h - C21
C,C-De9gomonaBdt n	67u5	67uCh	J	g38S 2		f f	57 - C46
DeePopmopyi naBnm(Dlj v)	C04	C02u4		g38S 2		f f	5h - C44
v aBdt oi	Chh	Cf 2uI		g38S 2		C02	6C - C22
v aByibnt Nht n	C0f	C07uI		g38S 2		f f	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	C07u2		g38S 2		C02	67 - C20
4-v aByiaoignt n	C12	CChuh		g38S 2		f 7	6f - C20
MnaByint n l BiomaEn	h6uh	hhuC2		g38S 2		C0C	65 - C20
MnaByi anmabgayi naBnm	f 0uC	f Qu62		g38S 2		C01	70 - C20
S ,p-Xyint n	1C7	10f uI		g38S 2		f 6	70 - C20
. dpBaBdint n	C2C	C16uf		g38S 2		f 7	26 - C46
o-Xyint n	C0f	C01u6		g38S 2		f 4	6h - C20
c ayrnt n	C06	C0f u2		g38S 2		C02	70 - C20
anmaAS yi MnaByi v aBnm(TAMv)	C04	C0hu5		g38S 2		C04	70 - C20
anmaz gayi disoBoi (Tz A)	C51	C4huC		g38S 2		f h	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	C64u7		g38S 2		f 6	70 - C20
TnandsBiomonaBnt n	C70	C6Quf		g38S 2		f 5	70 - C20
Toignt n	f 4uI	f 2u27		g38S 2		f f	70 - C20
andt P-C,1-DesBiomonaBnt n	f f uC	C00uh		g38S 2		C01	70 - C20
andt P-C,2-DesBiomopmopnt n	CC2	C1Qu5		g38S 2		C07	66 - C41
C,1,4-TmaBiomobnt Nht n	Ch6	Ch1u4		g38S 2		f h	5C - C24
C,C,C-TmaBiomonaBdt n	C26	C27uh		g38S 2		C0C	67 - C25
C,C,1-TmaBiomonaBdt n	C26	C4Quh		g38S 2		C04	6f - C2C
TmaBiomonaBnt n	C24	C25uI		g38S 2		C0C	6f - C20
TmaBiomo9gomoS naBdt n	C40	C2huf		g38S 2		f f	61 - C2f
C,C,1-TmaBiomo-C,1,1-ana9gomonaBd t n	Cf 1	Cf 2u4		g38S 2		C0C	70 - C20
C,1,4-TmaS naByibnt Nht n	C12	C10u4		g38S 2		f h	6h - C20
C,2,5-TmaS naByibnt Nht n	C12	CChu0		g38S 2		f 6	6f - C20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166339/4
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ve t yi s Biom aEn			62uf	6Quf 0		g38S 2		f 7	65 - C20		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 570-166339/5
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
z nt Nht n			7f uf	h1u05		g38S 2		C02	6h - C24	C	15
z moS oEesBiomoS naBdt n			C6h	C74u5		g38S 2		C04	6f - C21	C	15
z moS o9bm6			15h	160u4		g38S 2		C0C	70 - C20	C	15
z moS oS naBdt n			f 7uC	f 5u77		g38S 2		f f	65 - C20	C	15
l dmbot anandsBiomaEn			C57	C61u4		g38S 2		C02	6h - C22	1	15
l Biomobnt Nht n			CC5	CC5uC		g38S 2		C00	70 - C20	C	15
l BiomonaBdt n			66u0	6huh6		g38S 2		C04	66 - C24	C	15
l Biomo9bm6			C11	C1Qu6		g38S 2		C00	67 - C2C	1	15
l BiomoS naBdt n			5Qu6	50u05		g38S 2		f 7	60 - C27	0	15
seP-C,1-DesBiomonaBnt n			f f uC	C02u2		g38S 2		C04	70 - C20	C	15
seP-C,2-DesBiomopmopnt n			CC2	C10uC		g38S 2		C06	70 - C24	0	15
DebmoS osBiomoS naBdt n			1C2	1C0ul		g38S 2		f f	70 - C20	C	15
C,1-DebmoS onaBdt n			Cf 1	Cf Cul		g38S 2		C00	70 - C20	0	15
C,1-DesBiomobnt Nht n			C50	C41u4		g38S 2		f 5	6h - C20	C	15
C,2-DesBiomobnt Nht n			C50	C40u0		g38S 2		f 2	65 - C20	0	15
C,4-DesBiomobnt Nht n			C50	C41ul		g38S 2		f 5	64 - C20	C	15
DesBiomoEe9gomoS naBdt n			C14	CC7u7		g38S 2		f 5	57 - C2h	0	15
C,C-DesBiomonaBdt n			C0C	C02uC		g38S 2		C01	6f - C20	1	15
C,1-DesBiomonaBdt n			C0C	C04u4		g38S 2		C02	65 - C26	1	15
C,C-DesBiomonaBnt n			f f uC	f f uC6		g38S 2		C00	64 - C25	1	15
C,1-DesBiompmopdt n			CC6	CCf uh		g38S 2		C04	6h - C21	1	15
C,C-De9gomonaBdt n			67u5	66u56	J	g38S 2		f f	57 - C46	C	15
DeePopmopyi naBnm(Dlj v)			C04	C06u4		g38S 2		C01	5h - C44	2	15
v aBdt oi			Chh	Cf 6u0		g38S 2		C04	6C - C22	C	15
v aByibnt Nht n			C0f	C0huf		g38S 2		C00	70 - C20	1	15
v aByi-abgayi naBnm(v Tz v)			C04	C0hu6		g38S 2		C04	67 - C20	C	15
4-v aByiaoignt n			C12	CCf u5		g38S 2		f 7	6f - C20	C	15
MnaByint n l BiomaEn			h6uh	hf uh4		g38S 2		C02	65 - C20	1	15
MnaByi anmabgayi naBnm			f 0uC	f 1u6h		g38S 2		C02	70 - C20	C	15
S ,p-Xyint n			1C7	10f u5		g38S 2		f 6	70 - C20	0	15
. dpBaBdint n			C2C	C1hu5		g38S 2		f h	26 - C46	C	15
o-Xyint n			C0f	C04u4		g38S 2		f 6	6h - C20	1	15
c ayrnt n			C06	CC0u4		g38S 2		C04	70 - C20	C	15
anmaAS yi MnaByi v aBnm(TAMv)			C04	C0f u5		g38S 2		C05	70 - C20	C	15
anmaz gayi disoBoi (Tz A)			C51	C52u5		g38S 2		C0C	65 - C21	4	15
C,C,1,1-TnandsBiomonaBdt n			C71	C67u7		g38S 2		f h	70 - C20	1	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166339/5
Matrix: Air
Analysis Batch: 166339

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TnandsBiomonaBnt n			C70	C62u0		g38S 2		f 6	70 - C20	C	15
Toignt n			f 4ul	f 2u00		g38S 2		f f	70 - C20	0	15
andt P-C,1-DesBiomonaBnt n			f f uC	C02u4		g38S 2		C04	70 - C20	1	15
andt P-C,2-DesBiomopropnt n			CC2	C11uC		g38S 2		C0h	66 - C41	C	15
C,1,4-TnasBiomobnt Nht n			Ch6	Ch1uh		g38S 2		f f	5C - C24	0	15
C,C,C-TnasBiomonaBdt n			C26	C4C0		g38S 2		C02	67 - C25	1	15
C,C,1-TnasBiomonaBdt n			C26	C42u5		g38S 2		C05	6f - C2C	C	15
TnasBiomonaBnt n			C24	C27uh		g38S 2		C02	6f - C20	1	15
TnasBiomo9gomoS naBdt n			C40	C4C0		g38S 2		C00	61 - C2f	1	15
C,C,1-TnasBiomo-C,1,1-ane9gomonaBd t n			Cf 1	Cf 7u4		g38S 2		C02	70 - C20	1	15
C,1,4-TnaS naByibnt Nht n			C12	C1Cuh		g38S 2		f f	6h - C20	C	15
C,2,5-TnaS naByibnt Nht n			C12	CChu4		g38S 2		f 6	6f - C20	0	15
Ve yi sBiomaEn			62uf	61ul2		g38S 2		f 7	65 - C20	C	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 131*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 570-166372/7
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078148 CC5:01	C
z moS oEesBiomoS naBdt n	. D		24	0u74	g38S 2			078148 CC5:01	C
z moS o9bn6	. D		51	Cuh	g38S 2			078148 CC5:01	C
z moS oS naBdt n	. D		Cf	0u54	g38S 2			078148 CC5:01	C
l drbot anandsBiomaEn	. D		2C	Cu2	g38S 2			078148 CC5:01	C
l Biomobnt Nht n	. D		12	0u60	g38S 2			078148 CC5:01	C
l BiomonaBdt n	. D		C2	0u45	g38S 2			078148 CC5:01	C
l Biomo9bn6	. D		14	0u7h	g38S 2			078148 CC5:01	C
l BiomoS naBdt n	. D		C0	0u22	g38S 2			078148 CC5:01	C
seP-C,1-DesBiomonaBnt n	. D		10	0u54	g38S 2			078148 CC5:01	C
seP-C,2-DesBiomopropnt n	. D		12	0uf h	g38S 2			078148 CC5:01	C
DebmoS osBiomoS naBdt n	. D		42	Cu2	g38S 2			078148 CC5:01	C
C,1-DebmoS onaBdt n	. D		2h	Cu2	g38S 2			078148 CC5:01	C
C,1-DesBiomobnt Nht n	. D		20	Cu5	g38S 2			078148 CC5:01	C
C,2-DesBiomobnt Nht n	. D		20	Cu5	g38S 2			078148 CC5:01	C
C,4-DesBiomobnt Nht n	. D		20	Cu5	g38S 2			078148 CC5:01	C
DesBiomoEe9gomoS naBdt n	. D		15	0uf h	g38S 2			078148 CC5:01	C
C,C-DesBiomonaBdt n	. D		10	0u41	g38S 2			078148 CC5:01	C
C,1-DesBiomonaBdt n	. D		10	0u5f	g38S 2			078148 CC5:01	C
C,C-DesBiomonaBnt n	. D		10	0u6f	g38S 2			078148 CC5:01	C
C,1-DesBiomopropdt n	. D		12	0u64	g38S 2			078148 CC5:01	C
C,C-De9gomonaBdt n	. D		C40	0uf f	g38S 2			078148 CC5:01	C
DeePopropyi naBnm(Dlj v)	. D		1C	Cu5	g38S 2			078148 CC5:01	C
v aBdt oi	. D		f 4	4uh	g38S 2			078148 CC5:01	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166372/7
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
v aByibnt Nht n	. D		11	QuC	g38S 2			078148lCC5:01	C
v aByi-abgayi naBnm(v Tz v)	. D		1C	Qu1	g38S 2			078148lCC5:01	C
4-v aByiaoignt n	. D		15	Qu1	g38S 2			078148lCC5:01	C
IPopropdt oi	. D		C10	0uf 6	g38S 2			078148lCC5:01	C
MnaByint n l BiomaEn	2uh6C	J	C7	Quf	g38S 2			078148lCC5:01	C
MnaByi anna-abgayi naBnm	. D		Ch	Qu1	g38S 2			078148lCC5:01	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078148lCC5:01	C
. dpBaBdint n	. D		16	2uC	g38S 2			078148lCC5:01	C
o-Xyint n	. D		11	0uh6	g38S 2			078148lCC5:01	C
c ayrnt n	. D		1C	1u2	g38S 2			078148lCC5:01	C
anna-AS yi MnaByi v aBnm(TAMv)	. D		1C	Quh	g38S 2			078148lCC5:01	C
anna-z gayi disoBoi (Tz A)	. D		C5	QuC	g38S 2			078148lCC5:01	C
C,C,1,1-TnandsBiomonaBdt n	. D		24	QuC	g38S 2			078148lCC5:01	C
TnandsBiomonaBnt n	. D		24	QuC	g38S 2			078148lCC5:01	C
Toignt n	. D		Cf	0u50	g38S 2			078148lCC5:01	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078148lCC5:01	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078148lCC5:01	C
C,1,4-TnasBiomobnt Nht n	. D		27	4uf	g38S 2			078148lCC5:01	C
C,C,C-TnasBiomonaBdt n	. D		17	0u7f	g38S 2			078148lCC5:01	C
C,C,1-TnasBiomonaBdt n	. D		17	0u76	g38S 2			078148lCC5:01	C
TnasBiomonaBnt n	. D		17	0uf 6	g38S 2			078148lCC5:01	C
TnasBiomo9gomoS naBdt n	. D		1h	QuC	g38S 2			078148lCC5:01	C
C,C,1-TnasBiomo-C,1,1-an9gomonaBdt n	. D		2h	1u2	g38S 2			078148lCC5:01	C
C,1,4-TnaS naByibnt Nht n	. D		15	Qu6	g38S 2			078148lCC5:01	C
C,2,5-TnaS naByibnt Nht n	. D		15	Qu0	g38S 2			078148lCC5:01	C
Ve yi sBiomaEn	. D		C2	0u4C	g38S 2			078148lCC5:01	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078148lCC5:01	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*07/24/21 15:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 131*		*07/24/21 15:02*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*07/24/21 15:02*	*1*

Lab Sample ID: LCS 570-166372/4
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
z nt Nht n	7f uf	75u76		g38S 2		f 5	6h - C24
z moS oEesBiomoS naBdt n	C6h	C67uC		g38S 2		C00	6f - C21
z moS o9om6	15h	1h0u2		g38S 2		C0h	70 - C20
z moS oS naBdt n	f 7uC	f hu64		g38S 2		C01	65 - C20
l dmbot anandsBiomaEn	C57	C4f u4		g38S 2		f 5	6h - C22
l Biomobnt Nht n	CC5	C0huI		g38S 2		f 4	70 - C20
l BiomonaBdt n	66u0	6f u55		g38S 2		C05	66 - C24
l Biomo9om6	C11	C1f u4		g38S 2		C06	67 - C2C
l BiomoS naBdt n	5Qu6	51uf 6		g38S 2		C02	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	f hu00		g38S 2		f f	70 - C20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166372/4
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
seP-C,2-DesBiomopmopnt n	CC2	CC0uh		g38S 2		f h	70 - C24
DeomoS osBiomoS naBdt n	1C2	10f uh		g38S 2		f h	70 - C20
C,1-DeomoS onaBdt n	Cf 1	Ch6uf		g38S 2		f 7	70 - C20
C,1-DesBiomobnt Nnt n	C50	C45u0		g38S 2		f 6	6h - C20
C,2-DesBiomobnt Nnt n	C50	C55uC		g38S 2		C02	65 - C20
C,4-DesBiomobnt Nnt n	C50	C56uf		g38S 2		C04	64 - C20
DesBiomoE-9gomoS naBdt n	C14	CChuh		g38S 2		f 6	57 - C2h
C,C-DesBiomonaBdt n	C0C	C04u0		g38S 2		C02	6f - C20
C,1-DesBiomonaBdt n	C0C	C05u1		g38S 2		C04	65 - C26
C,C-DesBiomonaBnt n	f f uC	C02u2		g38S 2		C04	64 - C25
C,1-DesBiomopmopdt n	CC6	CC5u5		g38S 2		C00	6h - C21
C,C-De9gomonaBdt n	67u5	6hu40	J	g38S 2		C0C	57 - C46
DeePopmopyi naBnm(DIj v)	C04	C17u5		g38S 2		C11	5h - C44
v aBdt oi	Chh	106uf		g38S 2		CC0	6C - C22
v aByibnt Nnt n	C0f	C05u0		g38S 2		f 7	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	CC1u2		g38S 2		C07	67 - C20
4-v aByiaoignt n	C12	C1Cu2		g38S 2		f f	6f - C20
MnaByint n l BiomeEn	h6uh	7hu6C		g38S 2		f C	65 - C20
MnaByi anna-bgayi naBnm	f 0uC	f 0u5f		g38S 2		C0C	70 - C20
S ,p-Xyint n	1C7	154u0		g38S 2		CC7	70 - C20
. dpBaBdint n	C2C	C45u7		g38S 2		CCC	26 - C46
o-Xyint n	C0f	C0hu7		g38S 2		C00	6h - C20
c aymnt n	C06	C01u1		g38S 2		f 6	70 - C20
anna-AS yi MnaByi v aBnm(TAMv)	C04	C01u7		g38S 2		f h	70 - C20
anna-z gayi disoBoi (Tz A)	C51	C6hu0		g38S 2		CCC	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	ChCu6		g38S 2		C06	70 - C20
TnandsBiomonaBnt n	C70	C51u7		g38S 2		f 0	70 - C20
Toignt n	f 4u1	hhu6C		g38S 2		f 4	70 - C20
andt P-C,1-DesBiomonaBnt n	f f uC	f 7uCC		g38S 2		f h	70 - C20
andt P-C,2-DesBiomopmopnt n	CC2	CC1u0		g38S 2		f f	66 - C41
C,1,4-TmesBiomobnt Nnt n	Ch6	101u7		g38S 2		C0f	5C - C24
C,C,C-TmesBiomonaBdt n	C26	C2hu7		g38S 2		C01	67 - C25
C,C,1-TmesBiomonaBdt n	C26	C25u2		g38S 2		f f	6f - C2C
TmesBiomonaBnt n	C24	C20uh		g38S 2		f 7	6f - C20
TmesBiomo9gomoS naBdt n	C40	C51u2		g38S 2		C0h	61 - C2f
C,C,1-TmesBiomo-C,1,1-ane9gomonaBd t n	Cf 1	106uC		g38S 2		C0h	70 - C20
C,1,4-TmeS naByibnt Nnt n	C12	C21u7		g38S 2		C0h	6h - C20
C,2,5-TmeS naByibnt Nnt n	C12	C1Cu0		g38S 2		f h	6f - C20
Vet yi sBiomeEn	62uf	67u0h		g38S 2		C05	65 - C20

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 131*
Toluene-d8 (Surr)	*104*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166372/5
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
z nt Nht n			7f uf	75uhC		g38S 2		f 5	6h - C24	0	15
z moS oEesBiomoS naBdt n			C6h	C66u7		g38S 2		f f	6f - C21	0	15
z moS o9bmS			15h	17f uf		g38S 2		C0h	70 - C20	0	15
z moS oS naBdt n			f 7uC	f hu4h		g38S 2		C0C	65 - C20	0	15
l dmbot anandsBiomaEn			C57	C4f uh		g38S 2		f 5	6h - C22	0	15
l Biomobnt Nht n			CC5	C07uf		g38S 2		f 4	70 - C20	0	15
l BiomonaBdt n			66u0	6f u44		g38S 2		C05	66 - C24	0	15
l Biomo9bmS			C11	C1huh		g38S 2		C06	67 - C2C	0	15
l BiomoS naBdt n			5CU6	51u65		g38S 2		C01	60 - C27	C	15
seP-C,1-DesBiomonaBnt n			f f uC	f 7u27		g38S 2		f h	70 - C20	C	15
seP-C,2-DesBiomopmopnt n			CC2	CC0uf		g38S 2		f 7	70 - C24	C	15
DebmoS osBiomoS naBdt n			1C2	10f u0		g38S 2		f h	70 - C20	0	15
C,1-DebmoS onaBdt n			Cf 1	Ch6uC		g38S 2		f 7	70 - C20	0	15
C,1-DesBiomobnt Nht n			C50	C42uf		g38S 2		f 6	6h - C20	C	15
C,2-DesBiomobnt Nht n			C50	C54u4		g38S 2		C02	65 - C20	0	15
C,4-DesBiomobnt Nht n			C50	C56uf		g38S 2		C04	64 - C20	0	15
DesBiomoEe9gomoS naBdt n			C14	CC4u2		g38S 2		f 1	57 - C2h	4	15
C,C-DesBiomonaBdt n			C0C	C01uh		g38S 2		C01	6f - C20	C	15
C,1-DesBiomonaBdt n			C0C	C04uh		g38S 2		C04	65 - C26	0	15
C,C-DesBiomonaBnt n			f f uC	C01uC		g38S 2		C02	64 - C25	C	15
C,1-DesBiomopmopdt n			CC6	CC5u0		g38S 2		C00	6h - C21	0	15
C,C-De9gomonaBdt n			67u5	67uh5	J	g38S 2		C00	57 - C46	C	15
DeePopmopyi naBnm(Dlj v)			C04	C16uf		g38S 2		C1C	5h - C44	C	15
v aBdt oi			Chh	105u4		g38S 2		C0f	6C - C22	C	15
v aByibnt Nht n			C0f	C04uf		g38S 2		f 7	70 - C20	0	15
v aByi-abgayi naBnm(v Tz v)			C04	CCCu4		g38S 2		C07	67 - C20	C	15
4-v aByiaoignt n			C12	C1CU0		g38S 2		f h	6f - C20	0	15
MnaByint n l BiomaEn			h6uh	7huf f		g38S 2		f 0	65 - C20	0	15
MnaByi anmabgayi naBnm			f 0uC	hf u27		g38S 2		f f	70 - C20	C	15
S ,p-Xyint n			1C7	151uf		g38S 2		CC6	70 - C20	0	15
. dpBaBdint n			C2C	C46uf		g38S 2		CC1	26 - C46	0	15
o-Xyint n			C0f	C0huC		g38S 2		f f	6h - C20	C	15
c ayrnt n			C06	C01u2		g38S 2		f 6	70 - C20	0	15
anmaAS yi MnaByi v aBnm(TAMv)			C04	C01u5		g38S 2		f h	70 - C20	0	15
anmaz gayi disoBoi (Tz A)			C51	C67u2		g38S 2		CC0	65 - C21	0	15
C,C,1,1-TnandsBiomonaBdt n			C71	Ch0u5		g38S 2		C05	70 - C20	C	15
TnandsBiomonaBnt n			C70	C51uf		g38S 2		f 0	70 - C20	0	15
Toignt n			f 4uf	hhu0h		g38S 2		f 2	70 - C20	C	15
andt P-C,1-DesBiomonaBnt n			f f uC	f 7u5C		g38S 2		f h	70 - C20	0	15
andt P-C,2-DesBiomopmopnt n			CC2	CC0uf		g38S 2		f h	66 - C41	C	15
C,1,4-TmaBiomobnt Nht n			Ch6	10CU0		g38S 2		C0h	5C - C24	C	15
C,C,C-TmaBiomonaBdt n			C26	C27u4		g38S 2		C0C	67 - C25	C	15
C,C,1-TmaBiomonaBdt n			C26	C24uf		g38S 2		f f	6f - C2C	0	15
TmaBiomonaBnt n			C24	C1f uf		g38S 2		f 7	6f - C20	C	15
TmaBiomo9gomoS naBdt n			C40	C5CuC		g38S 2		C0h	61 - C2f	C	15
C,C,1-TmaBiomo-C,1,1-ana9gomonaBd t n			Cf 1	104uC		g38S 2		C07	70 - C20	C	15
C,1,4-TmaS naByibnt Nht n			C12	C20uf		g38S 2		C06	6h - C20	1	15
C,2,5-TmaS naByibnt Nht n			C12	C10uf		g38S 2		f h	6f - C20	C	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166372/5
Matrix: Air
Analysis Batch: 166372

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ve t yi s Biom aEn			62uf	66u7f		g38S 2		C05	65 - C20	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 570-166374/6
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078168l C C2:2C	C
z mo S oEes Biom oS naBdt n	. D		24	0u74	g38S 2			078168l C C2:2C	C
z mo S o9bm6	. D		51	Cuh	g38S 2			078168l C C2:2C	C
z mo S oS naBdt n	. D		Cf	0u54	g38S 2			078168l C C2:2C	C
l dmbot anandsBiom aEn	. D		2C	Cu2	g38S 2			078168l C C2:2C	C
l Biom obnt Nht n	. D		12	0u60	g38S 2			078168l C C2:2C	C
l Biom onaBdt n	. D		C2	0u45	g38S 2			078168l C C2:2C	C
l Biom o9bm6	. D		14	0u7h	g38S 2			078168l C C2:2C	C
l Biom oS naBdt n	. D		C0	0u22	g38S 2			078168l C C2:2C	C
se P-C,1-Des Biom onaBnt n	. D		10	0u54	g38S 2			078168l C C2:2C	C
se P-C,2-Des Biom opropnt n	. D		12	0uf h	g38S 2			078168l C C2:2C	C
De bm oS os Biom oS naBdt n	. D		42	Cu2	g38S 2			078168l C C2:2C	C
C,1-De bm oS onaBdt n	. D		2h	Cu2	g38S 2			078168l C C2:2C	C
C,1-Des Biom obnt Nht n	. D		20	Cu5	g38S 2			078168l C C2:2C	C
C,2-Des Biom obnt Nht n	. D		20	Cu5	g38S 2			078168l C C2:2C	C
C,4-Des Biom obnt Nht n	. D		20	Cu5	g38S 2			078168l C C2:2C	C
Des Biom oEe9gom oS naBdt n	. D		15	0uf h	g38S 2			078168l C C2:2C	C
C,C-Des Biom onaBdt n	. D		10	0u41	g38S 2			078168l C C2:2C	C
C,1-Des Biom onaBdt n	. D		10	0u5f	g38S 2			078168l C C2:2C	C
C,C-Des Biom onaBnt n	. D		10	0u6f	g38S 2			078168l C C2:2C	C
C,1-Des Biom opropdt n	. D		12	0u64	g38S 2			078168l C C2:2C	C
C,C-De9gom onaBdt n	. D		C40	0uf f	g38S 2			078168l C C2:2C	C
Dee Popropyi naBnm (Dlj v)	. D		1C	Cu5	g38S 2			078168l C C2:2C	C
v aBdt oi	. D		f 4	4uh	g38S 2			078168l C C2:2C	C
v aByibnt Nht n	. D		11	CuC	g38S 2			078168l C C2:2C	C
v aByi-abgayi naBnm (v Tz v)	. D		1C	Cu1	g38S 2			078168l C C2:2C	C
4-v aByiaoignt n	. D		15	Cu1	g38S 2			078168l C C2:2C	C
lPopropdt oi	. D		C10	0uf 6	g38S 2			078168l C C2:2C	C
MnaByint n l Biom aEn	4u042	J	C7	Cuf	g38S 2			078168l C C2:2C	C
MnaByi anna bgayi naBnm	. D		Ch	Cu1	g38S 2			078168l C C2:2C	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078168l C C2:2C	C
. dpBaBdint n	. D		16	2uC	g38S 2			078168l C C2:2C	C
o-Xyint n	. D		11	0uh6	g38S 2			078168l C C2:2C	C
c ayrnt n	. D		1C	1u2	g38S 2			078168l C C2:2C	C
anna AS yi MnaByi v aBnm (TAMv)	. D		1C	Cuh	g38S 2			078168l C C2:2C	C
anna z gayi disoBoi (Tz A)	. D		C5	CuC	g38S 2			078168l C C2:2C	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166374/6
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C,C,1,1-TnandsBiomonaBdt n	. D		24	QuC	g38S 2			078l68l CC2:2C	C
TnandsBiomonaBnt n	. D		24	QuC	g38S 2			078l68l CC2:2C	C
Toignt n	. D		Cf	0u50	g38S 2			078l68l CC2:2C	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078l68l CC2:2C	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078l68l CC2:2C	C
C,1,4-TnasBiomobnt Nht n	. D		27	4uf	g38S 2			078l68l CC2:2C	C
C,C,C-TnasBiomonaBdt n	. D		17	0u7f	g38S 2			078l68l CC2:2C	C
C,C,1-TnasBiomonaBdt n	. D		17	0u76	g38S 2			078l68l CC2:2C	C
TnasBiomonaBnt n	. D		17	0uf 6	g38S 2			078l68l CC2:2C	C
TnasBiomo9gomoS naBdt n	. D		1h	QU2	g38S 2			078l68l CC2:2C	C
C,C,1-TnasBiomo-C,1,1-an9gomonaBdt n	. D		2h	1u2	g38S 2			078l68l CC2:2C	C
C,1,4-TnaS naByibnt Nht n	. D		15	Qu6	g38S 2			078l68l CC2:2C	C
C,2,5-TnaS naByibnt Nht n	. D		15	Qu0	g38S 2			078l68l CC2:2C	C
Ve yi sBiomaEn	. D		C2	0u4C	g38S 2			078l68l CC2:2C	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078l68l CC2:2C	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*07/26/21 13:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 131*		*07/26/21 13:31*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*07/26/21 13:31*	*1*

Lab Sample ID: LCS 570-166374/3
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
znt Nht n	7f uf	76u4h		g38S 2		f 6	6h - C24
zmoS oEesBiomoS naBdt n	C6h	C6f u6		g38S 2		C0C	6f - C21
zmoS o9bn6	15h	1h1u2		g38S 2		C0f	70 - C20
zmoS oS naBdt n	f 7uC	C00uf		g38S 2		C04	65 - C20
l drbot anandsBiomaEn	C57	C51u0		g38S 2		f 7	6h - C22
l Biomobnt Nht n	CC5	C0hu6		g38S 2		f 4	70 - C20
l BiomonaBdt n	66u0	7QU54		g38S 2		C0h	66 - C24
l Biomo9bn6	C11	C21uh		g38S 2		C0f	67 - C2C
l BiomoS naBdt n	5QU6	54uCC		g38S 2		C05	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	f f ul5		g38S 2		C00	70 - C20
seP-C,2-DesBiomopropnt n	CC2	CCCUf		g38S 2		f f	70 - C24
DebmoS osBiomoS naBdt n	1C2	1C1u2		g38S 2		C00	70 - C20
C,1-DebmoS onaBdt n	Cf 1	Chhu0		g38S 2		f h	70 - C20
C,1-DesBiomobnt Nht n	C50	C44u6		g38S 2		f 6	6h - C20
C,2-DesBiomobnt Nht n	C50	C55u0		g38S 2		C02	65 - C20
C,4-DesBiomobnt Nht n	C50	C57uh		g38S 2		C05	64 - C20
DesBiomoE9gomoS naBdt n	C14	C12u7		g38S 2		C00	57 - C2h
C,C-DesBiomonaBdt n	C0C	C05uf		g38S 2		C05	6f - C20
C,1-DesBiomonaBdt n	C0C	C07uh		g38S 2		C07	65 - C26
C,C-DesBiomonaBnt n	f f uC	C05uh		g38S 2		C07	64 - C25
C,1-DesBiomopropdt n	CC6	CC5uh		g38S 2		C00	6h - C21
C,C-De9gomonaBdt n	67u5	70u25	J	g38S 2		C04	57 - C46

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166374/3
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DeePopmopyi naBnm(Dlj v)	C04	C21uC		g36S 2		C16	5h - C44
v aBdt oi	Chh	1Cf uC		g36S 2		CC6	6C - C22
v aByibnt Nht n	C0f	C05u7		g36S 2		f 7	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	CC5u6		g36S 2		CCC	67 - C20
4-v aByiaoignt n	C12	C11u0		g36S 2		f f	6f - C20
MnaByint n l BiomaEn	h6uh	h0u24		g36S 2		f 2	65 - C20
MnaByi anmabgayi naBnm	f 0uC	f 1ufh		g36S 2		C01	70 - C20
S ,p-Xyint n	1C7	155uh		g36S 2		CCh	70 - C20
. dpBaBdint n	C2C	C44uC		g36S 2		CC0	26 - C46
o-Xyint n	C0f	CC0ufl		g36S 2		C01	6h - C20
c ayrnt n	C06	C02u4		g36S 2		f 7	70 - C20
anmaAS yi MnaByi v aBnm(TAMv)	C04	C05u4		g36S 2		C0C	70 - C20
anmaz gayi disoBoi (Tz A)	C51	C72u6		g36S 2		CC5	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	Ch1ufl		g36S 2		C06	70 - C20
TnandsBiomonaBnt n	C70	C52uf		g36S 2		f C	70 - C20
Toignt n	f 4ufl	hf uflC		g36S 2		f 5	70 - C20
andt P-C,1-DesBiomonaBnt n	f f uC	f f u04		g36S 2		C00	70 - C20
andt P-C,2-DesBiomopmopnt n	CC2	CC1uf		g36S 2		C00	66 - C41
C,1,4-TnasBiomobnt Nht n	Ch6	10Cu6		g36S 2		C0f	5C - C24
C,C,C-TnasBiomonaBdt n	C26	C4Cu0		g36S 2		C02	67 - C25
C,C,1-TnasBiomonaBdt n	C26	C26uC		g36S 2		C00	6f - C2C
TnasBiomonaBnt n	C24	C2Cu7		g36S 2		f h	6f - C20
TnasBiomo9gomoS naBdt n	C40	C57u7		g36S 2		CC1	61 - C2f
C,C,1-TnasBiomo-C,1,1-ans9gomonaBd t n	Cf 1	1C0uh		g36S 2		CC0	70 - C20
C,1,4-TnaS naByibnt Nht n	C12	C22u2		g36S 2		C0h	6h - C20
C,2,5-TnaS naByibnt Nht n	C12	C1Cu7		g36S 2		f f	6f - C20
Vet yi sBiomaEn	62uf	6hu5f		g36S 2		C07	65 - C20

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 131*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 570-166374/4
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
z nt Nht n	7f uf	77u22		g36S 2		f 7	6h - C24	C	15
z moS oEesBiomoS naBdt n	C6h	C71ufl		g36S 2		C02	6f - C21	1	15
z moS o9bmS	15h	1h6u6		g36S 2		CCC	70 - C20	1	15
z moS oS naBdt n	f 7uC	C0Cuf		g36S 2		C05	65 - C20	C	15
l dmbot anandsBiomaEn	C57	C54u6		g36S 2		f h	6h - C22	1	15
l Biomobnt Nht n	CC5	C0f u7		g36S 2		f 5	70 - C20	C	15
l BiomonaBdt n	66u0	71u04		g36S 2		C0f	66 - C24	C	15
l Biomo9bmS	C11	C24u0		g36S 2		CC0	67 - C2C	C	15
l BiomoS naBdt n	5Cu6	54u60		g36S 2		C06	60 - C27	C	15
seP-C,1-DesBiomonaBnt n	f f uC	f f u56		g36S 2		C00	70 - C20	0	15

v gmo9t PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166374/4
Matrix: Air
Analysis Batch: 166374

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
se P-C,2-Des Biomopropnt n	CC2	CC2u2		g36S 2		C00	70 - C24	C	15
De omoS osBiomoS naBdt n	1C2	1C2uf		g36S 2		C00	70 - C20	C	15
C,1-De omoS onaBdt n	Cf 1	Chf u4		g36S 2		f f	70 - C20	C	15
C,1-Des Biomobnt Nht n	C50	C46u0		g36S 2		f 7	6h - C20	C	15
C,2-Des Biomobnt Nht n	C50	C57uh		g36S 2		C05	65 - C20	1	15
C,4-Des Biomobnt Nht n	C50	C5f uf		g36S 2		C06	64 - C20	C	15
Des Biomo E9gomoS naBdt n	C14	C10uC		g36S 2		f 7	57 - C2h	2	15
C,C-Des Biomonat n	C0C	C06uf		g36S 2		C06	6f - C20	C	15
C,1-Des Biomonat n	C0C	C0f u4		g36S 2		C0h	65 - C26	C	15
C,C-Des Biomonat nt n	f f uC	C06u5		g36S 2		C07	64 - C25	C	15
C,1-Des Biomopropdt n	CC6	CChu0		g36S 2		C01	6h - C21	1	15
C,C-De9gomonat n	67u5	7CuC5	J	g36S 2		C05	57 - C46	C	15
De e Popropyi naBnm(Dlj v)	C04	C21uf		g36S 2		C17	5h - C44	C	15
v aBdt oi	Chh	11Cu5		g36S 2		CCh	6C - C22	C	15
v aByibnt Nht n	C0f	C06uf		g36S 2		f h	70 - C20	C	15
v aByi-abgayi naBnm(v Tz v)	C04	CC6u7		g36S 2		CC1	67 - C20	C	15
4-v aByiaoignt n	C12	C12u2		g36S 2		C00	6f - C20	C	15
MnaByint n l BiomeEn	h6uh	hCu21		g36S 2		f 4	65 - C20	C	15
MnaByi anmabgayi naBnm	f 0uC	f 1u6h		g36S 2		C02	70 - C20	0	15
S ,p-Xyint n	1C7	15f ul		g36S 2		CCf	70 - C20	C	15
. dpBaBdint n	C2C	C4hu0		g36S 2		CC2	26 - C46	2	15
o-Xyint n	C0f	CC0u7		g36S 2		C01	6h - C20	0	15
c ayrnt n	C06	C04ul		g36S 2		f h	70 - C20	C	15
anmaAS yi MnaByi v aBnm(TAMv)	C04	C07uC		g36S 2		C02	70 - C20	1	15
anmaz gayi disoBoi (Tz A)	C51	C77u6		g36S 2		CC7	65 - C21	1	15
C,C,1,1-Tnands Biomonat n	C71	Ch4u2		g36S 2		C07	70 - C20	C	15
Tnands Biomonat nt n	C70	C55u0		g36S 2		f C	70 - C20	C	15
Toignt n	f 4ul	hf uf 7		g36S 2		f 5	70 - C20	C	15
andt P-C,1-Des Biomonat nt n	f f uC	f f u6C		g36S 2		C00	70 - C20	C	15
andt P-C,2-Des Biomopropnt n	CC2	CC4ul		g36S 2		C0C	66 - C41	C	15
C,1,4-Tnas Biomobnt Nht n	Ch6	104uC		g36S 2		CC0	5C - C24	C	15
C,C,C-Tnas Biomonat n	C26	C42uC		g36S 2		C05	67 - C25	1	15
C,C,1-Tnas Biomonat n	C26	C2f uC		g36S 2		C01	6f - C2C	1	15
Tnas Biomonat nt n	C24	C24u4		g36S 2		C00	6f - C20	1	15
Tnas Biomo9gomoS naBdt n	C40	C5f uf		g36S 2		CC4	61 - C2f	C	15
C,C,1-Tnas Biomo-C,1,1-ans9gomonaBd t n	Cf 1	1C1uh		g36S 2		CCC	70 - C20	C	15
C,1,4-Tna S naByibnt Nht n	C12	C25u0		g36S 2		CC0	6h - C20	C	15
C,2,5-Tna S naByibnt Nht n	C12	C12u0		g36S 2		C00	6f - C20	C	15
Ve t yi s BiomeEn	62uf	6f u27		g36S 2		C0f	65 - C20	C	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 131*
Toluene-d8 (Surr)	*106*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166377/6
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078148lCC1:45	C
z moS oEesBiomoS naBdt n	. D		24	0u74	g38S 2			078148lCC1:45	C
z moS o9bm6	. D		51	Quh	g38S 2			078148lCC1:45	C
z moS oS naBdt n	. D		Cf	0u54	g38S 2			078148lCC1:45	C
l drnbot anandsBiomaEn	. D		2C	Qu2	g38S 2			078148lCC1:45	C
l Biomobnt Nht n	. D		12	0u60	g38S 2			078148lCC1:45	C
l BiomonaBdt n	. D		C2	0u45	g38S 2			078148lCC1:45	C
l Biomo9bm6	. D		14	0u7h	g38S 2			078148lCC1:45	C
l BiomoS naBdt n	. D		C0	0u22	g38S 2			078148lCC1:45	C
seP-C,1-DesBiomonaBnt n	. D		10	0u54	g38S 2			078148lCC1:45	C
seP-C,2-DesBiomopropnt n	. D		12	0uf h	g38S 2			078148lCC1:45	C
DebmoS osBiomoS naBdt n	. D		42	Qu2	g38S 2			078148lCC1:45	C
C,1-DebmoS onaBdt n	. D		2h	Qu2	g38S 2			078148lCC1:45	C
C,1-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC1:45	C
C,2-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC1:45	C
C,4-DesBiomobnt Nht n	. D		20	Qu5	g38S 2			078148lCC1:45	C
DesBiomoEe9gomoS naBdt n	. D		15	0uf h	g38S 2			078148lCC1:45	C
C,C-DesBiomonaBdt n	. D		10	0u41	g38S 2			078148lCC1:45	C
C,1-DesBiomonaBdt n	. D		10	0u5f	g38S 2			078148lCC1:45	C
C,C-DesBiomonaBnt n	. D		10	0u6f	g38S 2			078148lCC1:45	C
C,1-DesBiomopropdt n	. D		12	0u64	g38S 2			078148lCC1:45	C
C,C-De9gomonaBdt n	. D		C40	0uf f	g38S 2			078148lCC1:45	C
DeePopropyi naBnm(Dlj v)	. D		1C	Qu5	g38S 2			078148lCC1:45	C
v aBdt oi	. D		f 4	4uh	g38S 2			078148lCC1:45	C
v aByibnt Nht n	. D		11	QuC	g38S 2			078148lCC1:45	C
v aByi-abgayi naBnm(v Tz v)	. D		1C	Qu1	g38S 2			078148lCC1:45	C
4-v aByiaoignt n	. D		15	Qu1	g38S 2			078148lCC1:45	C
IPopropdt oi	. D		C10	0uf 6	g38S 2			078148lCC1:45	C
MnaByint n l BiomaEn	4uf 5C J		C7	Quf	g38S 2			078148lCC1:45	C
MnaByi anna-abgayi naBnm	. D		Ch	Qu1	g38S 2			078148lCC1:45	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078148lCC1:45	C
. dpBaBdint n	. D		16	2uC	g38S 2			078148lCC1:45	C
o-Xyint n	. D		11	0uh6	g38S 2			078148lCC1:45	C
c ayrnt n	. D		1C	1u2	g38S 2			078148lCC1:45	C
anna-AS yi MnaByi v aBnm(TAMv)	. D		1C	Quh	g38S 2			078148lCC1:45	C
anna-z gayi disoBoi (Tz A)	. D		C5	QuC	g38S 2			078148lCC1:45	C
C,C,1,1-TnandsBiomonaBdt n	. D		24	QuC	g38S 2			078148lCC1:45	C
TnandsBiomonaBnt n	. D		24	QuC	g38S 2			078148lCC1:45	C
Toignt n	. D		Cf	0u50	g38S 2			078148lCC1:45	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078148lCC1:45	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078148lCC1:45	C
C,1,4-TnasBiomobnt Nht n	. D		27	4uf	g38S 2			078148lCC1:45	C
C,C,C-TnasBiomonaBdt n	. D		17	0u7f	g38S 2			078148lCC1:45	C
C,C,1-TnasBiomonaBdt n	. D		17	0u76	g38S 2			078148lCC1:45	C
TnasBiomonaBnt n	. D		17	0uf 6	g38S 2			078148lCC1:45	C
TnasBiomo9gomoS naBdt n	. D		1h	Qu2	g38S 2			078148lCC1:45	C
C,C,1-TnasBiomo-C,1,1-ane9gomonaBdt n	. D		2h	1u2	g38S 2			078148lCC1:45	C
C,1,4-TnaS naByibnt Nht n	. D		15	Qu6	g38S 2			078148lCC1:45	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166377/6
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C,2,5-TmeS naByibnt Nht n	. D		15	CU0	g38S 2			078l48lCC1:45	C
Ve yi sBiomeEn	. D		C2	0u4C	g38S 2			078l48lCC1:45	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078l48lCC1:45	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*07/24/21 12:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 131*		*07/24/21 12:45*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/24/21 12:45*	*1*

Lab Sample ID: LCS 570-166377/3
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
z nt Nht n	7f uf	7f u5C		g38S 2		C00	6h - C24
z moS oEesBiomoS naBdt n	C6h	C70uC		g38S 2		C01	6f - C21
z moS o9bn6	15h	162u6		g38S 2		C01	70 - C20
z moS oS naBdt n	f 7uC	f hu42		g38S 2		C0C	65 - C20
l drbot anandsBiomeEn	C57	C61u4		g38S 2		C02	6h - C22
l Biomobnt Nht n	CC5	CC2u4		g38S 2		f f	70 - C20
l BiomonaBdt n	66u0	66u71		g38S 2		C0C	66 - C24
l Biomo9bn6	C11	C12uC		g38S 2		C0C	67 - C2C
l BiomoS naBdt n	5CU6	50u2C		g38S 2		f 7	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	C01u4		g38S 2		C02	70 - C20
seP-C,2-DesBiomopmopnt n	CC2	CC4u6		g38S 2		C0C	70 - C24
DebmoS osBiomoS naBdt n	1C2	1C5u7		g38S 2		C0C	70 - C20
C,1-DebmoS onaBdt n	Cf 1	Cf CUh		g38S 2		C00	70 - C20
C,1-DesBiomobnt Nht n	C50	C47u2		g38S 2		f h	6h - C20
C,2-DesBiomobnt Nht n	C50	C47u0		g38S 2		f h	65 - C20
C,4-DesBiomobnt Nht n	C50	C4hu4		g38S 2		f f	64 - C20
DesBiomoEe9gomoS naBdt n	C14	C17u7		g38S 2		C02	57 - C2h
C,C-DesBiomonaBdt n	C0C	C00uf		g38S 2		C00	6f - C20
C,1-DesBiomonaBdt n	C0C	C04u7		g38S 2		C02	65 - C26
C,C-DesBiomonaBnt n	f f uC	CC5u7		g38S 2		CC7	64 - C25
C,1-DesBiompmopdt n	CC6	CC4u7		g38S 2		f f	6h - C21
C,C-De9gomonaBdt n	67u5	65u76	J	g38S 2		f 7	57 - C46
DeePopmopyi naBnm(Dlj v)	C04	C0f u5		g38S 2		C05	5h - C44
v aBdt oi	Chh	Cf 2u2		g38S 2		C02	6C - C22
v aByibnt Nht n	C0f	C0hu7		g38S 2		C00	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	C0huf		g38S 2		C04	67 - C20
4-v aByiaoignt n	C12	C12uh		g38S 2		C0C	6f - C20
MnaByint n l BiomeEn	h6uh	h1u4C		g38S 2		f 5	65 - C20
MnaByi anmabgayi naBnm	f 0uC	f 1uC5		g38S 2		C01	70 - C20
S ,p-Xyint n	1C7	1CCu7		g38S 2		f h	70 - C20
. dpBaBdint n	C2C	C1huf		g38S 2		f h	26 - C46
o-Xyint n	C0f	C05u6		g38S 2		f 7	6h - C20
cayrnt n	C06	C06u0		g38S 2		C00	70 - C20
anmeAS yi MnaByi v aBnm(TAMv)	C04	C07u2		g38S 2		C02	70 - C20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166377/3
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
anmaz gayi disoBoi (Tz A)	C51	C7huf		g38S 2		CCh	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	C67uh		g38S 2		f h	70 - C20
TnandsBiomonaBnt n	C70	C66ul		g38S 2		f h	70 - C20
Toignt n	f 4ul	f CU46		g38S 2		f 7	70 - C20
andt P-C,1-DesBiomonaBnt n	f f uC	f f ul1		g38S 2		C00	70 - C20
andt P-C,2-DesBiompropnt n	CC2	CC6u6		g38S 2		C02	66 - C41
C,1,4-TnasBiombnt Nht n	Ch6	Ch7uh		g38S 2		C0C	5C - C24
C,C,C-TnasBiomonaBdt n	C26	C4CU4		g38S 2		C04	67 - C25
C,C,1-TnasBiomonaBdt n	C26	C25ul		g38S 2		f f	6f - C2C
TnasBiomonaBnt n	C24	C22u6		g38S 2		f f	6f - C20
TnasBiom9gomoS naBdt n	C40	C46u6		g38S 2		C04	61 - C2f
C,C,1-TnasBiom-C,1,1-an9gomonaBd t n	Cf 1	Cf 4u0		g38S 2		C0C	70 - C20
C,1,4-TnaS naByibnt Nht n	C12	C1Cuf		g38S 2		f f	6h - C20
C,2,5-TnaS naByibnt Nht n	C12	C11u0		g38S 2		f f	6f - C20
Vet yi sBiomaEn	62uf	64uC7		g38S 2		C00	65 - C20

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 570-166377/4
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
znt Nht n	7f uf	7f ul2		g38S 2		f f	6h - C24	0	15
zmoS oEesBiomoS naBdt n	C6h	C6huU5		g38S 2		C0C	6f - C21	C	15
zmoS o9bnS	15h	164u5		g38S 2		C01	70 - C20	0	15
zmoS oS naBdt n	f 7uC	f 7u7f		g38S 2		C0C	65 - C20	C	15
l drbot anandsBiomaEn	C57	C5f u5		g38S 2		C0C	6h - C22	1	15
l Biombnt Nht n	CC5	CC2u6		g38S 2		f f	70 - C20	0	15
l BiomonaBdt n	66u0	67u4C		g38S 2		C01	66 - C24	C	15
l Biom9bnS	C11	C11uf		g38S 2		C0C	67 - C2C	0	15
l BiomoS naBdt n	5CU6	4f uhh		g38S 2		f 7	60 - C27	C	15
seP-C,1-DesBiomonaBnt n	f f uC	f f uf h		g38S 2		C0C	70 - C20	1	15
seP-C,2-DesBiompropnt n	CC2	CC4u6		g38S 2		C0C	70 - C24	0	15
DebmoS osBiomoS naBdt n	1C2	1C6ul		g38S 2		C0C	70 - C20	0	15
C,1-DebmoS onaBdt n	Cf 1	Cf 2uf		g38S 2		C0C	70 - C20	C	15
C,1-DesBiombnt Nht n	C50	C4f uC		g38S 2		f f	6h - C20	C	15
C,2-DesBiombnt Nht n	C50	C47u6		g38S 2		f h	65 - C20	0	15
C,4-DesBiombnt Nht n	C50	C4f u0		g38S 2		f f	64 - C20	0	15
DesBiomoE9gomoS naBdt n	C14	C14uf		g38S 2		C0C	57 - C2h	1	15
C,C-DesBiomonaBdt n	C0C	C00u7		g38S 2		C00	6f - C20	0	15
C,1-DesBiomonaBdt n	C0C	C02u7		g38S 2		C01	65 - C26	C	15
C,C-DesBiomonaBnt n	f f uC	CC4ul		g38S 2		CC5	64 - C25	C	15
C,1-DesBiompropdt n	CC6	CC5uC		g38S 2		C00	6h - C21	0	15
C,C-De9gomonaBdt n	67u5	64u2C	J	g38S 2		f 5	57 - C46	1	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166377/4
Matrix: Air
Analysis Batch: 166377

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DeePopmopyi naBnm(Dlj v)	C04	C0f u0		g38S 2		C04	5h - C44	0	15
v aBdt oi	Chh	Cf 2u0		g38S 2		C01	6C - C22	0	15
v aByibnt Nht n	C0f	C0f u2		g38S 2		C0C	70 - C20	C	15
v aByi-abgayi naBnm(v Tz v)	C04	C07u2		g38S 2		C02	67 - C20	C	15
4-v aByiaoignt n	C12	C14uh		g38S 2		C01	6f - C20	C	15
MnaByint n l BiomaEn	h6uh	hC.27		g38S 2		f 4	65 - C20	C	15
MnaByi anmabgayi naBnm	f 0uC	f C.44		g38S 2		C0C	70 - C20	C	15
S ,p-Xyint n	1C7	1C2u7		g38S 2		f h	70 - C20	C	15
. dpBaBdint n	C2C	C21uf		g38S 2		C0C	26 - C46	2	15
o-Xyint n	C0f	C05uh		g38S 2		f 7	6h - C20	0	15
cayrnt n	C06	C07u5		g38S 2		C0C	70 - C20	C	15
anmaAS yi MnaByi v aBnm(TAMv)	C04	C06u6		g38S 2		C01	70 - C20	C	15
anmaz gayi disoBoi (Tz A)	C51	C76uC		g38S 2		C06	65 - C21	1	15
C,C,1,1-TnandsBiomonaBdt n	C71	C6f u7		g38S 2		f f	70 - C20	C	15
TnandsBiomonaBnt n	C70	C6huh		g38S 2		C00	70 - C20	1	15
Toignt n	f 4ul	f 1uf 2		g38S 2		f f	70 - C20	1	15
andt P-C,1-DesBiomonaBnt n	f f uC	f hu5f		g38S 2		f f	70 - C20	C	15
andt P-C,2-DesBiomopmopnt n	CC2	CC6u2		g38S 2		C02	66 - C41	0	15
C,1,4-TnasBiomobnt Nht n	Ch6	Cf 0uh		g38S 2		C02	5C - C24	1	15
C,C,C-TnasBiomonaBdt n	C26	C27uf		g38S 2		C0C	67 - C25	1	15
C,C,1-TnasBiomonaBdt n	C26	C22u7		g38S 2		f h	6f - C2C	C	15
TnasBiomonaBnt n	C24	C24uC		g38S 2		C00	6f - C20	0	15
TnasBiomo9gomoS naBdt n	C40	C42u5		g38S 2		C01	61 - C2f	1	15
C,C,1-TnasBiomo-C,1,1-ans9gomonaBd t n	Cf 1	Cf 1uh		g38S 2		C0C	70 - C20	C	15
C,1,4-TnaS naByibnt Nht n	C12	C11u7		g38S 2		C00	6h - C20	C	15
C,2,5-TnaS naByibnt Nht n	C12	C12u5		g38S 2		C0C	6f - C20	C	15
Vet yi sBiomaEn	62uf	64u25		g38S 2		C0C	65 - C20	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 131*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 570-166571/7
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
z nt Nht n	. D		C6	0u50	g38S 2			078l58lC C0:27	C
z moS oEesBiomoS naBdt n	. D		24	0u74	g38S 2			078l58lC C0:27	C
z moS o9omS	. D		51	Cuh	g38S 2			078l58lC C0:27	C
z moS oS naBdt n	. D		Cf	0u54	g38S 2			078l58lC C0:27	C
l dmbot anandsBiomaEn	. D		2C	C.2	g38S 2			078l58lC C0:27	C
l Biomobnt Nht n	. D		12	0u60	g38S 2			078l58lC C0:27	C
l BiomonaBdt n	. D		C2	0u45	g38S 2			078l58lC C0:27	C
l Biomo9omS	. D		14	0u7h	g38S 2			078l58lC C0:27	C
l BiomoS naBdt n	. D		C0	0u22	g38S 2			078l58lC C0:27	C
seP-C,1-DesBiomonaBnt n	. D		10	0u54	g38S 2			078l58lC C0:27	C

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-166571/7
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
se-P-C,2-DesBiomopropnt n	. D		12	0uf h	g38S 2			078158lC C0:27	C
DebmoS osBiomoS naBdt n	. D		42	OU2	g38S 2			078158lC C0:27	C
C,1-DebmoS onaBdt n	. D		2h	OU2	g38S 2			078158lC C0:27	C
C,1-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078158lC C0:27	C
C,2-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078158lC C0:27	C
C,4-DesBiomobnt Nht n	. D		20	OU5	g38S 2			078158lC C0:27	C
DesBiomoE9gomoS naBdt n	. D		15	0uf h	g38S 2			078158lC C0:27	C
C,C-DesBiomonaBdt n	. D		10	0u41	g38S 2			078158lC C0:27	C
C,1-DesBiomonaBdt n	. D		10	0u5f	g38S 2			078158lC C0:27	C
C,C-DesBiomonaBnt n	. D		10	0u6f	g38S 2			078158lC C0:27	C
C,1-DesBiomopropdt n	. D		12	0u64	g38S 2			078158lC C0:27	C
C,C-De9gomonaBdt n	. D		C40	0uf f	g38S 2			078158lC C0:27	C
DeePopmopyi naBnm(Dlj v)	. D		1C	OU5	g38S 2			078158lC C0:27	C
v aBdt oi	. D		f 4	4uh	g38S 2			078158lC C0:27	C
v aByibnt Nht n	. D		11	OUC	g38S 2			078158lC C0:27	C
v aByi-abgayi naBnm(v Tz v)	. D		1C	OU1	g38S 2			078158lC C0:27	C
4-v aByiaoignt n	. D		15	OU1	g38S 2			078158lC C0:27	C
IPopmopdt oi	. D		C10	0uf 6	g38S 2			078158lC C0:27	C
MnaByint n l BiomeEn	4u7hC	J	C7	OUf	g38S 2			078158lC C0:27	C
MnaByi anmabgayi naBnm	. D		Ch	OU1	g38S 2			078158lC C0:27	C
S ,p-Xyint n	. D		11	1u7	g38S 2			078158lC C0:27	C
. dpBaBdint n	. D		16	2uC	g38S 2			078158lC C0:27	C
o-Xyint n	. D		11	0uh6	g38S 2			078158lC C0:27	C
caymt n	. D		1C	1u2	g38S 2			078158lC C0:27	C
anmaAS yi MnaByi v aBnm(TAMv)	. D		1C	OUh	g38S 2			078158lC C0:27	C
anmaz gayi disoBoi (Tz A)	. D		C5	OUC	g38S 2			078158lC C0:27	C
C,C,1,1-TnandsBiomonaBdt n	. D		24	OUC	g38S 2			078158lC C0:27	C
TnandsBiomonaBnt n	. D		24	OUC	g38S 2			078158lC C0:27	C
Toignt n	. D		Cf	0u50	g38S 2			078158lC C0:27	C
andt P-C,1-DesBiomonaBnt n	. D		10	0u50	g38S 2			078158lC C0:27	C
andt P-C,2-DesBiomopropnt n	. D		12	0uf 6	g38S 2			078158lC C0:27	C
C,1,4-TnasBiomobnt Nht n	. D		27	4uf	g38S 2			078158lC C0:27	C
C,C,C-TnasBiomonaBdt n	. D		17	0u7f	g38S 2			078158lC C0:27	C
C,C,1-TnasBiomonaBdt n	. D		17	0u76	g38S 2			078158lC C0:27	C
TnasBiomonaBnt n	. D		17	0uf 6	g38S 2			078158lC C0:27	C
TnasBiomo9gomoS naBdt n	. D		1h	OU2	g38S 2			078158lC C0:27	C
C,C,1-TnasBiomo-C,1,1-an9gomonaBdt n	. D		2h	1u2	g38S 2			078158lC C0:27	C
C,1,4-TnaS naByibnt Nht n	. D		15	OU6	g38S 2			078158lC C0:27	C
C,2,5-TnaS naByibnt Nht n	. D		15	OU0	g38S 2			078158lC C0:27	C
Vet yi sBiomeEn	. D		C2	0u4C	g38S 2			078158lC C0:27	C
Xyint nP, Toadi	. D		11	1u7	g38S 2			078158lC C0:27	C

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*07/25/21 10:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 131*		*07/25/21 10:37*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/25/21 10:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166571/4
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
z nt Nht n	7f uf	h4ul6		g38S 2		C06	6h - C24
z moS oEesBiomoS naBdt n	C6h	C76u5		g38S 2		C05	6f - C21
z moS o9bn6	15h	175u7		g38S 2		C07	70 - C20
z moS oS naBdt n	f 7uC	C02u7		g38S 2		C07	65 - C20
l dnbot anandsBiomaEn	C57	C67u6		g38S 2		C07	6h - C22
l Biomobnt Nht n	CC5	CCf uf		g38S 2		C04	70 - C20
l BiomonaBdt n	66u0	70u60		g38S 2		C07	66 - C24
l Biomo9bn6	C11	C20uC		g38S 2		C07	67 - C2C
l BiomoS naBdt n	5Qu6	52u67		g38S 2		C04	60 - C27
seP-C,1-DesBiomonaBnt n	f f uC	C07u6		g38S 2		C0f	70 - C20
seP-C,2-DesBiomopropnt n	CC2	C10u7		g38S 2		C06	70 - C24
DebmoS osBiomoS naBdt n	1C2	115uC		g38S 2		C06	70 - C20
C,1-DebmoS onaBdt n	Cf 1	101uf		g38S 2		C06	70 - C20
C,1-DesBiomobnt Nht n	C50	C56uC		g38S 2		C04	6h - C20
C,2-DesBiomobnt Nht n	C50	C56ul		g38S 2		C04	65 - C20
C,4-DesBiomobnt Nht n	C50	C55uC		g38S 2		C02	64 - C20
DesBiomoEe9gomoS naBdt n	C14	C25uC		g38S 2		C0f	57 - C2h
C,C-DesBiomonaBdt n	C0C	C06uf		g38S 2		C06	6f - C20
C,1-DesBiomonaBdt n	C0C	C0f u4		g38S 2		C0h	65 - C26
C,C-DesBiomonaBnt n	f f uC	C0huf		g38S 2		CC0	64 - C25
C,1-DesBiomopropdt n	CC6	C1Quh		g38S 2		C05	6h - C21
C,C-De9gomonaBdt n	67u5	7Qu40	J	g38S 2		C06	57 - C46
DeePopropyi naBnm(Dlj v)	C04	CC5uh		g38S 2		CCC	5h - C44
v aBdt oi	Chh	107u0		g38S 2		CC0	6C - C22
v aByibnt Nht n	C0f	CC5u0		g38S 2		C06	70 - C20
v aByi-abgayi naBnm(v Tz v)	C04	CC4u2		g38S 2		C0f	67 - C20
4-v aByiaoignt n	C12	C20u4		g38S 2		C06	6f - C20
MnaByint n l BiomaEn	h6uh	hQu16		g38S 2		f 4	65 - C20
MnaByi anmabgayi naBnm	f 0uC	f 6uCf		g38S 2		C07	70 - C20
S ,p-Xyint n	1C7	111u6		g38S 2		C02	70 - C20
. dpBaBdint n	C2C	C57uh		g38S 2		C10	26 - C46
o-Xyint n	C0f	CCQuh		g38S 2		C02	6h - C20
c ayrnt n	C06	CCQuf		g38S 2		C05	70 - C20
anmaAS yi MnaByi v aBnm(TAMv)	C04	CC2u2		g38S 2		C0h	70 - C20
anmaz gayi disoBoi (Tz A)	C51	C67uC		g38S 2		CC0	65 - C21
C,C,1,1-TnandsBiomonaBdt n	C71	C7f uC		g38S 2		C04	70 - C20
TnandsBiomonaBnt n	C70	C75u7		g38S 2		C04	70 - C20
Toignt n	f 4ul	f 7uCC		g38S 2		C02	70 - C20
andt P-C,1-DesBiomonaBnt n	f f uC	C05u4		g38S 2		C06	70 - C20
andt P-C,2-DesBiomopropnt n	CC2	C1Qul		g38S 2		C07	66 - C41
C,1,4-TnasBiomobnt Nht n	Ch6	110u4		g38S 2		CCf	5C - C24
C,C,C-TnasBiomonaBdt n	C26	C4hu0		g38S 2		C0h	67 - C25
C,C,1-TnasBiomonaBdt n	C26	C41ul		g38S 2		C04	6f - C2C
TnasBiomonaBnt n	C24	C40u6		g38S 2		C05	6f - C20
TnasBiomo9gomoS naBdt n	C40	C4f uf		g38S 2		C07	61 - C2f
C,C,1-TnasBiomo-C,1,1-ans9gomonaBd t n	Cf 1	105u0		g38S 2		C07	70 - C20
C,1,4-TnaS naByibnt Nht n	C12	C1hu7		g38S 2		C05	6h - C20
C,2,5-TnaS naByibnt Nht n	C12	C1f u5		g38S 2		C05	6f - C20

v gmo9t PI diPsent sn LLI

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-166571/4
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ve t yi s Biom aEn			62uf	6hu44		g38S 2		C07	65 - C20		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 131*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 570-166571/5
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
z nt Nht n			7f uf	h4u40		g38S 2		C06	6h - C24	0	15
z moS oEesBiomoS naBdt n			C6h	C76u2		g38S 2		C05	6f - C21	0	15
z moS o9bmS			15h	174u5		g38S 2		C06	70 - C20	0	15
z moS oS naBdt n			f 7uC	C02u6		g38S 2		C07	65 - C20	0	15
l drnbot anandsBiomaEn			C57	C66uh		g38S 2		C06	6h - C22	0	15
l Biomobnt Nht n			CC5	C10u7		g38S 2		C05	70 - C20	C	15
l BiomonaBdt n			66u0	7CU72		g38S 2		C0f	66 - C24	1	15
l Biomo9bmS			C11	C20uf		g38S 2		C07	67 - C2C	C	15
l BiomoS naBdt n			5CU6	52u4h		g38S 2		C04	60 - C27	0	15
seP-C,1-DesBiomonaBnt n			f f uC	C0huI		g38S 2		C0f	70 - C20	C	15
seP-C,2-DesBiomopmopnt n			CC2	C1CuC		g38S 2		C07	70 - C24	0	15
DebmoS osBiomoS naBdt n			1C2	115uf		g38S 2		C06	70 - C20	0	15
C,1-DebmoS onaBdt n			Cf 1	104u4		g38S 2		C06	70 - C20	C	15
C,1-DesBiomobnt Nht n			C50	C55u5		g38S 2		C02	6h - C20	0	15
C,2-DesBiomobnt Nht n			C50	C54u7		g38S 2		C02	65 - C20	C	15
C,4-DesBiomobnt Nht n			C50	C56u4		g38S 2		C04	64 - C20	C	15
DesBiomoEe9gomoS naBdt n			C14	C22u7		g38S 2		C0h	57 - C2h	C	15
C,C-DesBiomonaBdt n			C0C	C06uf		g38S 2		C06	6f - C20	0	15
C,1-DesBiomonaBdt n			C0C	C0huC		g38S 2		C07	65 - C26	C	15
C,C-DesBiomonaBnt n			f f uC	CC0uI		g38S 2		CCC	64 - C25	C	15
C,1-DesBiompmopdt n			CC6	C12u5		g38S 2		C07	6h - C21	C	15
C,C-De9gomonaBdt n			67u5	6f u5C	J	g38S 2		C02	57 - C46	2	15
DeePopmopyi naBnm(Dlj v)			C04	CC7u7		g38S 2		CC2	5h - C44	1	15
v aBdt oi			Chh	107u6		g38S 2		CC0	6C - C22	0	15
v aByibnt Nht n			C0f	CC5uI		g38S 2		C06	70 - C20	0	15
v aByi-abgayi naBnm(v Tz v)			C04	CC5uI		g38S 2		CC0	67 - C20	C	15
4-v aByiaoignt n			C12	C1f u7		g38S 2		C06	6f - C20	C	15
MnaByint n l BiomaEn			h6uh	h2u7C		g38S 2		f 6	65 - C20	2	15
MnaByi anmabgayi naBnm			f 0uC	f 6u47		g38S 2		C07	70 - C20	0	15
S ,p-Xyint n			1C7	112uI		g38S 2		C02	70 - C20	0	15
. dpBaBdint n			C2C	C46uC		g38S 2		CCC	26 - C46	h	15
o-Xyint n			C0f	CC1u0		g38S 2		C02	6h - C20	0	15
c ayrnt n			C06	CC1uI		g38S 2		C05	70 - C20	0	15
anmaAS yi MnaByi v aBnm(TAMv)			C04	CC2uh		g38S 2		C0f	70 - C20	0	15
anmaz gayi disoBoi (Tz A)			C51	C6f uh		g38S 2		CC1	65 - C21	1	15
C,C,1,1-TnandsBiomonaBdt n			C71	C7f uh		g38S 2		C05	70 - C20	0	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-166571/5
Matrix: Air
Analysis Batch: 166571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TnandsBiomonaBnt n			C70	C77u0		g38S 2		C04	70 - C20	C	15
Toignt n			f 4ul	f 7u51		g38S 2		C04	70 - C20	0	15
andt P-C,1-DesBiomonaBnt n			f f uC	C05u6		g38S 2		C07	70 - C20	0	15
andt P-C,2-DesBiomopmopnt n			CC2	C11u7		g38S 2		C0h	66 - C41	C	15
C,1,4-TmsBiomobnt Nht n			Ch6	10huf		g38S 2		CC1	5C - C24	5	15
C,C,C-TmsBiomonaBdt n			C26	C47u2		g38S 2		C0h	67 - C25	0	15
C,C,1-TmsBiomonaBdt n			C26	C41u2		g38S 2		C04	6f - C2C	0	15
TmsBiomonaBnt n			C24	C40uf		g38S 2		C05	6f - C20	0	15
TmsBiomo9gomoS naBdt n			C40	C4f u6		g38S 2		C07	61 - C2f	0	15
C,C,1-TmsBiomo-C,1,1-ans9gomonaBd t n			Cf 1	106uf		g38S 2		C0h	70 - C20	C	15
C,1,4-TmS naByibnt Nht n			C12	C17uC		g38S 2		C02	6h - C20	C	15
C,2,5-TmS naByibnt Nht n			C12	C1hu2		g38S 2		C04	6f - C20	C	15
Ve yi sBiomsEn			62uf	6huh7		g38S 2		C0h	65 - C20	C	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

GC/MS VOA

Analysis Batch: 166337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-C	BC5-53	Voadi8T 2	2en	h160B	
570-65145-1	BC5-C53	Voadi8T 2	2en	h160B	
570-65145-N	BC9-53	Voadi8T 2	2en	h160B	
570-65145-4	BC9-C53	Voadi8T 2	2en	h160B	
570-65145-5	BC-53	Voadi8T 2	2en	h160B	
570-65145-6	BC-C53	Voadi8T 2	2en	h160B	
570-65145-7	B1-53	Voadi8T 2	2en	h160B	
570-65145-h	B1-C53	Voadi8T 2	2en	h160B	
MB 570-C66NN787	MnaAoE Bidt k	Voadi8T 2	2en	h160B	
LI c 570-C66NN78N	Ldb l ot anoi c dS pin	Voadi8T 2	2en	h160B	
LI c D 570-C66NN784	Ldb l ot anoi c dS pin Dup	Voadi8T 2	2en	h160B	

Analysis Batch: 166339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-N6	BC6-C53	Voadi8T 2	2en	h160B	
570-65145-N7	BCC-53	Voadi8T 2	2en	h160B	
570-65145-Nh	BCC-C53	Voadi8T 2	2en	h160B	
570-65145-N9	BC1-53	Voadi8T 2	2en	h160B	
570-65145-40	BC1-C53	Voadi8T 2	2en	h160B	
MB 570-C66NN987	MnaAoE Bidt k	Voadi8T 2	2en	h160B	
LI c 570-C66NN984	Ldb l ot anoi c dS pin	Voadi8T 2	2en	h160B	
LI c D 570-C66NN985	Ldb l ot anoi c dS pin Dup	Voadi8T 2	2en	h160B	

Analysis Batch: 166372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-C9	B6-53	Voadi8T 2	2en	h160B	
570-65145-10	B6-C53	Voadi8T 2	2en	h160B	
570-65145-1C	B5-53	Voadi8T 2	2en	h160B	
570-65145-11	B5-C53	Voadi8T 2	2en	h160B	
570-65145-14	B15-C53	Voadi8T 2	2en	h160B	
570-65145-15	B16-53	Voadi8T 2	2en	h160B	
570-65145-16	B16-C53	Voadi8T 2	2en	h160B	
570-65145-17	B17-53	Voadi8T 2	2en	h160B	
570-65145-1h	B17-C53	Voadi8T 2	2en	h160B	
570-65145-19	B14-53	Voadi8T 2	2en	h160B	
570-65145-N0	B14-C53	Voadi8T 2	2en	h160B	
570-65145-NC	BCh-53	Voadi8T 2	2en	h160B	
570-65145-N1	BCh-C53	Voadi8T 2	2en	h160B	
570-65145-N4	BC7-C53	Voadi8T 2	2en	h160B	
MB 570-C66N7187	MnaAoE Bidt k	Voadi8T 2	2en	h160B	
LI c 570-C66N7184	Ldb l ot anoi c dS pin	Voadi8T 2	2en	h160B	
LI c D 570-C66N7185	Ldb l ot anoi c dS pin Dup	Voadi8T 2	2en	h160B	

Analysis Batch: 166374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-NN	BC7-53	Voadi8T 2	2en	h160B	
MB 570-C66N7486	MnaAoE Bidt k	Voadi8T 2	2en	h160B	
LI c 570-C66N748N	Ldb l ot anoi c dS pin	Voadi8T 2	2en	h160B	
LI c D 570-C66N7484	Ldb l ot anoi c dS pin Dup	Voadi8T 2	2en	h160B	

GC/MS VOA

Analysis Batch: 166377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-9	B4-53	Voadi8T 2	2 en	h160B	
570-65145-C0	B4-C53	Voadi8T 2	2 en	h160B	
570-65145-CC	B7-53	Voadi8T 2	2 en	h160B	
570-65145-C1	B7-C53	Voadi8T 2	2 en	h160B	
570-65145-CN	Bh-53	Voadi8T 2	2 en	h160B	
570-65145-C4	Bh-C53	Voadi8T 2	2 en	h160B	
570-65145-C5	BC0-53	Voadi8T 2	2 en	h160B	
570-65145-C6	BC0-C53	Voadi8T 2	2 en	h160B	
570-65145-C7	B9-53	Voadi8T 2	2 en	h160B	
570-65145-Ch	B9-C53	Voadi8T 2	2 en	h160B	
MB 570-C66N778 6	MnaAoE Bidt k	Voadi8T 2	2 en	h160B	
LI c 570-C66N778N	Ldb l ot amoi c dS pin	Voadi8T 2	2 en	h160B	
LI c D 570-C66N7784	Ldb l ot amoi c dS pin Dup	Voadi8T 2	2 en	h160B	

Analysis Batch: 166571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-65145-1N	B15-53	Voadi8T 2	2 en	h160B	
570-65145-N5	BC6-53	Voadi8T 2	2 en	h160B	
MB 570-C6657C87	MnaAoE Bidt k	Voadi8T 2	2 en	h160B	
LI c 570-C6657C84	Ldb l ot amoi c dS pin	Voadi8T 2	2 en	h160B	
LI c D 570-C6657C85	Ldb l ot amoi c dS pin Dup	Voadi8T 2	2 en	h160B	

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65245-1

Client Sample ID: B13-35
Date Collected: 7V/66/61 13:32
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-1
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 15:58	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B13-135
Date Collected: 7V/66/61 10:17
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-6
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 16:42	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B12-35
Date Collected: 7V/66/61 10:66
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 17:27	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B12-135
Date Collected: 7V/66/61 10:TV
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-4
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 18:12	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B1-35
Date Collected: 7V/6T/61 7V:36
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-3
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 18:56	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B1-135
Date Collected: 7V/6T/61 7y:76
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-0
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 19:40	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B6-35
Date Collected: 7V/6T/61 7y:13
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-V
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 20:24	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B6-135
Date Collected: 7V/6T/61 7y:6T
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-y
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166337	07/24/21 21:08	USQD	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: B4-35
Date Collected: 7V/6T/61 7y:T1
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-2
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/24/21 21:23	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B4-135
Date Collected: 7V/6T/61 7y:47
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-17
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/24/21 22:12	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: BV-35
Date Collected: 7V/6T/61 7y:37
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-11
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/24/21 23:01	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: BV-135
Date Collected: 7V/6T/61 7y:3V
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-16
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/24/21 23:49	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: By-35
Date Collected: 7V/6T/61 72:7y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-1T
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 00:38	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: By-135
Date Collected: 7V/6T/61 72:10
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-14
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 01:26	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B17-35
Date Collected: 7V/6T/61 72:60
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-13
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 02:15	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B17-135
Date Collected: 7V/6T/61 72:T3
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-10
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 03:22	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B2-35
Date Collected: 7V/6T/61 72:43
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-1V
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 04:11	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B2-135
Date Collected: 7V/6T/61 72:33
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-1y
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166377	07/25/21 05:00	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B0-35
Date Collected: 7V/6T/61 17:17
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-12
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/24/21 19:20	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B0-135
Date Collected: 7V/6T/61 17:1y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-67
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/24/21 20:12	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B3-35
Date Collected: 7V/6T/61 17:63
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-61
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/24/21 21:04	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B3-135
Date Collected: 7V/6T/61 17:T4
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-66
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/24/21 21:56	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B63-35
Date Collected: 7V/6T/61 11:72
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-6T
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166571	07/25/21 11:26	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B63-135
Date Collected: 7V/6T/61 11:1y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-64
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/24/21 23:40	KA4W	ECL 2
	Instrument ID: GCMSNN									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65245-1

Client Sample ID: B60-35
Date Collected: 7V/6T/61 11:T7
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-63
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 00:32	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B60-135
Date Collected: 7V/6T/61 11:46
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-60
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 01:24	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B6V-35
Date Collected: 7V/6T/61 11:34
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-6V
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 02:17	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B6V-135
Date Collected: 7V/6T/61 16:74
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-6y
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 03:09	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B64-35
Date Collected: 7V/6T/61 16:63
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-62
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 04:01	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B64-135
Date Collected: 7V/6T/61 16:T3
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T7
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 04:53	KA4W	ECL 2
	Instrument ID: GCMSNN									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65245-1

Client Sample ID: B1y-35
Date Collected: 7V/6T/61 16:4y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T1
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 05:45	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B1y-135
Date Collected: 7V/6T/61 16:30
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T6
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 06:37	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B1V-35
Date Collected: 7V/6T/61 1T:7y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-TT
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1.311	400 mL	400 mL	166374	07/26/21 17:53	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B1V-135
Date Collected: 7V/6T/61 1T:1y
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T4
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166372	07/25/21 08:21	KA4W	ECL 2
	Instrument ID: GCMSNN									

Client Sample ID: B10-35
Date Collected: 7V/6T/61 1T:T7
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T3
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166571	07/25/21 12:14	KA4W	ECL 2
	Instrument ID: GCMSII									

Client Sample ID: B10-135
Date Collected: 7V/6T/61 1T:47
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T0
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166339	07/24/21 19:38	USQD	ECL 2
	Instrument ID: GCMSHH									

Lab Chronicle

Client: Citadel Environmental Services Inc
Project/Site: East 118th Street

Job ID: 570-65245-1

Client Sample ID: B11-35
Date Collected: 7V/6T/61 1T:3V
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-TV
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166339	07/24/21 20:25	USQD	ECL 2
	Instrument ID: GCMSHH									

Client Sample ID: B11-135
Date Collected: 7V/6T/61 14:17
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-Ty
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166339	07/24/21 21:28	USQD	ECL 2
	Instrument ID: GCMSHH									

Client Sample ID: B16-35
Date Collected: 7V/6T/61 14:61
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-T2
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166339	07/24/21 22:16	USQD	ECL 2
	Instrument ID: GCMSHH									

Client Sample ID: B16-135
Date Collected: 7V/6T/61 14:T1
Date Received: 7V/6T/61 1y:73

Lab Sample ID: 3V7-03643-47
Matrix: Air

urep Pspe	Batch Pspe	Batch Method	RFn	Dil 9actor	Initial AmoFnt	9inal AmoFnt	Batch 8 Fmber	urepared or AnalsNed	Analszt	Lab
Total/NA	Analysis	8260B		1	400 mL	400 mL	166339	07/24/21 23:04	USQD	ECL 2
	Instrument ID: GCMSHH									

Laborators Referencez:

ECL = Eurofins Calscience LLC, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Citadel Environmental Services Inc
j ro/ect8Site: East PPhtA Street

Job ID: 570-65215-P

Laboratory: Eurofins Calscience LLC

f ll accreditations8certiyications Aeld b. tAis laborator. are listedN p ot all accreditations8certiyications are akklicable to tAis rekortN

Authority	Program	Identification Number	Expiration Date
f rQansas DE9	State	hh-0P6P	PP-PL-2P
Caliyornia	gos f nueles Co3nt. Sanitation Districts	P0P0L	0L-M0-2P
Caliyornia	SCf 9 4 D gf j	P7gf 0LPL	PP-M0-2P
Caliyornia	State	2L11	0L-M0-2P
G3am	State	2P-00MR	06-22-22
p evada	State	Cf 00PPP	07-MP-2P
Oreuon	p Egf j	Cf M0000P	0P-M0-22
USDf	US Federal j rourams	j MM0-20-000Mf	02-P0-2M
WasAinuton	State	CLP6-Ph	P0-PP-2P

E3royins Calscience ggC

Method Summary

Method	Method Description	Protocol	Laboratory
h160B	Voidaein Ongdt es l oS pout EP (Gl 8Mc)	c2 h46	vl L 1
5030I	l oiinsaeot 8j mp TnEidmBdg (j &T)	c2 h46	vl L

Protocol References:

c2 h46 = "TnPaMnaWoEP Fomv r diudaet g coieE 2 dPan, j WyPesdi8 WnS esdi MnaWoEP", TWeEn v Eeeot , Nor nS bnmC9h6 At E laP UpEdanP.

Laboratory References:

vl L = v umofet PI diPsent sn LLI , 7440 Let soit 2 dy, GdmEnt Gmor n, l A 91h4C, Tv L (7C4)h95-5494

vl L 1 = v umofet PI diPsent sn LLI LdS pPot , 7445 LdS pPot Ar n, GdmEnt Gmor n, l A 91h4C, Tv L (7C4)h95-5494

Sample Summary

Client: Citadel Environmental Services Inc
j ro/ect8Site: East PPhtB Street

Job ID: 570-65145-P

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-65145-P	3P5-5V	Air	078l18lP P5:52	078l98lP Ph:05
570-65145-1	3P5-P5V	Air	078l18lP P6:P0	078l98lP Ph:05
570-65145-9	3P2-5V	Air	078l18lP P6:11	078l98lP Ph:05
570-65145-4	3P2-P5V	Air	078l18lP P6:97	078l98lP Ph:05
570-65145-5	3P-5V	Air	078l98lP 07:51	078l98lP Ph:05
570-65145-6	3P-P5V	Air	078l98lP 0h:01	078l98lP Ph:05
570-65145-7	31-5V	Air	078l98lP 0h:P5	078l98lP Ph:05
570-65145-h	31-P5V	Air	078l98lP 0h:19	078l98lP Ph:05
570-65145-2	34-5V	Air	078l98lP 0h:9P	078l98lP Ph:05
570-65145-P0	34-P5V	Air	078l98lP 0h:40	078l98lP Ph:05
570-65145-PP	37-5V	Air	078l98lP 0h:50	078l98lP Ph:05
570-65145-P1	37-P5V	Air	078l98lP 0h:57	078l98lP Ph:05
570-65145-P9	3h-5V	Air	078l98lP 02:0h	078l98lP Ph:05
570-65145-P4	3h-P5V	Air	078l98lP 02:P6	078l98lP Ph:05
570-65145-P5	3P0-5V	Air	078l98lP 02:16	078l98lP Ph:05
570-65145-P6	3P0-P5V	Air	078l98lP 02:95	078l98lP Ph:05
570-65145-P7	32-5V	Air	078l98lP 02:45	078l98lP Ph:05
570-65145-Ph	32-P5V	Air	078l98lP 02:55	078l98lP Ph:05
570-65145-P2	36-5V	Air	078l98lP P0:P0	078l98lP Ph:05
570-65145-10	36-P5V	Air	078l98lP P0:Ph	078l98lP Ph:05
570-65145-1P	35-5V	Air	078l98lP P0:15	078l98lP Ph:05
570-65145-11	35-P5V	Air	078l98lP P0:94	078l98lP Ph:05
570-65145-19	315-5V	Air	078l98lP PP:02	078l98lP Ph:05
570-65145-14	315-P5V	Air	078l98lP PP:Ph	078l98lP Ph:05
570-65145-15	316-5V	Air	078l98lP PP:90	078l98lP Ph:05
570-65145-16	316-P5V	Air	078l98lP PP:41	078l98lP Ph:05
570-65145-17	317-5V	Air	078l98lP PP:54	078l98lP Ph:05
570-65145-1h	317-P5V	Air	078l98lP P1:04	078l98lP Ph:05
570-65145-12	314-5V	Air	078l98lP P1:15	078l98lP Ph:05
570-65145-90	314-P5V	Air	078l98lP P1:95	078l98lP Ph:05
570-65145-9P	3Ph-5V	Air	078l98lP P1:4h	078l98lP Ph:05
570-65145-91	3Ph-P5V	Air	078l98lP P1:56	078l98lP Ph:05
570-65145-99	3P7-5V	Air	078l98lP P9:0h	078l98lP Ph:05
570-65145-94	3P7-P5V	Air	078l98lP P9:Ph	078l98lP Ph:05
570-65145-95	3P6-5V	Air	078l98lP P9:90	078l98lP Ph:05
570-65145-96	3P6-P5V	Air	078l98lP P9:40	078l98lP Ph:05
570-65145-97	3PP-5V	Air	078l98lP P9:57	078l98lP Ph:05
570-65145-9h	3PP-P5V	Air	078l98lP P4:P0	078l98lP Ph:05
570-65145-92	3P1-5V	Air	078l98lP P4:1P	078l98lP Ph:05
570-65145-40	3P1-P5V	Air	078l98lP P4:9P	078l98lP Ph:05

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570-65245 Chain of Custody

CHAIN OF CUSTODY RECORD

7-23-21

1 OF 2

LABORATORY CLIENT: Citadel EHS	
ADDRESS: 1725 Victory Blvd.	East 118th Street
CITY: Glendale STATE: CA ZIP: 91201	PO NO: 0350.1007.0
PROJECT CONTACT: Scott Grasse	SAMPLER(S). (PRINT): Tim Lambert
TEL: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com	

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD')
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF | GLOBAL ID: | LOG CODE:

SPECIAL INSTRUCTIONS.
Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6				
1	B15-5V	7-22-21	1559	Vapor	1x Tedlar									X											
2	B15-15V	"	1610	"	"									X											
3	B19-5V	"	1622	"	"									X											
4	B19-15V	"	1637	"	"									X											
5	B1-5V	7-23-21	0752	"	"									X											
6	B1-15V	"	0802	"	"									X											
7	B2-5V	"	0815	"	"									X											
8	B2-15V	"	0823	"	"									X											
9	B4-5V	"	0831	"	"									X											
10	B4-15V	"	0840	"	"									X											

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) [illegible] EC	Date 7/23/21	Time 1506
Relinquished by: (Signature) [illegible]	Received by: (Signature/Affiliation) Manbel Eri	Date 7/23/21	Time: 1805
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time.

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7/30/2021

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WO # / LAB USE ONLY

DATE: 7-23-21

PAGE: 2 OF 4

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD")

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218 6
11	B7-5V	7-23-21	0850	Vapor	1xTedlar									X								
12	B7-15V		0857											X								
13	B8-5V		0908											X								
14	B8-15V		0916											X								
15	B10-5V		0926											X								
16	B10-15V		0935											X								
17	B9-5V		0945											X								
18	B9-15V		0955											X								
19	B6-5V		1010											X								
20	B6-15V		1018											X								

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) Rudy M EC	Date: 7/23/21	Time: 1506
Relinquished by: (Signature) Rudy M	Received by: (Signature/Affiliation) Mambelen	Date: 7/23/21	Time: 1805
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

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WO # / LAB USE ONLY

DATE: 7-23-21

PAGE: 3 OF 4

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL: 818-246-2707 E-MAIL: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

PO NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S). (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
21	B5-5V	7-23-21	1025	Vapor	1xTedlar									X								
22	B5-15V	"	1034	"	"									X								
23	B25-5V	"	1109	"	"									X								
24	B25-15V	"	1118	"	"									X								
25	B26-5V	"	1130	"	"									X								
26	B26-15V	"	1142	"	"									X								
27	B27-5V	"	1154	"	"									X								
28	B27-15V	"	1204	"	"									X								
29	B24-5V	"	1225	"	"									X								
30	B24-15V	"	1235	"	"									X								

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) Rudy M EC	Date: 7/23/21	Time: 1506
Relinquished by: (Signature) Rudy M	Received by: (Signature/Affiliation) Markeler	Date: 7/23/21	Time: 1805
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 7-23-21

PAGE: 4 OF 4

LABORATORY CLIENT: Citadel EHS

ADDRESS: 1725 Victory Blvd.

CITY: Glendale STATE: CA ZIP: 91201

TEL.: 818-246-2707 E-MAIL.: sgrasse@CitadelEHS.com

CLIENT PROJECT NAME / NUMBER: East 118th Street

P.O. NO: 0350.1007.0

PROJECT CONTACT: Scott Grasse

SAMPLER(S) (PRINT): Tim Lambert

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report MDLs

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___ Full Range	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
31	B18-5V	7-23-21	~~1248~~	Vapor	1x Tedlar									X								
32	B18-15V	"	1256	"	"									X								
33	B17-5V	"	1308	"	"									X								
34	B17-15V	"	1318	"	"									X								
35	B16-5V	"	1330	"	"									X								
36	B16-15V	"	1340	"	"									X								
37	B11-5V	"	1357	"	"									X								
38	B11-15V	"	1410	"	"									X								
39	B12-5V	"	1421	"	"									X								
40	B12-15V	"	1431	"	"									X								

Relinquished by: (Signature) Tim Lambert	Received by: (Signature/Affiliation) Rudy N / EC	Date: 7/23/21	Time: 1506
Relinquished by: (Signature) Rudy N	Received by: (Signature/Affiliation) Manbeleon	Date: 7/23/21	Time: 1805
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time

06/02/14 Revision

Login Sample Receipt Checklist

Client: Citadel Environmental Services Inc

Job Number: 570-65215-/

Login Number: 65245
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience LLC

Question	Answer	Comment
y adioactivitw' asnh ckec<ed or is =Ag bac<. round as measured bwa survew meterT	NAR	
, ke coolerhs custodwsealf ipOresentf is intactT	, rue	
SamOle custodwsealsf ipOresentf are intactT	, rue	
, ke cooler or samOles do not aOOear to kave been comOromised or tamOered ' itkT	, rue	
SamOles ' ere received on iceT	False	, kermal Oreservation not re?uiredT
Cooler , emOerature is acceOtableT	, rue	
Cooler , emOerature is recordedT	, rue	
CHC is OresentT	, rue	
CHC is pilled out in in< and le. ibleT	, rue	
CHC is pilled out ' itk all Oertinent inpormationT	, rue	
Is tke Field SamOlerhs name Oresent on CHC(	, rue	
, kere are no discreOancies bet' een tke containers received and tke CHCT	, rue	
SamOles are received ' itkin x oldin. , ime)ePcludin. tests ' itk immediate x , sV	, rue	
SamOle containers kave le. ible labelsT	, rue	
Containers are not bro<en or lea<in. T	, rue	
SamOle collection dateAimes are OrovidedT	, rue	
ROOroOriate samOle containers are usedT	, rue	
SamOle bottles are comOletelwpilledT	, rue	
SamOle qreservation MeripiedT	, rue	
, kere is suppicient volTpor all re?uested analwsesf inclTanwre?uested DSAD Sz s	, rue	
Containers re?uirin. 4ero keadsOace kave no keadsOace or bubble is =6mm)/ A1"VT	, rue	
DultiOkasic samOles are not OresentT	, rue	
SamOles do not re?uire sOittin. or comOositin. T	, rue	
y esidual Cklorine Ckec<edT	NAR	

Appendix G
Hydrology Study

Preliminary Hydrology Study

for

Willowbrook Wellness Center

1667 East 118th Street

Los Angeles, CA 90059

Case #: ESTU2023000592

CUP#: RPPL2023004092

KPFF Job #: 2100176

November 2024

PREPARED BY:

KPFF CONSULTING ENGINEERS

700 S. Flower St., Suite 2100

Los Angeles, California 90017

(213) 418-0201

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I. HYDROLOGY STUDY

A. Introduction
B. Methodology
C. FEMA Floodplain Identification & Considerations
D. Existing Conditions Tributary & On-Site Drainage Areas Discussion
E. Existing Hydrology Calculations & Summary
F. Proposed Condition Tributary & On-Site Drainage Areas Discussion
G. Proposed Conditions Hydrology Calculations & Summary
H. Low Impact Development Calculations & Mitigation
I. Summary & Conclusion

II. EXHIBITS

Exhibit A: Existing Storm Drain System

Exhibit B: FEMA Floodplain Map

Exhibit C: Los Angeles County Soil/Rainfall/DPA Zone Map

Exhibit D: Existing Hydrologic Conditions Study Map

Exhibit E: Proposed Hydrologic Conditions Study Map

Exhibit F: Low Impact Development Study Map

III. ATTACHMENTS

Attachment 1: Existing Condition 25 Year Hydrocalc Calculations

Attachment 2: Proposed Condition 25 Year Hydrocalc Calculations

Attachment 3: Proposed Low Impact Development Calculations

Attachment 4: Existing vs Proposed Condition Comparison

Attachment 5: Low Impact Development BMP Information

Attachment 6: Drywell Calculations

Attachment 7: Geotechnical Report

Hydrology Study

A. Introduction

1.1 Purpose & Scope

The following Hydrology Study has been prepared for the development of the Willowbrook Wellness Center site located in an unincorporate area within the County of Los Angeles, to satisfy the Los Angeles County Department of Public Works Hydrology requirements.

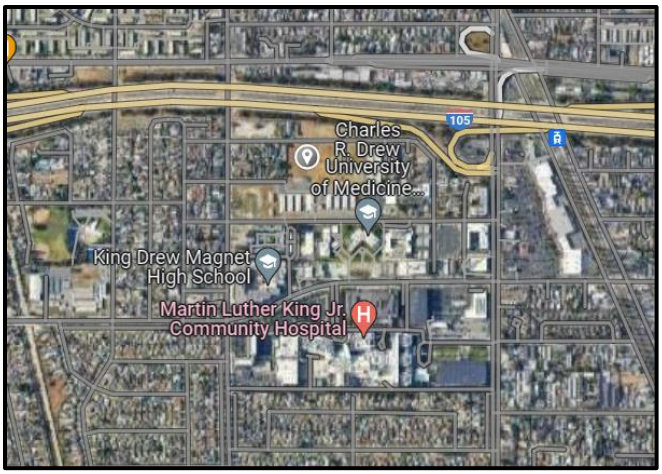
The scope of the study includes the following:

- Identification of existing conditions on-site drainage areas and calculation of peak flow rates and runoff volumes for these areas.
- Identification of proposed on-site hydrologic conditions & site/drainage plan.
- Identification of floodplain(s) impacting the site.
- Identification of Water Quality/SUSMP Best Management Practices (BMPs) proposed for the project.
- Summary of Findings & Conclusion

1.2 Project Overview

Existing Condition

The proposed site is located within the Willowbrook neighborhood in the County of Los Angeles. The proposed site encompasses 12.8-acres and is comprised of two sites which are divided by East 117th Street. The first site is bounded by East 117th Street to the north, East 118th Street to the south, Compton Avenue to the west and a parking structure and asphalt parking lot to the east. Site 1 is also bisected on the west side by East 117th Place. Site 2 is located north of East 117th Street and is bounded by residential neighborhood to the west, East 117th Street to the south, and Interstate 105 to the north and east. Refer to the project's vicinity map and location map shown on the next page.



Vicinity Map



Location Map

Site 1 is currently developed with an abandoned elementary school (formerly Lincoln Elementary School) owned by Compton Unified School District. It is currently developed with ten buildings, including 2 portable buildings. Site 1 is primarily made up of hardscape and two asphalt surface parking lots found on the southeast and northeast corner of the site. One parking area can be accessed from East 118th Street and the second parking area can be accessed East 117th Street. The lawn areas are found on the southwest and northeast side of the site. Site 2 appears to be undeveloped, vacant, and is primarily made up of landscape and dirt areas.

Proposed Condition

In the proposed condition, there are seven types of programs that include the construction of 12 buildings. According to the program provided by Frederick Fisher and Partners dated April 18th, 2022, these 12 buildings include the following:

- 4 Affordable Housing Buildings - 4-stories (A1, A2, A3, A4)
- 1 Affordable Senior Housing Building - 4-stories (A5)
- 3 Market Rate Housing Buildings - 5-stories (U1, U2, U4)
- 1 Market Rate Housing & CDU Focused Commercial Building - 5-stories (U3)
- 1 Athletics Building - 2-stories (U6)
- 1 Office & CSUSD Joint Us/Pipeline Building - 8-stories (U7)
- 1 Parking Structure - 8-stories (U8)

1.3 Reference

- Los Angeles County Department of Public Works Hydrology Manual, January 2006.
- Los Angeles County Department of Public Works Department 2014 Low Impact Development Standard Manual

B. Methodology

1.1 General Methodology

The requirements and recommendations found in the Los Angeles County Hydrology Manual (January 2006) provided by the Los Angeles County Department of Public Works were used as the basis for the methodology and calculations found in this study. Calculations were performed for the 25-year, 24-hour storm using HydroCalc software provided by the County.

1.2 Source of Topography

For the existing condition on-site area, elevations were generated from a field survey provided by KPFF Consulting Engineers. For the developed conditions on-site areas, the general topography was designed by KPFF Consulting Engineers.

1.3 Soil Classifications & Rainfall Intensity Values

The project site is located on the Los Angeles County Hydrologic Map 1-H1.9. The map shows the site to be in Soil Classification Area 06, with a 50-year 24-hour isohyet of 5.9 inches. A copy of Map 1-H1.9 is included in Exhibit C.

For the purposes of this study, “non-burned” soils conditions have been considered for on-site areas to calculate peak flow rate calculations. Since the site and surrounding properties are developed, a Fire Factor of 0.00 has been applied per the County Hydrology Manual requirements for Time of Concentration (TC) calculations.

1.4 Time of Concentration (TC) Calculations

Time of concentration for both existing and proposed conditions were calculated using the Hydrocalc software provided by the County. The site was broken up into subareas. Refer to Exhibit D & E for existing and proposed subarea and Attachment 1 & 2 for existing and proposed 25-year 24- hour Hydrocalc results.

C. FEMA Floodplain Identification & Considerations

Per FEMA Map No. 06037C1815F (Effective Date - September 26, 2008), the project site is currently impacted by a Zone “X” floodplain. Zone “X” is identified by FEMA as areas of 0.2% annual chance of flood; areas of 1% annual chance of flood with depths of less than 1 foot or with drainage areas less than 1 square mile; an areas protected by levees from 1% annual chance of flood. Refer to Exhibit B for the surrounding area FIRM map.

This site is not within the County adopted floodway.

D. Existing Conditions Tributary & On-Site Drainage Areas Discussion

1.1 Overview Of Existing Conditions On-Site Areas

Based on preliminary topographic survey information prepared by KPFF Consulting Engineers, it appears the two existing sites can be divided into 4

drainage management areas (DMA's). See Exhibit D for existing drainage management areas and impervious and previous designations. DMA 1 encompasses approximately 27% of the overall site which includes the southwest corner of Site 1 that generally flows to the south to East 118th Street. The runoff flows east to an existing catch basin along East 118th Street. DMA 2 includes the south portion of Site 1 which contains runoff from approximately 51% of the overall site and appears to sheet flow toward the southeast corner of the site. The stormwater flows over the sidewalk or through an existing curb face on East 118th Street. The runoff flows east to an existing catch basin along East 118th Street. DMA 3 contains approximately 12% of the overall site runoff which sheet flows over the public sidewalk to the northeast to East 117th Street and flows southeast to an existing catch basin on Holmes Avenue. DMA 4 includes the north portion of our site. DMA 4 encompasses approximately 10% of the overall site which appears to pond at different locations within the vacant lot. The site is naturally lower on the north side, but the lowest point is at the southeast and appears to overflow to East 117th Steet. The runoff flows southeast to an existing catch basin on Holmes Avenue.

E. Existing Hydrology Calculations & Summary

1.1 Existing Conditions Drainage Management Areas – Time of Concentration (TC) Calculations

Exhibit D Existing Hydrologic Condition Study Map illustrates the existing condition of the site. The slopes and impervious percentage were calculated based on the field survey and existing conditions on-site. The percent impervious was calculated by dividing the drainage management impervious area by its respective total drainage management area.

The pre-construction hydrology calculations for the 25-year 24-hour storm event were analyzed using the Los Angeles County Hydrocalc software, refer to Attachment 1 for inputs and output for the existing condition 25-year 24-hour results or see summary below.

Table 1 – Existing Conditions Input Data 25-year 24-hour Events

Name	Area (acres)	Flow Length (ft)	Slope	Rainfall Depth (in)	Percent Impervious	Soil Type	Burn Factor	Bulk Factor
DMA 1	3.40	313	0.2 %	5.9	28.6 %	6	0	0
DMA 2	6.56	570	0.4 %	5.9	58.0 %	6	0	0
DMA 3	1.54	100	1.2 %	5.9	11.3 %	6	0	0
DMA 4	1.30	368	0.3 %	5.9	0.01 %	6	0	0
Total Site	**12.80**	**-**	**-**	**-**	**38.68%**	**-**	**-**	**-**

****See Attachment 1 for HydroCalc Inputs and Outputs****

Table 2 – Existing Conditions Calculation Summary

Name	TC (min)	Q25 (cfs)	V25 (acre-ft)
DMA 1	8	6.89	0.58
DMA 2	10	12.30	1.70
Total 118th St.	**-**	**19.19**	**2.28**
DMA 3	5	3.98	0.18
DMA 4	9	2.35	0.11
Total 117th St.	**-**	**6.33**	**0.29**

****See Attachment 1 for HydroCalc Inputs and Outputs****

F. Proposed Condition Tributary Area & On-Site Drainage Discussion

1.1 Designated Project Requirements

According to the County of Los Angeles Department of Public Works Low Impact Development Standards Manual, this project is classified as a Designated Project as it falls within the following categories shown below.

- All development projects equal to one acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area.
- Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.
- Redevelopment projects, which are developments that result in creation or addition or replacement of either: (1) 5,000 square feet or more of impervious surface on a site that was previously developed as described in the above bullets.

1.2 Overview of Proposed Conditions On-Site Areas

In the proposed condition, the site will primarily drain from north to south. See Exhibit E for the proposed drainage management areas (DMA's) and impervious and previous designations. DMA 1 encompasses the southwest corner of Site 1, which is approximately 27% of the overall site. The stormwater from DMA 1 will be collected via roof drains and area drains then routed southeast towards the proposed stormwater treatment feature located between Building A1 and U1. DMA 2 encompasses approximately 51% of the overall site and includes the southeast corner of Site 1. DMA 2 will be sloped towards the southeast corner of Site 1, towards the proposed stormwater treatment feature located along the proposed field. DMA 3 encompasses approximately 12% of the overall site and includes the northeast corner of Site 1. DMA 3 will flow towards the northeast towards the proposed stormwater treatment feature located adjacent to Building U6. DMA 4 encompasses approximately 10% of the overall site which includes the entire Site 2 area north of East 117th Street. DMA 4 will flow towards the east corner of Site 2 towards the proposed stormwater treatment feature. The proposed drainage management areas are similar to the existing drainage management areas.

G. Proposed Conditions Hydrology Calculations & Summary

1.1 Proposed Conditions Drainage Management Areas – Time of Concentration (TC) Calculations

Exhibit E Proposed Hydrologic Condition Study Map illustrates the proposed condition of the site. The slopes and impervious percentage were calculated based on the general topography that was designed by KPFF Consulting Engineers and the proposed program provided by Frederick Fisher and Partners. The percent impervious was calculated by dividing the drainage management impervious area by its respective total drainage management area.

The post-construction hydrology calculations for the 25-year 24-hour storm event were analyzed using the Los Angeles County Hydrocalc software, refer to

Attachment 2 for inputs and outputs for the proposed condition 25-year 24-hour results or see summary below.

Table 3 – Proposed Conditions Input Data 25-year 24-hour Events

Name	Area (acres)	Flow Length (ft)	Slope	Rainfall Depth (in)	Percent Impervious	Soil Type	Burn Factor	Bulk Factor
DMA 1	3.40	155.50	1.2 %	5.9	83.4 %	6	0	0
DMA 2	6.56	553	0.4%	5.9	59.3 %	6	0	0
DMA 3	1.54	110	0.8%	5.9	94.8 %	6	0	0
DMA 4	1.30	260	0.2%	5.9	62.1 %	6	0	0
Total	**12.80**	**-**	**-**	**-**	**70.25%**	**-**	**-**	**-**

****See Attachment 2 for HydroCalc Inputs and Outputs****

Table 4 – Proposed Conditions Calculation Summary

Name	TC (min)	Q25 (cfs)	V25 (acre-ft)
DMA 1	5	9.33	1.14
DMA 2	10	12.33	1.72
Total 118th Street	**-**	**21.66**	**2.86**
DMA 3	5	4.27	0.57
DMA 4	7	2.95	0.35
Total 117th Street	**-**	**7.22**	**0.92**

****See Attachment 2 for HydroCalc Inputs and Outputs****

1.2 Proposed Condition Detention Requirements

Due to the proposed condition having more impervious area than the existing condition, the 25-year Clear Peak Flow Rate is greater in the proposed condition compared to the existing condition. Therefore, detention is required.

Table 5 – Required Detention for Drainage Areas

Name	Required Detention (CF)	Volume Provided by Drywell + Storage Tank (CF)
DMA 1	8,451	8,473
DMA 2	12,209	12,246
DMA 3	4,283	4,336
DMA 4	2,514	2,528

****See Attachment 4 for HydroCalc Comparison****

H. Low Impact Development Calculations & Mitigation

1.1 Low Impact Development Overview and Calculations

The proposed collection and conveyance system will be comprised of four separate stormwater treatment systems. The design infiltration rate that was used to size the system is 0.56 inches per hour which was determined by applying a factor of safety of 2 to the infiltration rate 1.12 inches per hour per the Geotechnical Report, see Attachment 7. See Exhibit F for proposed Low Impact Development features, Exhibit E for the proposed drainage management areas, and Attachment 6 for drywell sizing calculations. The first stormwater treatment system will collect stormwater runoff from DMA 1 which includes five proposed buildings. The system, located between Building A1 and U1, comprises of a manhole connecting to a CDS Unit sized to treat the 85th percentile storm. The stormwater that enters the CDS unit will then be routed to 4 drywells. A storage tank is proposed to be in line with the storm drain system to mitigate the increase flow due to the proposed condition. The stormwater in excess of the 85th percentile will discharge via an outlet structure sized for the 25-year storm event to East 118th Street. The second stormwater treatment system will collect stormwater runoff from DMA 2 which includes four proposed buildings and a field. The system, located to the right of the proposed field, comprises of a manhole connecting to a CDS Unit sized to treat the 85th percentile storm. The stormwater that enters the CDS unit will then be routed to 6 drywells. A storage tank is proposed to be in line with the storm drain system to mitigate the increase flow due to the proposed condition. The stormwater in excess of the 85th percentile will discharge via an outlet structure sized for the 25-year storm event to East 118th Street. The third stormwater treatment system will collect stormwater runoff from DMA 3 which includes two proposed buildings. The system, located to the right of Building U6, comprises of a manhole connecting to a CDS Unit sized to treat the 85th percentile storm. The stormwater that enters the CDS unit will then be routed to 2 drywells. A storage tank is proposed to be in line with the storm drain system to mitigate the increase flow due to the proposed condition. The stormwater in excess of the 85th percentile will discharge via an

outlet structure sized for the 25-year storm event to East 117th Street. The fourth stormwater treatment system will collect stormwater runoff from DMA 4 which includes a proposed parking structure. The system, located to the right of the parking structure, manhole connecting to a CDS Unit sized to treat the 85th percentile storm. The stormwater that enters the CDS unit will then be routed to 5 drywells. A storage tank is proposed to be in line with the storm drain system to mitigate the increase flow due to the proposed condition. The stormwater in excess of the 85th percentile will discharge via an outlet structure sized for the 25-year storm event to East 117th Street.

See tables below for Hydocalc inputs and output for each Drainage Management Area. The 85th percentile treatment volume and the anticipated number of drywells and storage volume were calculated based on Los Angeles County Low Impact Development Stormwater Treatment Manual. See Exhibit F for assumed drywell and storage tank locations and assumed drywell depth.

Table 6 – Low Impact Development 85th Percentile Input Data

Name	Area	Flow Length (ft)	Slope	Rainfall Depth (in)	Soil	Burn Factor	Bulk Factor
DMA 1	3.40	155.50	1.2 %	0.9	6	0	0
DMA 2	6.56	553	0.4%	0.9	6	0	0
DMA 3	1.54	110	0.8%	0.9	6	0	0
DMA 4	1.30	260	0.2%	0.9	6	0	0

****See Attachment 3 for HydroCalc Inputs and Outputs****

Table 7 – Low Impact Development 85th Percentile Calculation Summary

Name	85th Percentile Required Volume (cf)	# of Drywells	Volume Retained in Drywells (cf)	Detention Storage Tank Required (cf)	Detention Storage Tank Provided (cf)	Total Storage (cf)
DMA 1	8,522	4	1,240	7,282	7,339	**8,577**
DMA 2	12,310	6	1,860	10,450	10,518	**12,376**
DMA 3	4,319	2	620	3,699	3,770	**4,381**
DMA 4	2,535	5	1,550	985	1,018	**2,566**

****See Attachment 3 for HydroCalc Inputs and Outputs****

Noted during the design phase other factors may impact the stormwater treatment design, but we understand that treatment of the 85th percentile storm will be required per the Los Angeles County Low Impact Development standards.

1.2 Proposed Best Management Practices (BMP)

The Best Management Practices (BMPs) on the following page are proposed for the project in accordance with LID requirements.

Table 8 – Overview of Project Best Management Practices (BMPs)

BMP NO	Objective	BMP Name	Summary
S-1	Source Control	Storm Drain Message and Signage	Informs the public that dumping of waste into storm drain inlets I prohibited and/or that the drain ultimately discharges into receiving water.
S-8	Source Control	Landscape Irrigation Practices	By effectively irrigating, less runoff is produced resulting in less potential for pollutants to enter the storm drain system.
S-9	Source Control	Building Materials Selection	The use of alternating building material can reduce pollutant sources in stormwater runoff by eliminating compounds that can leach into stormwater runoff.

**** Per the County of Los Angeles Low Impact Development****
****See Attachment 5 for BMP Information****

1.3 Post Construction BMP Operations & Maintenance

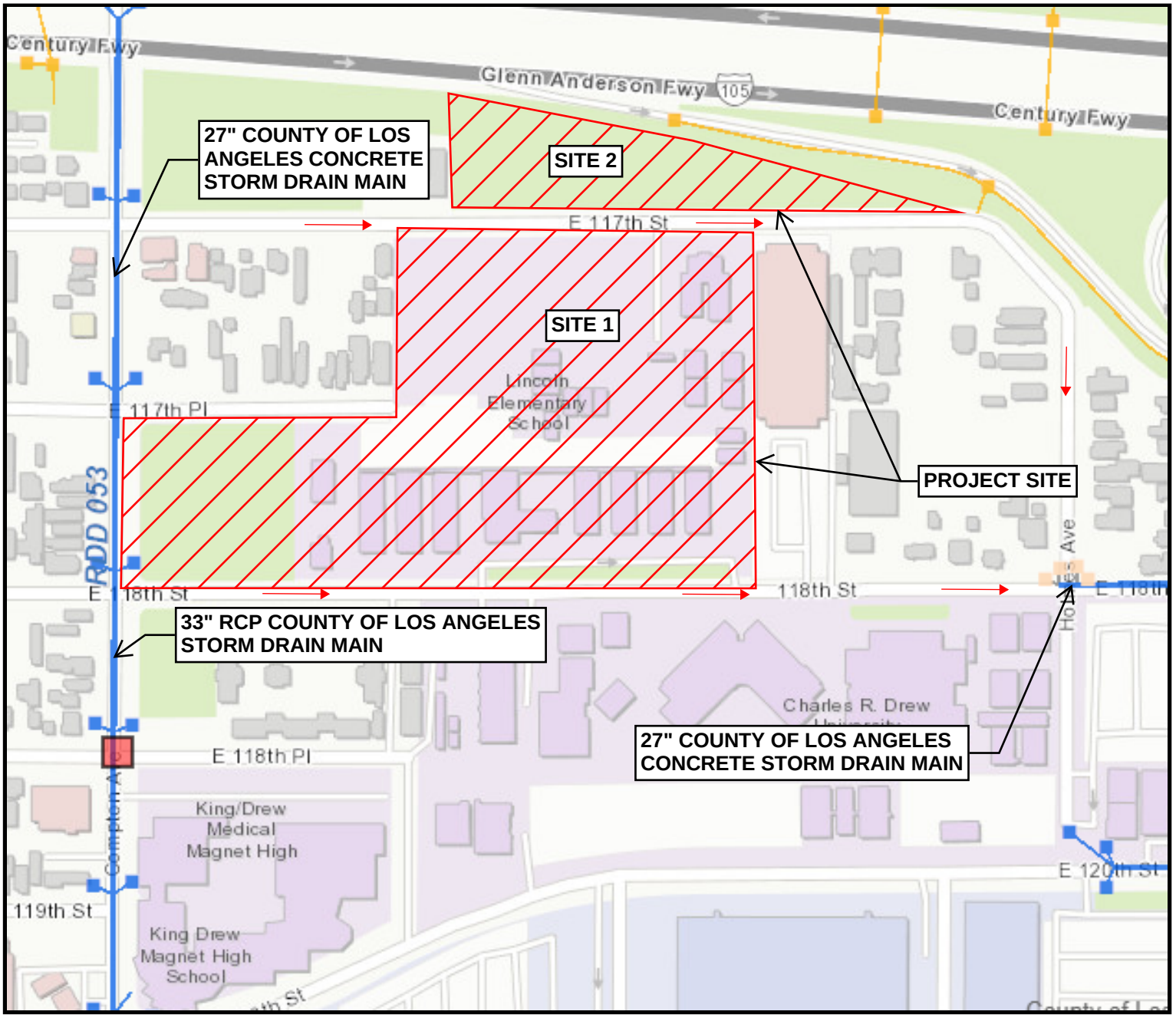
At this time all the treatment features and design are conceptual. BMP Operation & Maintenance to be filled out as part of permit process once the project moves forward. Additional site specific deep infiltration will be required to implement site specific conceptual solutions.

I. Summary & Conclusion

In the existing condition, the campus was 38.68% impervious and in the proposed condition the campus will be 70.25% impervious. The proposed development will maintain existing flow patterns to the two existing catch basins east of the project as presented in Sections F-H. The project is anticipated to maintain the pre-development flow rate and offset the difference due to the proposed substantial volume storage and is not anticipated to increase the demand on the existing downstream storm drain infrastructure. See Attachment 4 illustrating the existing and proposed 25-year peak flow rate comparison.

Exhibit A:
Existing Storm Drain System

Exhibit A - Existing Storm Drain System



LOS ANGELES COUNTY STORM DRAIN SYSTEM

https://pw.lacounty.gov/fcd/StormDrain/index.cfm

Exhibit B:
FEMA Floodplain Map

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole–foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC–3, #9202
1315 East–West Highway
Silver Spring, MD 20910–3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713–3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later and from National Geospatial Intelligence Agency imagery produced at a scale of 1:4,000 from photography dated 2003 or later.

This map reflects more detailed and up–to–date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

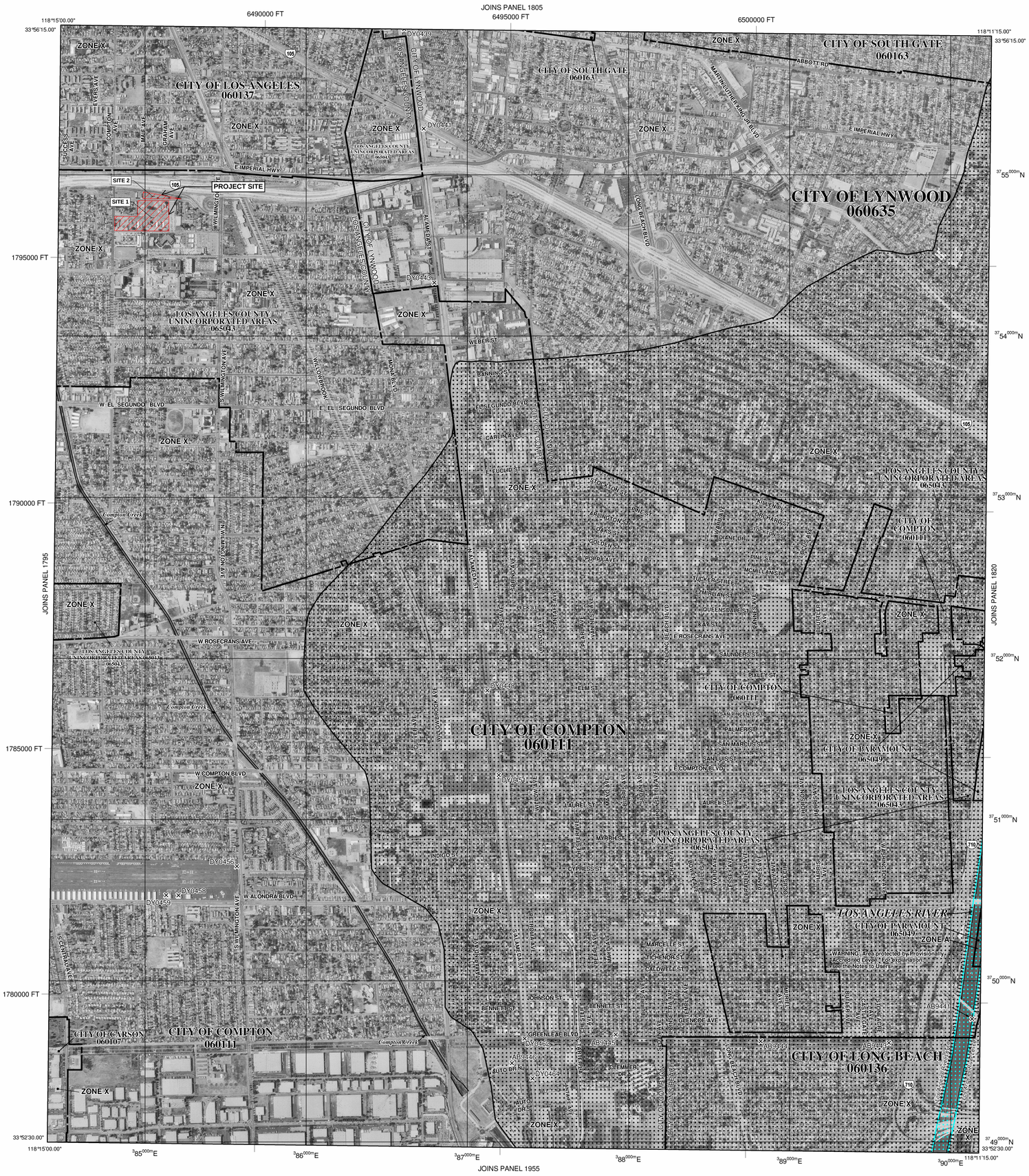
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de–annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1–800–358–9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report,* and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1–800–358–9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1–877–FEMA MAP** (1–877–336–2627) or visit the FEMA website at http://www.fema.gov/.

WARNING: This levee, dike, or other structure has been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by October 16, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A–A — Cross section line
- 23–23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid values, zone 11
- 6000000 FT — 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1–800–638–6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1815F

FIRM
FLOOD INSURANCE RATE MAP
LOS ANGELES COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1815 OF 2350
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOS ANGELES COUNTY	065043	1815	F
CARSON, CITY OF	060107	1815	F
COMPTON, CITY OF	060111	1815	F
LONG BEACH, CITY OF	060136	1815	F
LOS ANGELES, CITY OF	060137	1815	F
LYNWOOD, CITY OF	060635	1815	F
PARAMOUNT, CITY OF	065049	1815	F
SOUTH GATE, CITY OF	060163	1815	F

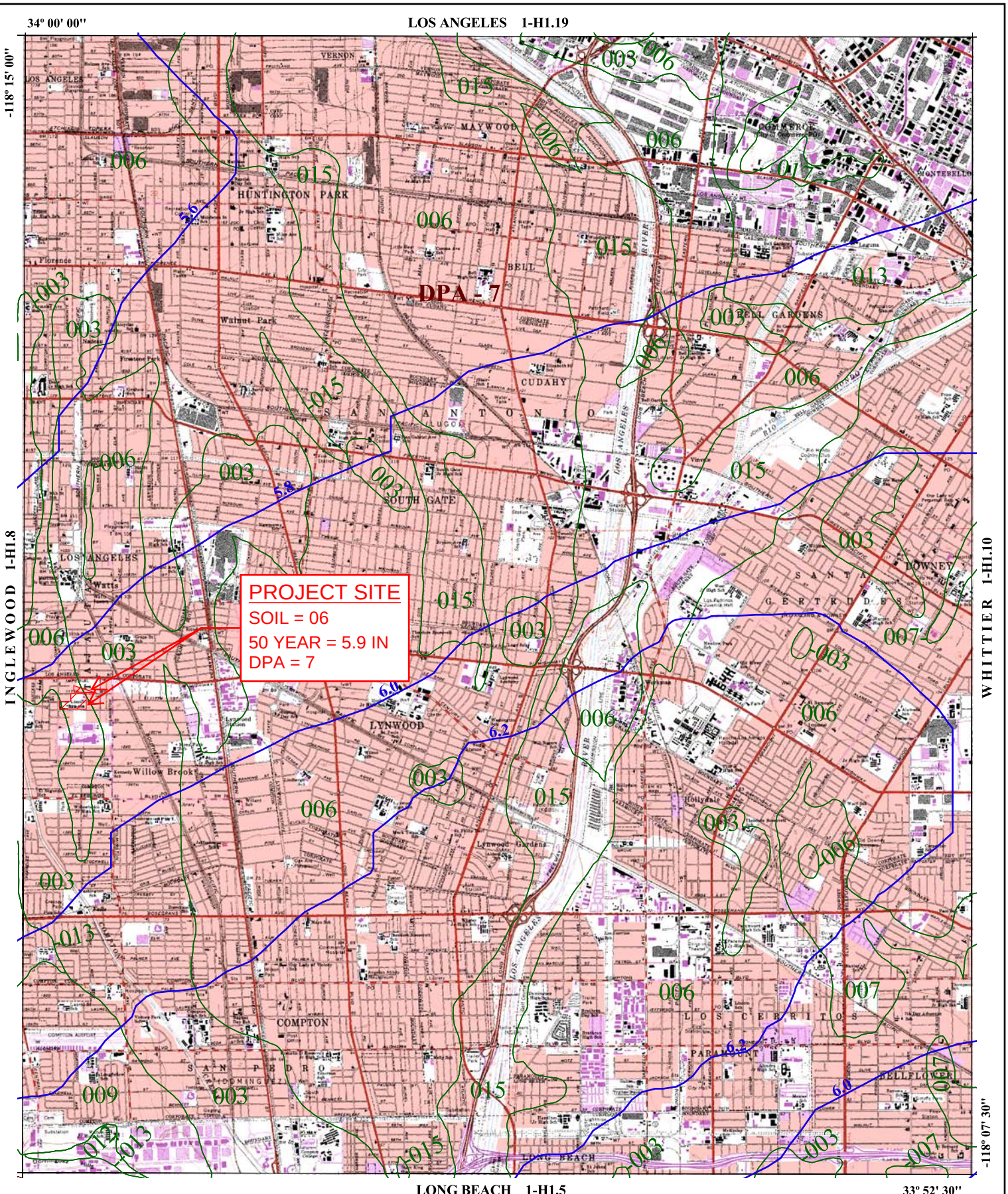
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06037C1815F

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

Exhibit C:
Los Angeles County
Soil/Rainfall/DPA Zone Map



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

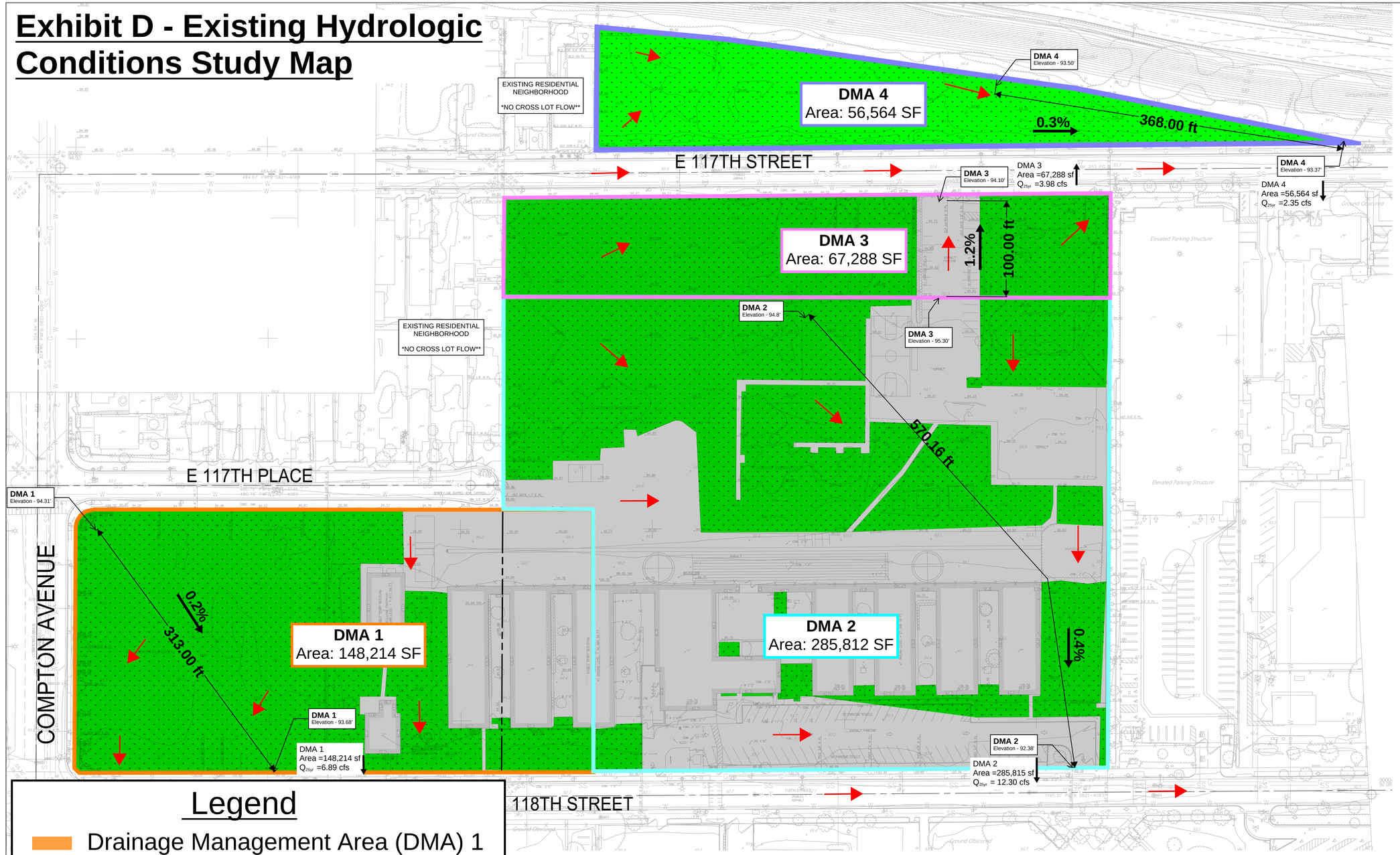
SOUTH GATE
50-YEAR 24-HOUR ISOHYET

1-H1.9

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

Exhibit D:
Existing Hydrologic Conditions Study Map

Exhibit D - Existing Hydrologic Conditions Study Map

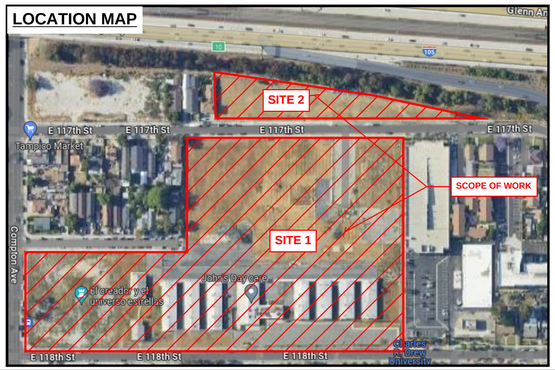


Legend

- Drainage Management Area (DMA) 1
- Drainage Management Area (DMA) 2
- Drainage Management Area (DMA) 3
- Drainage Management Area (DMA) 4
- Impervious Area
- Pervious Area

Total Site Area: 557,878 SF = 12.80 Acres

LOCATION MAP



Existing Condition Input Data

Name	Area (acres)	Flow Length (ft)	Slope	Rainfall Depth (in)	Percent Impervious	Soil Type	Burn Factor	Bulk Factor
DMA 1	3.40	313	0.2 %	5.9	28.6 %	6	0	0
DMA 2	6.56	570	0.4 %	5.9	58.0 %	6	0	0
DMA 3	1.54	100	1.2 %	5.9	11.3 %	6	0	0
DMA 4	1.30	368	0.3 %	5.9	0.01 %	6	0	0
Total	**12.80**	–	–	–	**38.68%**	–	–	–

NOTE:
NOT WITHIN COUNTY ADOPTED FLOODWAY.
NOT WITHIN FEMA ZONE "A".

N

0 25' 50'
SCALE: 1"=50'

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Suite 2100
Los Angeles, CA 90017
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EXISTING CONDITIONS (FOR REFERENCE ONLY)

C1.00

Exhibit E:
Proposed Hydrologic Conditions Study Map

Exhibit E - Proposed Hydrologic Conditions Study Map

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DMA 4
Area: 56,564 SF

DMA 3
Area: 67,288 SF

DMA 2
Area: 285,812 SF

DMA 1
Area: 148,214 SF

EXISTING RESIDENTIAL NEIGHBORHOOD
*NO CROSS LOT FLOW**

EXISTING RESIDENTIAL NEIGHBORHOOD
*NO CROSS LOT FLOW**

PROPOSED TYPE C DRIVEWAY.
94.50 FF

PROPOSED CURB RAMP PER CALTRANS A88A CASE B

CDU FACILITIES
93.90 FF

(94.38) BW
(94.22) TC

(93.94) TC

E 117TH STREET

PROPERTY LINE

(94.36) TC
(94.53) BW
95.00 FS

PROPOSED TYPE C DRIVEWAY.

OFFICE & CUSD JOINT USE / PIPELINE
BLDG U7
95.00 FF

PROPOSED CURB RAMP PER CALTRANS A88A CASE B

PROPERTY LINE

PROPOSED CURB RAMP PER CALTRANS

94.50 FF

PROPOSED TYPE C DRIVEWAY.

PARKING
1 LEVEL BELOW GRADE

94.00 FS

92.40 FS

DMA 2
Elevation - 94.50'

MARKET RATE HOUSING
BLDG U4
94.50 FF

94.50 FF

MARKET RATE HOUSING
BLDG U2

PROPERTY LINE

E 117TH PLACE

COMPTON AVENUE

(94.30) TC
(94.62) TC
(94.46) BW
(94.79) BW

95.00 FF
AFFORDABLE HOUSING
BLDG A4

95.00 FF
AFFORDABLE HOUSING
BLDG A2

DMA 1
Elevation - 95.00'

NEW TYPE C DRIVEWAY TO BE INSTALLED.

AFFORDABLE SENIOR HOUSING
BLDG A5

95.00 FF

94.50 FF
AFFORDABLE HOUSING
BLDG A3

94.50 FF
AFFORDABLE HOUSING
BLDG A1

MARKET RATE HOUSING
BLDG U1

94.50 FF

PROPOSED TYPE C DRIVEWAY.

PROPERTY LINE

(93.16) BW
(93.00) TC

93.50 FS

DMA 1
Elevation - 93.16'

MARKET RATE HOUSING & CDU FOCUSED COMMERCIAL
BLDG U3
93.50 FF

92.64 FS

PEDESTRIAN PATHWAY

93.00 FF

93.00 FS

COBB PLAZA

DMA 2
Elevation - 92.34'

(93.12) BW
DROP OFF
(92.95) TC

E 118TH STREET

PROPERTY LINE

(92.38) BW
(92.21) TC

DMA 4
Elevation - 93.90'

260.00 ft

0.2%

(93.37) BW

DMA 4
Elevation - 93.37'

(93.20) TC

DMA 4
Area =56,564 sf
Q_{25yr} =2.95 cfs

REQUIRED DETENTION: 202 CF --->
VOLUME PROVIDED BY DETENTION: 2,568 CF

REFER TO ATTACHMENT 4 FOR CALCULATIONS

DMA 3
Elevation - 93.62'

(93.62) BW

DMA 3
Area =67,288 sf
Q_{25yr} =4.26 cfs

REQUIRED DETENTION: 41.80 CF --->
VOLUME PROVIDED BY DETENTION: 4,390 CF

REFER TO ATTACHMENT 4 FOR CALCULATIONS

0.8%

110.00 ft

DMA 3
Elevation - 94.50'

94.50 FS

PROPERTY LINE

0.4%

553.83 ft

92.40 FS

1.2%

155.50 ft

DMA 1
Area =148.214 sf
Q_{25yr} =9.33 cfs

DMA 2
Elevation - 92.34'

DMA 2
Area =285,812 sf
Q_{25yr} = 12.32 cfs

REQUIRED DETENTION: 1.80 CF --->
VOLUME PROVIDED BY DETENTION: 12,378 CF

REFER TO ATTACHMENT 4 FOR CALCULATIONS

REQUIRED DETENTION: 645 CF --->
VOLUME PROVIDED BY DETENTION: 8,579 CF

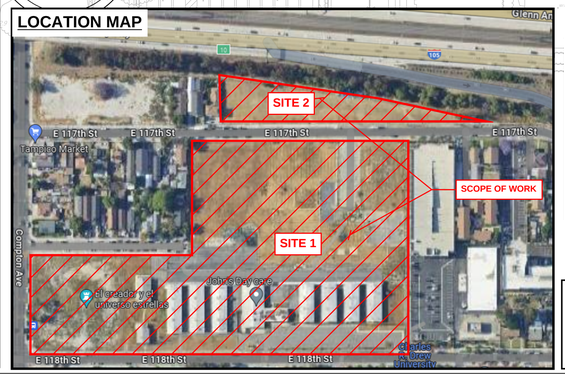
REFER TO ATTACHMENT 4 FOR CALCULATIONS

Legend

- Drainage Management Area (DMA) 1
- Drainage Management Area (DMA) 2
- Drainage Management Area (DMA) 3
- Drainage Management Area (DMA) 4
- Impervious Area
- Pervious Area

Total Site Area: 557,878 SF = 12.80 Acres

LOCATION MAP



Proposed Condition Input Data

Name	Area (acres)	Flow Length (ft)	Slope	Rainfall Depth (in)	Percent Impervious	Soil Type	Burn Factor	Bulk Factor
DMA 1	3.40	155.50	1.2 %	5.9	83.4 %	6	0	0
DMA 2	6.56	553	0.4%	5.9	59.3 %	6	0	0
DMA 3	1.54	110	0.8%	5.9	94.8 %	6	0	0
DMA 4	1.30	260	0.2%	5.9	62.1 %	6	0	0
Total	**12.80**	–	–	–	**70.25%**	–	–	–

NOTE:
NOT WITHIN COUNTY ADOPTED FLOODWAY.
NOT WITHIN FEMA ZONE "A".

N

0 25' 50'
SCALE: 1"=50'

CMWC, LLC

21001.00

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GRADING PLAN

C1.30

Exhibit F:
Low Impact Development Study Map

Exhibit F - Low Impact Development Study Map

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LEGEND

- EXISTING STORM DRAIN LINE
- PROPOSED STORM DRAIN LINE
- PROPERTY LINE
- DRAINAGE AREA BORDER
- DETENTION PIPE
- MANHOLE
- CDS UNIT
- DRYWELL
- CATCH BASIN

EXISTING RESIDENTIAL NEIGHBORHOOD
*NO CROSS LOT FLOW**

EXISTING RESIDENTIAL NEIGHBORHOOD
*NO CROSS LOT FLOW**

27" RCP COUNTY OF LOS ANGELES STORM DRAIN MAIN

33" RCP COUNTY OF LOS ANGELES STORM DRAIN MAIN

COMPTON AVENUE

E 117TH PLACE

E 117TH STREET

E 118TH STREET

DMA 4
Area: 56,564 SF

DMA 3
Area: 67,288 SF

DMA 2
Area: 285,812 SF

DMA 1
Area: 148,214 SF

DMA 4
$Q_{85th\ percentile\ required}$= 2,535 CF
$Q_{85th\ percentile\ treated}$= 2,568 CF

DMA 4
Area =56,564 sf
Q_{100} =2.95 cfs

DMA 3
Area =67,288 sf
Q_{100} =4.26 cfs

DMA 3
$Q_{85th\ percentile\ required}$= 4,319 CF
$Q_{85th\ percentile\ treated}$= 4,390 CF

DMA 2
$Q_{85th\ percentile\ required}$= 12,310 CF
$Q_{85th\ percentile\ treated}$= 12,378 CF

DMA 2
Area =285,812 sf
Q_{25yr} = 12.32 cfs

DMA 1
$Q_{85th\ percentile\ required}$= 8,522 CF
$Q_{85th\ percentile\ treated}$= 8,579 CF

DMA 1
Area =148,214 sf
Q_{25yr} =9.33 cfs

CDU FACILITIES

ATHLETICS
BLDG U6

PEDESTRIAN PATHWAY

PARKING
1 LEVEL BELOW GRADE

MARKET RATE HOUSING
BLDG U4

MARKET RATE HOUSING
BLDG U2

MARKET RATE HOUSING
BLDG U1

MARKET RATE HOUSING & CDU FOCUSED COMMERCIAL
BLDG U3

AFFORDABLE HOUSING
BLDG A4

AFFORDABLE HOUSING
BLDG A2

AFFORDABLE SENIOR HOUSING
BLDG A5

AFFORDABLE HOUSING
BLDG A3

AFFORDABLE HOUSING
BLDG A1

Elevated Parking Structure

Drywell
V= 310 CF

CDS Unit

Q85TH FLOW

HIGH FLOW STORAGE

OVERFLOW TO STREET

OVERFLOW

HIGHFLOW STORAGE

LID System Conceptual Layout
8' Diameter
73' Long
(2) Detention Pipes
V= 7,339 CF

LID System Conceptual Layout
8' Diameter
75' Long
(1) Detention Pipe
V= 3,770 CF

LID System Conceptual Layout
6' Diameter
124' Long
(3) Detention Pipes
V= 10,518 CF

LID System Conceptual Layout
6' Diameter
36' Long
(1) Detention Pipe
V= 1,018 CF

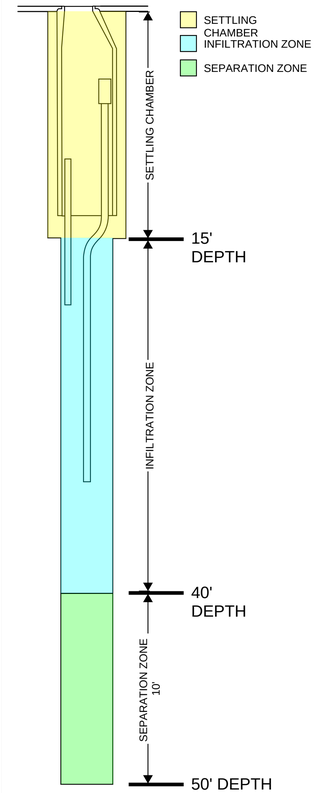
NOTE:
ASSUMED INFILTRATION RATE = 5 INCHES PER HOUR.

OWNER WILL MAINTAIN DRYWELLS, DETENTION PIPES, AND ALL OTHER DRAINAGE FACILITIES ON SITE.

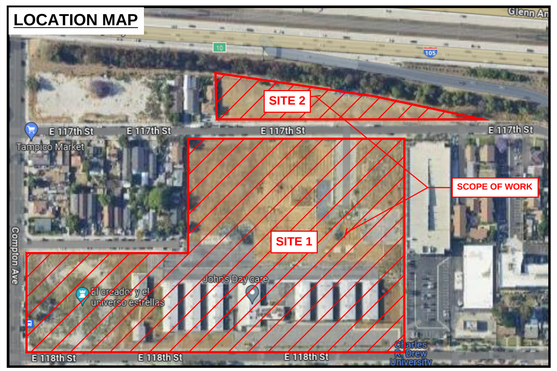
LID TREATMENT SYSTEMS LAYOUT ARE CONCEPTUAL AND WILL BE REVISED DURING THE DESIGN PHASE.

NOTE:
NOT WITHIN COUNTY ADOPTED FLOODWAY.
NOT WITHIN FEMA ZONE "A".

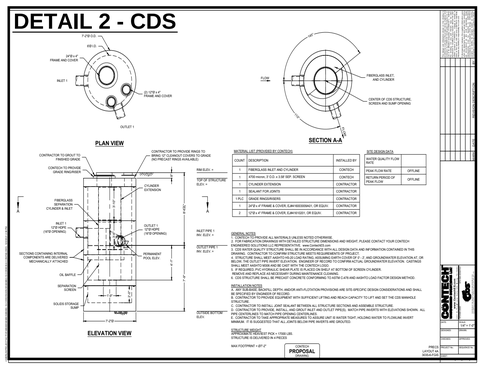
DETAIL 1 - DRYWELL LAYOUT



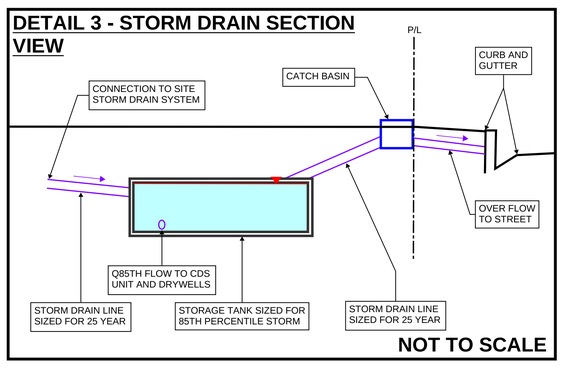
LOCATION MAP



DETAIL 2 - CDS



DETAIL 3 - STORM DRAIN SECTION VIEW



LID Treatment Summary Table

Drainage Management Area	Detention Required (cf)	Detention Capacity of LID System (cf)	Drawdown Time (hours)
1	8,522	8,577	3
2	12,310	12,376	3
3	4,319	4,481	3
4	2,535	2,566	3

N

0 25' 50'
SCALE: 1"=50'

CMWC, LLC

21001.00

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UTILITY PLAN

C1.40

Attachment 1:
Existing Condition 25-Year Hydrocalc Calculations

Peak Flow Hydrologic Analysis

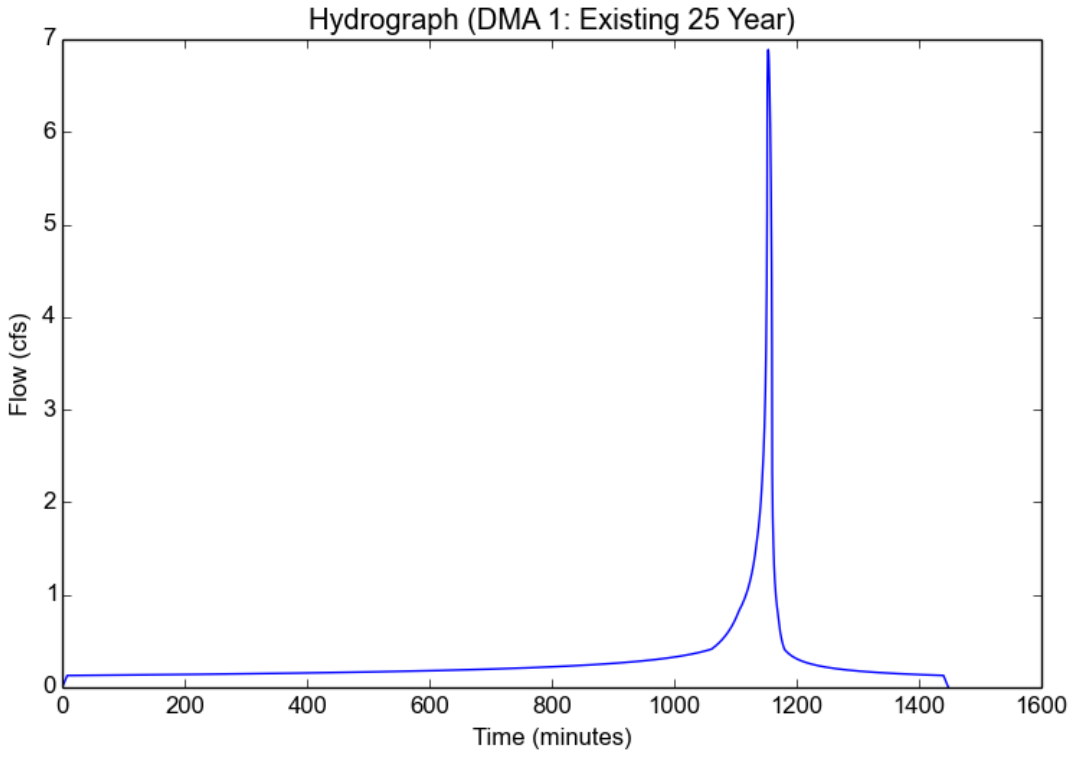
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 1-Existing Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 1
Subarea ID	Existing 25 Year
Area (ac)	3.4
Flow Path Length (ft)	313.0
Flow Path Slope (vft/hft)	0.002
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.286
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	2.4781
Undeveloped Runoff Coefficient (Cu)	0.7848
Developed Runoff Coefficient (Cd)	0.8177
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	6.8897
Burned Peak Flow Rate (cfs)	6.8897
24-Hr Clear Runoff Volume (ac-ft)	0.58
24-Hr Clear Runoff Volume (cu-ft)	25262.6546



Peak Flow Hydrologic Analysis

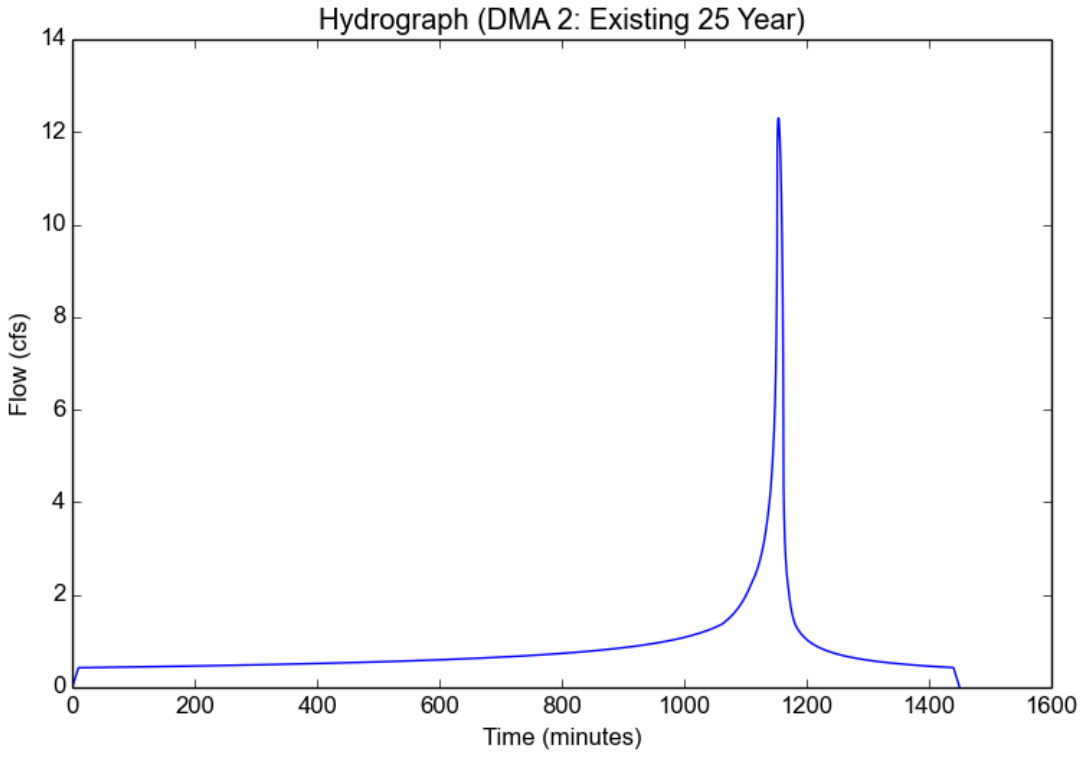
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 1-Existing Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 2
Subarea ID	Existing 25 Year
Area (ac)	6.56
Flow Path Length (ft)	570.0
Flow Path Slope (vft/hft)	0.004
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	2.2313
Undeveloped Runoff Coefficient (Cu)	0.7577
Developed Runoff Coefficient (Cd)	0.8402
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	12.2989
Burned Peak Flow Rate (cfs)	12.2989
24-Hr Clear Runoff Volume (ac-ft)	1.6983
24-Hr Clear Runoff Volume (cu-ft)	73977.6695



Peak Flow Hydrologic Analysis

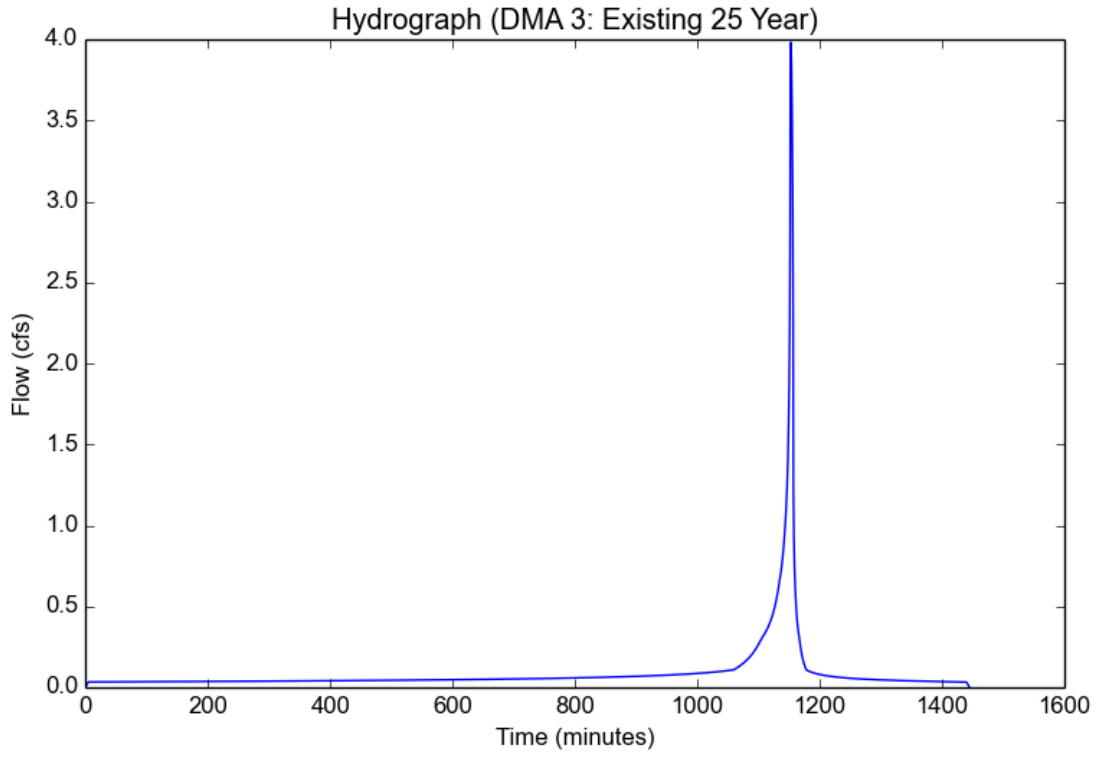
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 1-Existing Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 3
Subarea ID	Existing 25 Year
Area (ac)	1.54
Flow Path Length (ft)	100.0
Flow Path Slope (vft/hft)	0.012
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.113
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	3.0906
Undeveloped Runoff Coefficient (Cu)	0.8286
Developed Runoff Coefficient (Cd)	0.8367
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	3.9824
Burned Peak Flow Rate (cfs)	3.9824
24-Hr Clear Runoff Volume (ac-ft)	0.183
24-Hr Clear Runoff Volume (cu-ft)	7972.9127



Peak Flow Hydrologic Analysis

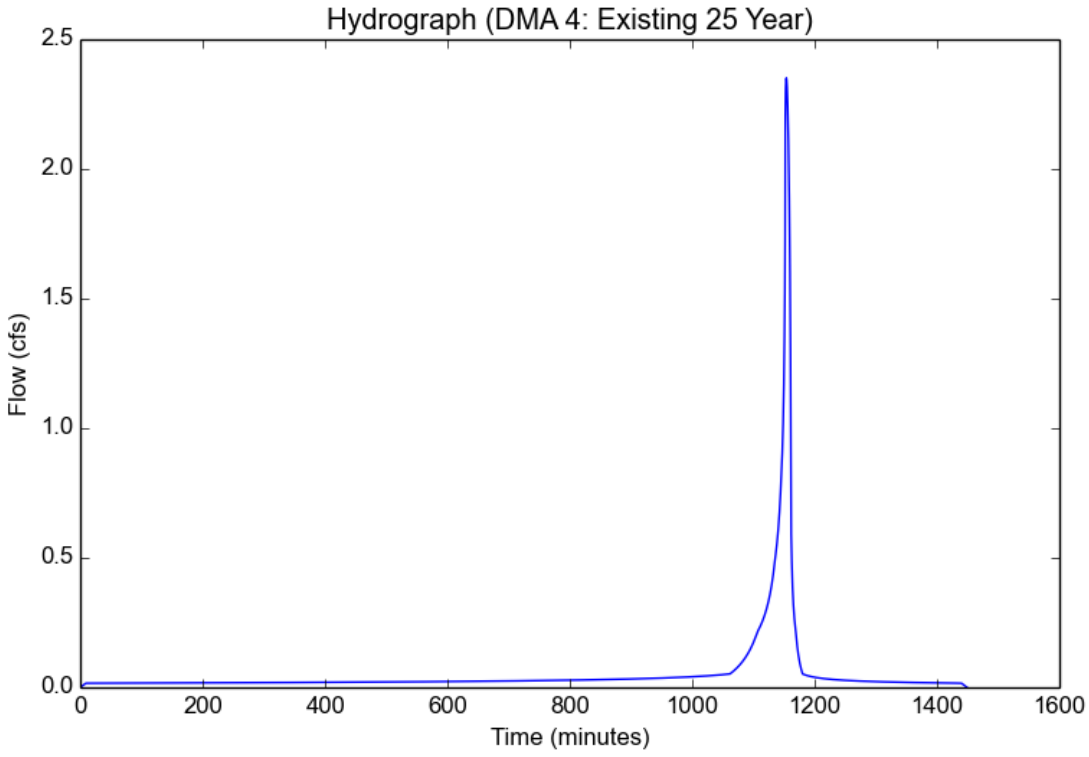
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 1-Existing Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 4
Subarea ID	Existing 25 Year
Area (ac)	1.3
Flow Path Length (ft)	368.0
Flow Path Slope (vft/hft)	0.003
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.01
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	2.3446
Undeveloped Runoff Coefficient (Cu)	0.7701
Developed Runoff Coefficient (Cd)	0.7714
Time of Concentration (min)	9.0
Clear Peak Flow Rate (cfs)	2.3513
Burned Peak Flow Rate (cfs)	2.3513
24-Hr Clear Runoff Volume (ac-ft)	0.1137
24-Hr Clear Runoff Volume (cu-ft)	4951.0928



Attachment 2:
Proposed Condition 25-Year Hydrocalc Calculations

Peak Flow Hydrologic Analysis

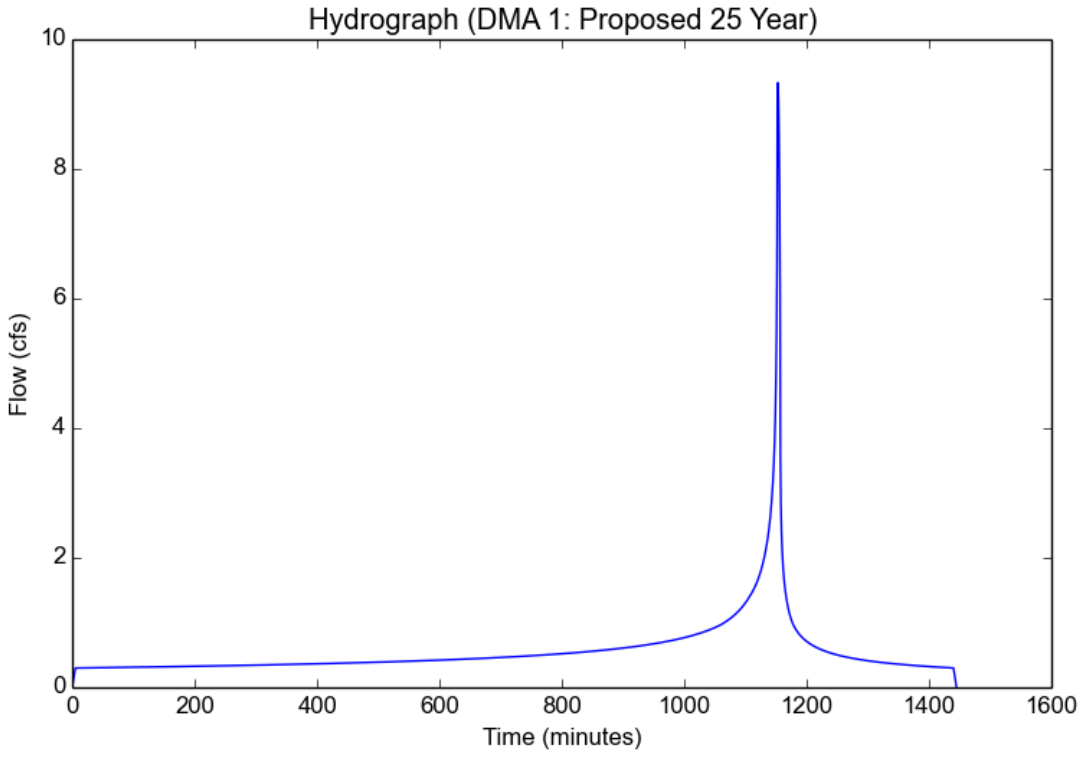
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 2-Proposed Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 1
Subarea ID	Proposed 25 Year
Area (ac)	3.4
Flow Path Length (ft)	155.5
Flow Path Slope (vft/hft)	0.012
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.834
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	3.0906
Undeveloped Runoff Coefficient (Cu)	0.8286
Developed Runoff Coefficient (Cd)	0.8882
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	9.3329
Burned Peak Flow Rate (cfs)	9.3329
24-Hr Clear Runoff Volume (ac-ft)	1.1405
24-Hr Clear Runoff Volume (cu-ft)	49679.773



Peak Flow Hydrologic Analysis

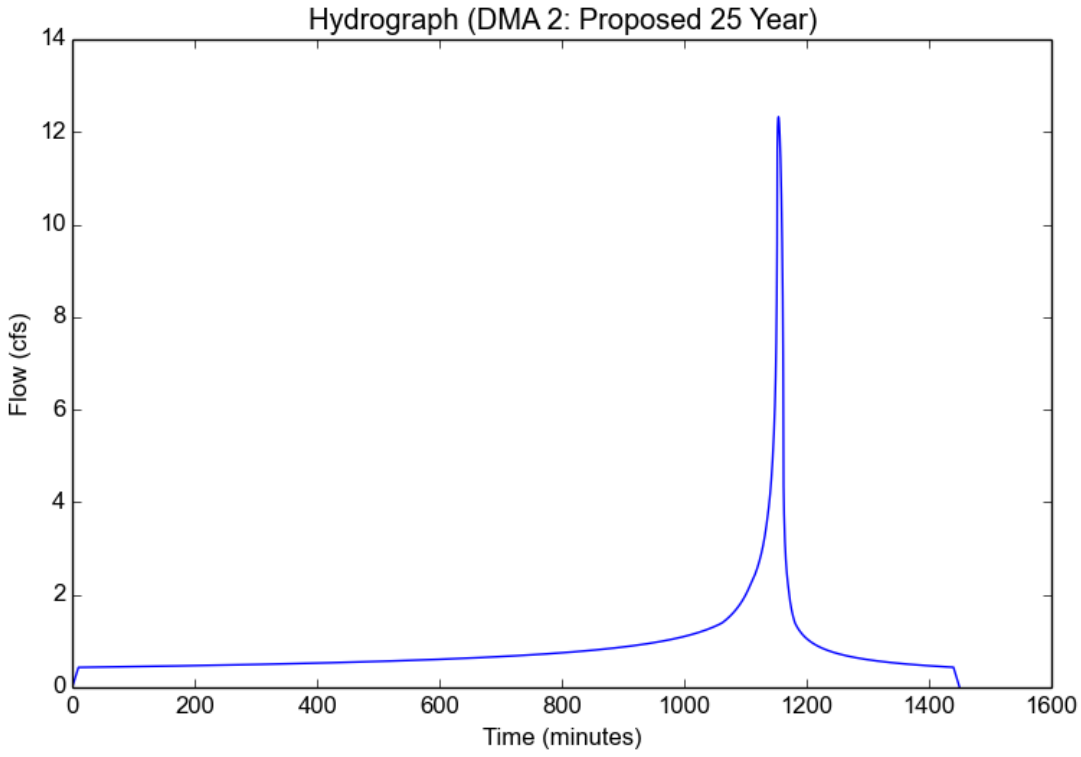
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 2-Proposed Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 2
Subarea ID	Proposed 25 Year
Area (ac)	6.56
Flow Path Length (ft)	553.0
Flow Path Slope (vft/hft)	0.004
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.593
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	2.2313
Undeveloped Runoff Coefficient (Cu)	0.7577
Developed Runoff Coefficient (Cd)	0.8421
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	12.326
Burned Peak Flow Rate (cfs)	12.326
24-Hr Clear Runoff Volume (ac-ft)	1.724
24-Hr Clear Runoff Volume (cu-ft)	75095.8092



Peak Flow Hydrologic Analysis

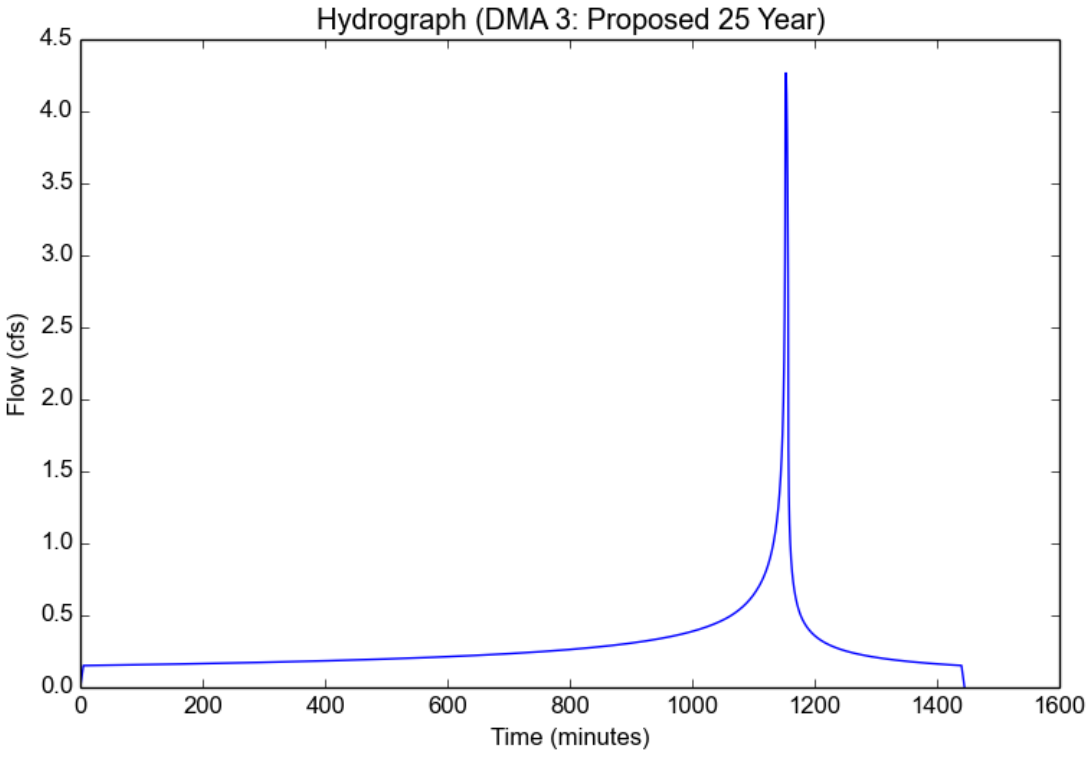
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 2-Proposed Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 3
Subarea ID	Proposed 25 Year
Area (ac)	1.54
Flow Path Length (ft)	110.0
Flow Path Slope (vft/hft)	0.008
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.948
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	3.0906
Undeveloped Runoff Coefficient (Cu)	0.8286
Developed Runoff Coefficient (Cd)	0.8963
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	4.266
Burned Peak Flow Rate (cfs)	4.266
24-Hr Clear Runoff Volume (ac-ft)	0.5693
24-Hr Clear Runoff Volume (cu-ft)	24799.2654



Peak Flow Hydrologic Analysis

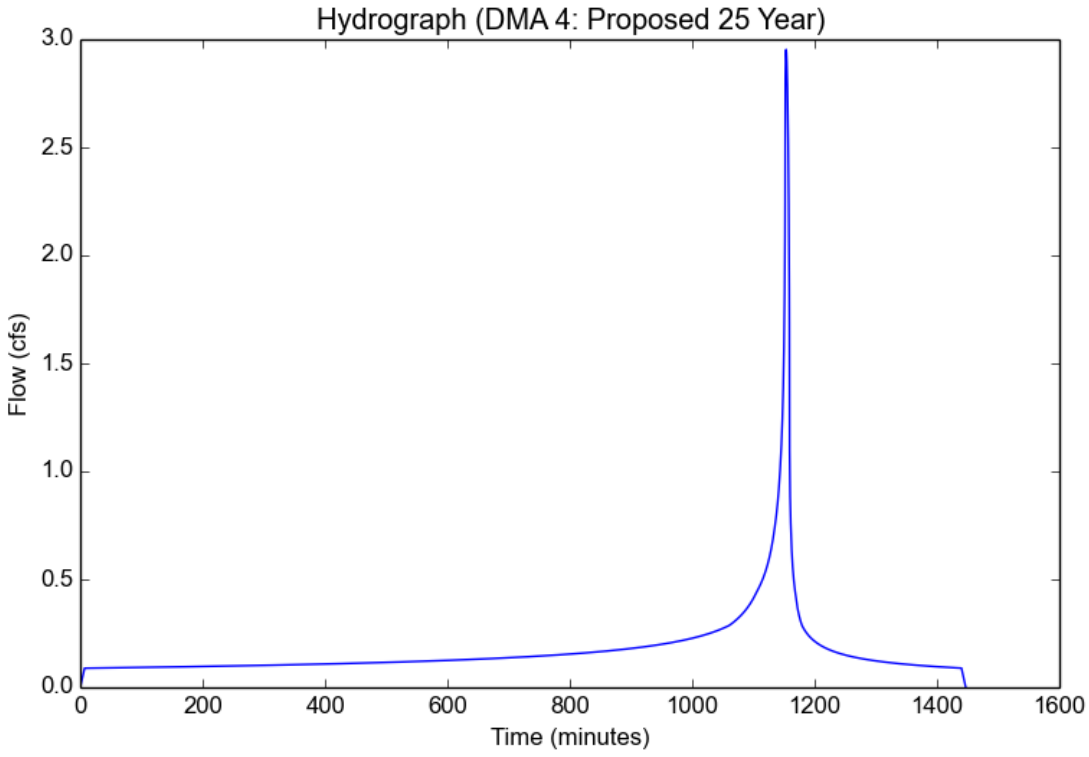
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 2-Proposed Condition 25 year/DMA
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 4
Subarea ID	Proposed 25 Year
Area (ac)	1.3
Flow Path Length (ft)	260.0
Flow Path Slope (vft/hft)	0.002
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.621
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1802
Peak Intensity (in/hr)	2.6386
Undeveloped Runoff Coefficient (Cu)	0.7969
Developed Runoff Coefficient (Cd)	0.8609
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	2.9531
Burned Peak Flow Rate (cfs)	2.9531
24-Hr Clear Runoff Volume (ac-ft)	0.3528
24-Hr Clear Runoff Volume (cu-ft)	15367.0398



Attachment 3:
Proposed Low Impact Development Calculations

Peak Flow Hydrologic Analysis

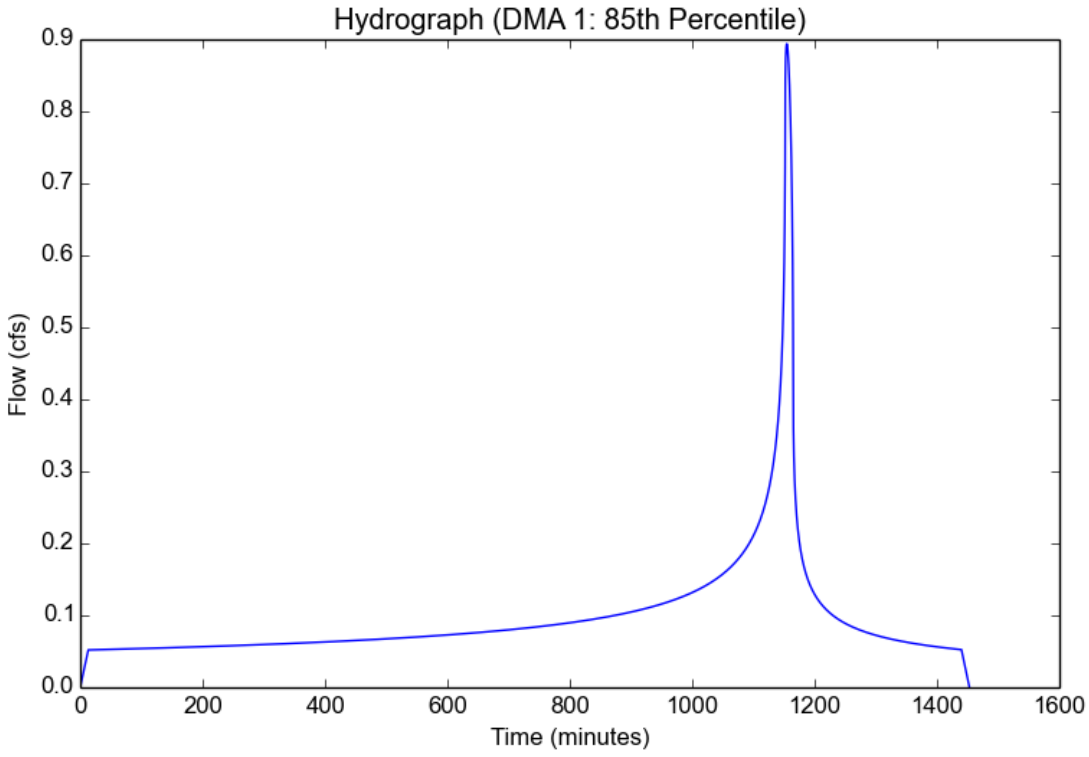
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 3- Proposed Low Impact Developm
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 1
Subarea ID	85th Percentile
Area (ac)	3.4
Flow Path Length (ft)	155.5
Flow Path Slope (vft/hft)	0.012
85th Percentile Rainfall Depth (in)	0.9
Percent Impervious	0.834
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.9
Peak Intensity (in/hr)	0.3427
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.7672
Time of Concentration (min)	13.0
Clear Peak Flow Rate (cfs)	0.8939
Burned Peak Flow Rate (cfs)	0.8939
24-Hr Clear Runoff Volume (ac-ft)	0.194
24-Hr Clear Runoff Volume (cu-ft)	8451.4932



Peak Flow Hydrologic Analysis

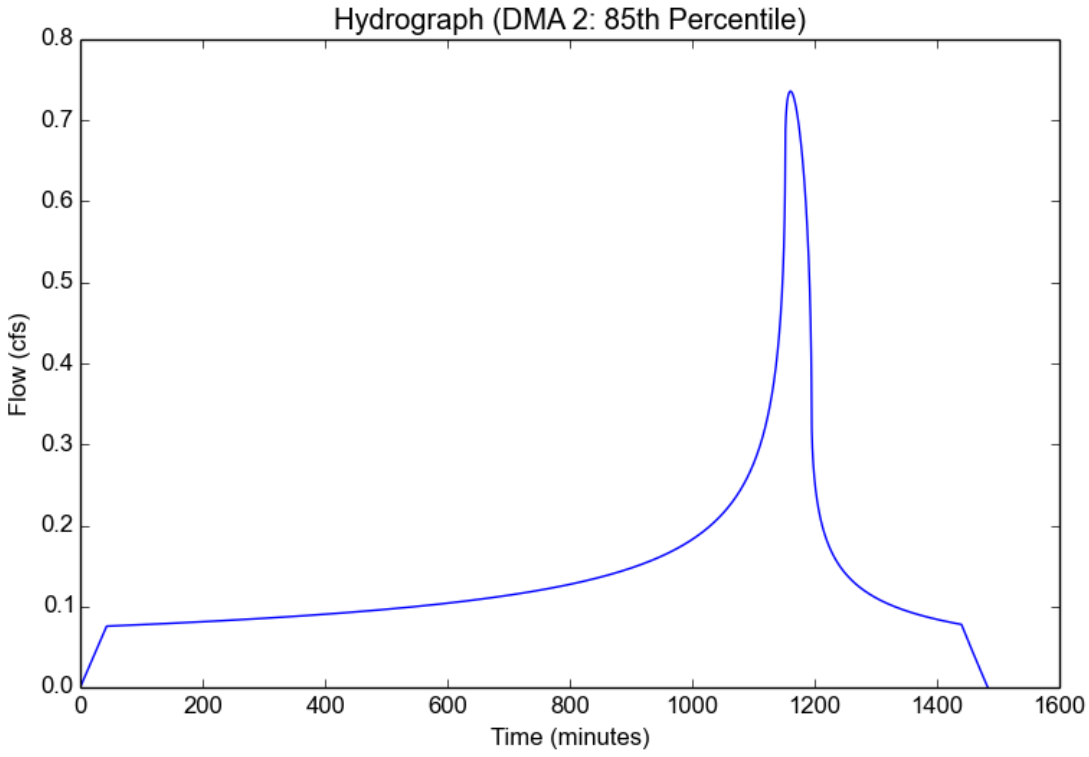
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 3- Proposed Low Impact Developm
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 2
Subarea ID	85th Percentile
Area (ac)	6.56
Flow Path Length (ft)	553.0
Flow Path Slope (vft/hft)	0.004
85th Percentile Rainfall Depth (in)	0.9
Percent Impervious	0.593
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.9
Peak Intensity (in/hr)	0.1953
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.5744
Time of Concentration (min)	43.0
Clear Peak Flow Rate (cfs)	0.736
Burned Peak Flow Rate (cfs)	0.736
24-Hr Clear Runoff Volume (ac-ft)	0.2803
24-Hr Clear Runoff Volume (cu-ft)	12208.8178



Peak Flow Hydrologic Analysis

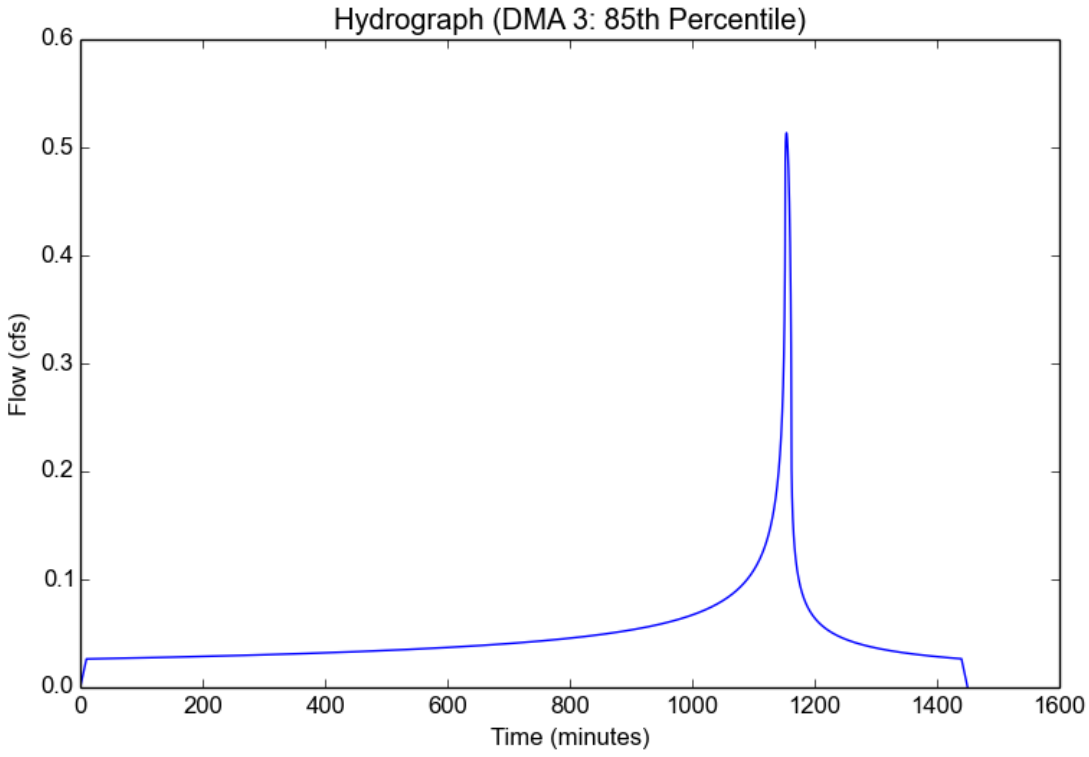
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 3- Proposed Low Impact Developm
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 3
Subarea ID	85th Percentile
Area (ac)	1.54
Flow Path Length (ft)	110.0
Flow Path Slope (vft/hft)	0.008
85th Percentile Rainfall Depth (in)	0.9
Percent Impervious	0.948
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.9
Peak Intensity (in/hr)	0.3877
Undeveloped Runoff Coefficient (Cu)	0.1304
Developed Runoff Coefficient (Cd)	0.86
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	0.5134
Burned Peak Flow Rate (cfs)	0.5134
24-Hr Clear Runoff Volume (ac-ft)	0.0983
24-Hr Clear Runoff Volume (cu-ft)	4283.2527



Peak Flow Hydrologic Analysis

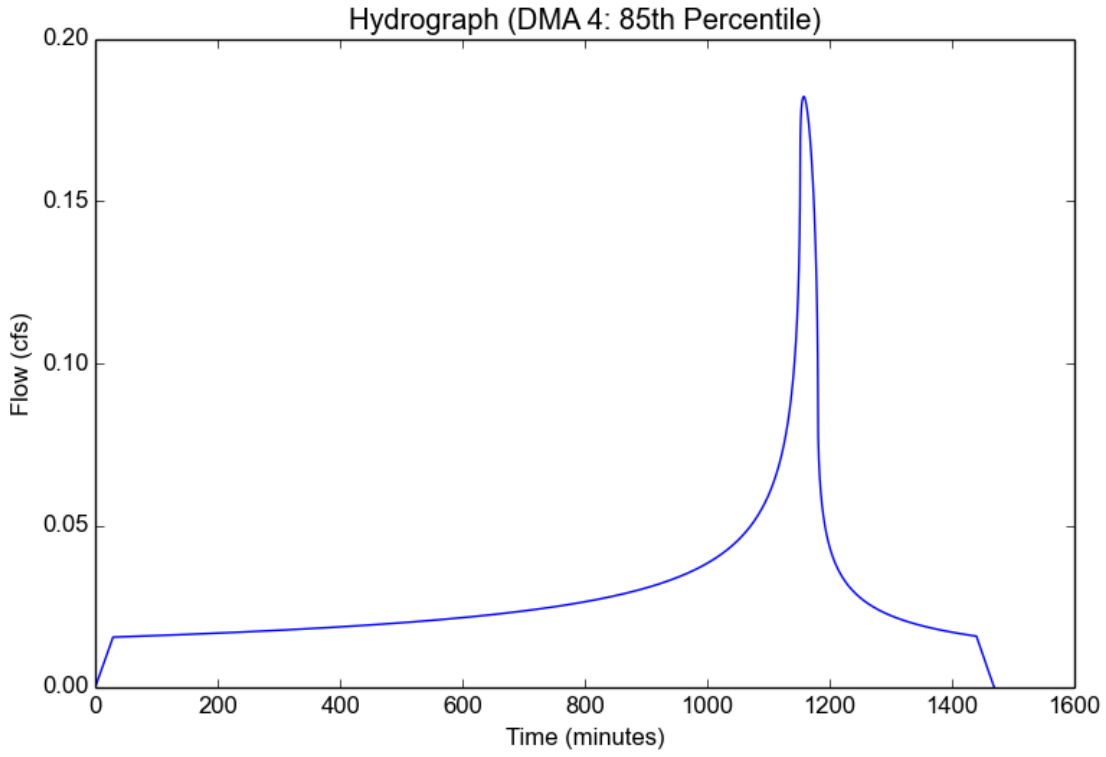
File location: P:/2021/2100176 Willowbrook Wellness Ctr North Campus/2 ENGR/STORM/2. Attachments/Attachment 3- Proposed Low Impact Developm
Version: HydroCalc 1.0.2

Input Parameters

Project Name	DMA 4
Subarea ID	85th Percentile
Area (ac)	1.3
Flow Path Length (ft)	260.0
Flow Path Slope (vft/hft)	0.002
85th Percentile Rainfall Depth (in)	0.9
Percent Impervious	0.621
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

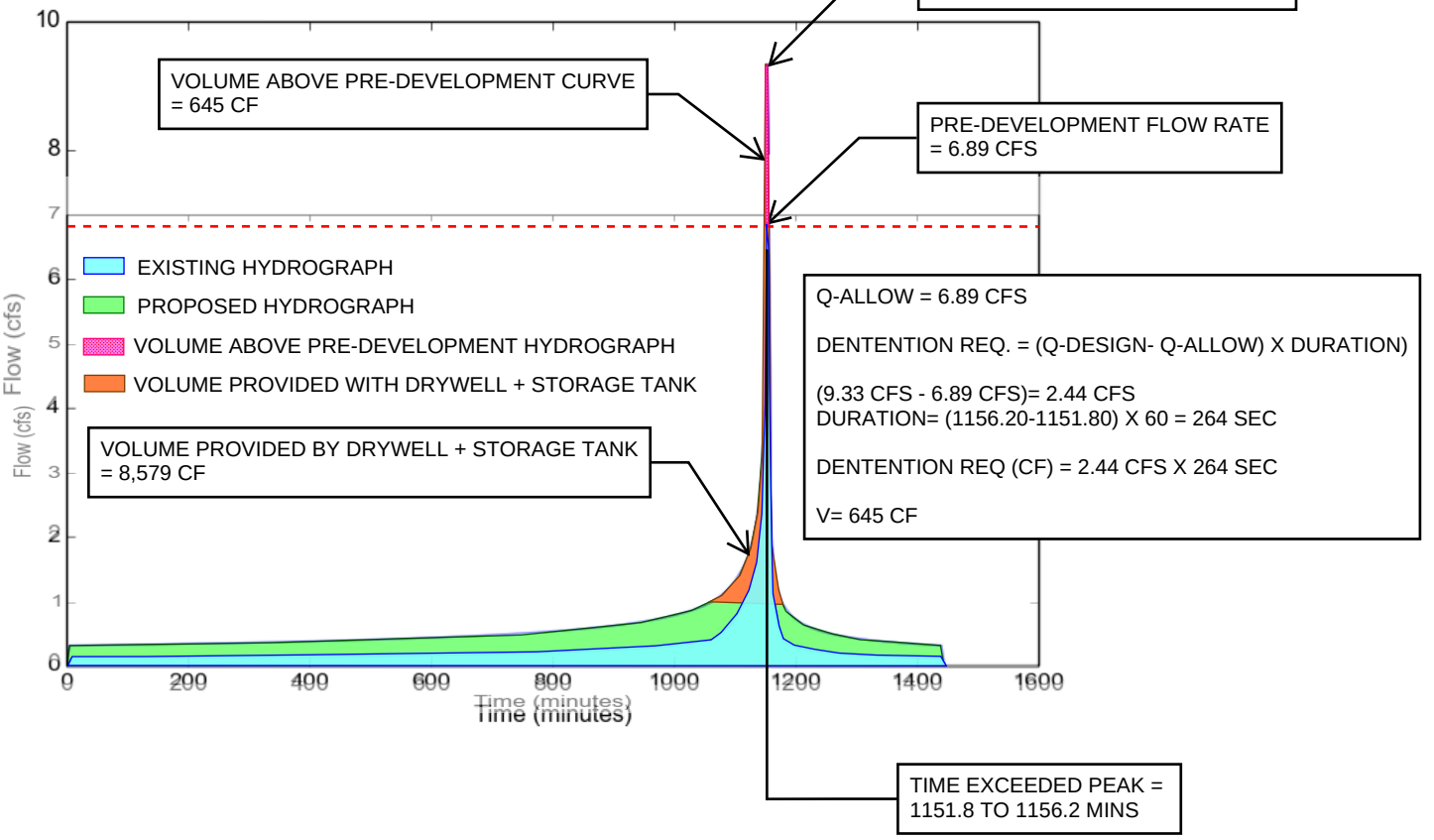
Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.9
Peak Intensity (in/hr)	0.235
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.5968
Time of Concentration (min)	29.0
Clear Peak Flow Rate (cfs)	0.1824
Burned Peak Flow Rate (cfs)	0.1824
24-Hr Clear Runoff Volume (ac-ft)	0.0577
24-Hr Clear Runoff Volume (cu-ft)	2513.7486

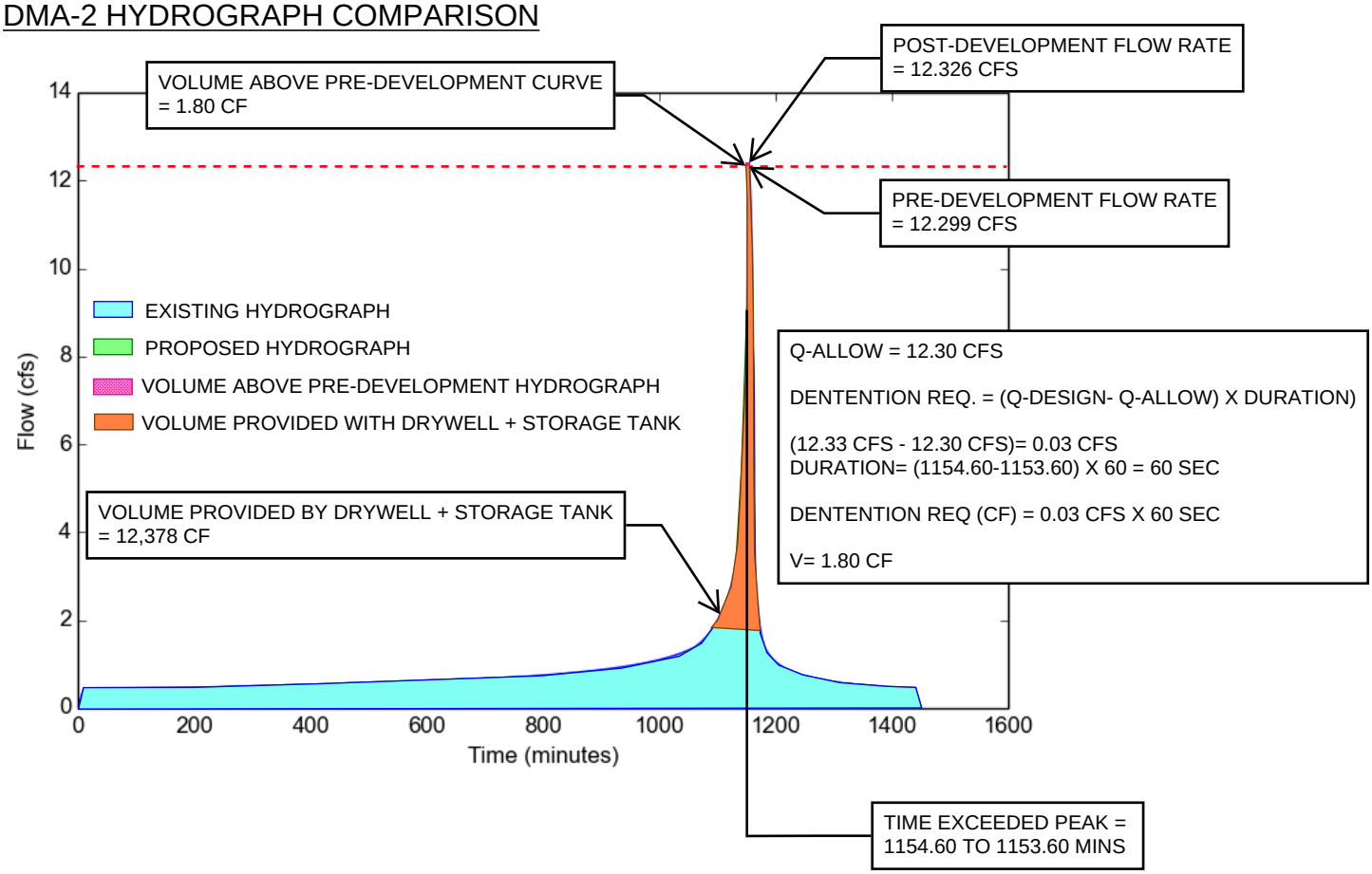


Attachment 4:
Existing vs Proposed Condition Comparison

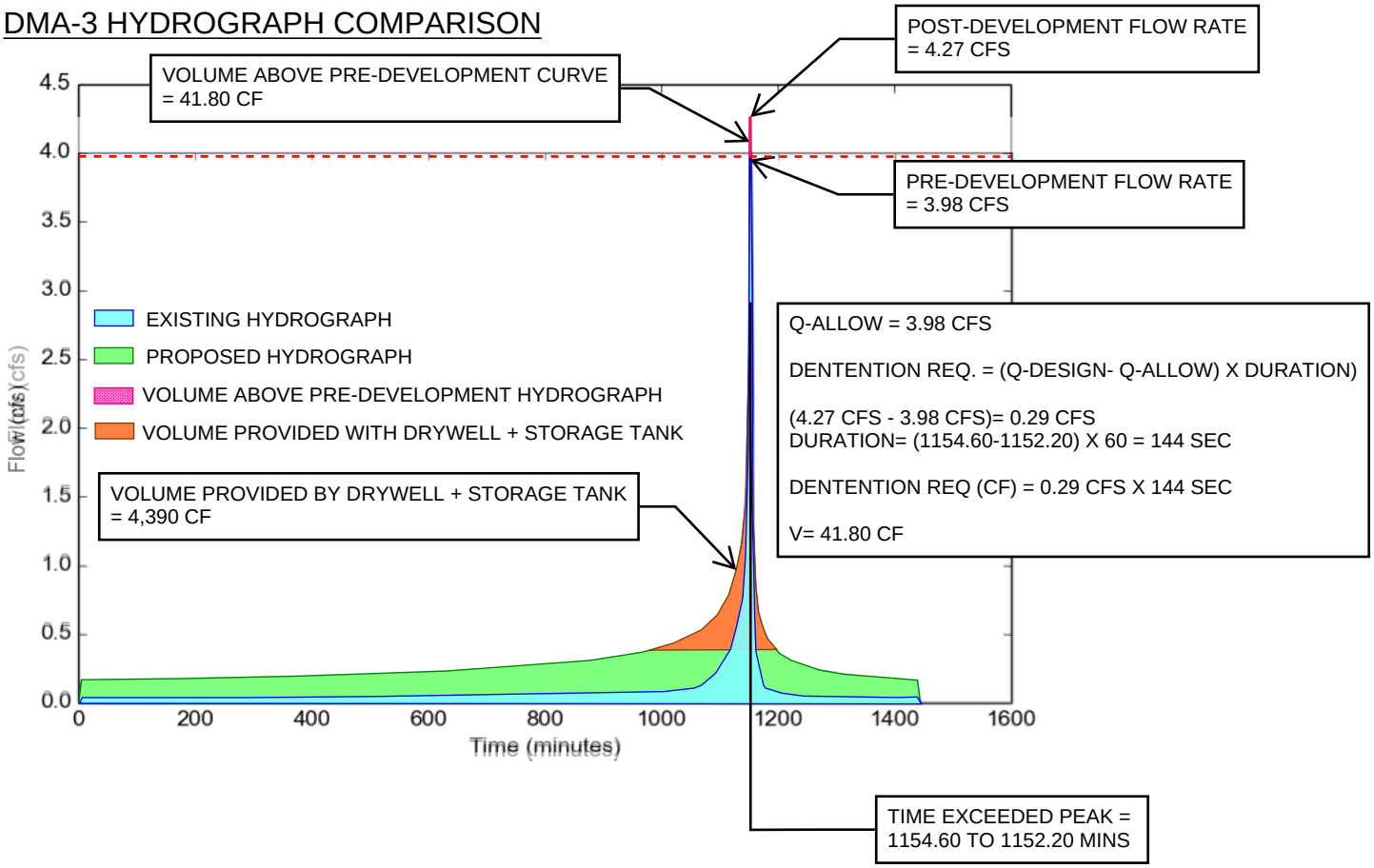
DMA-1 HYDROGRAPH COMPARISON



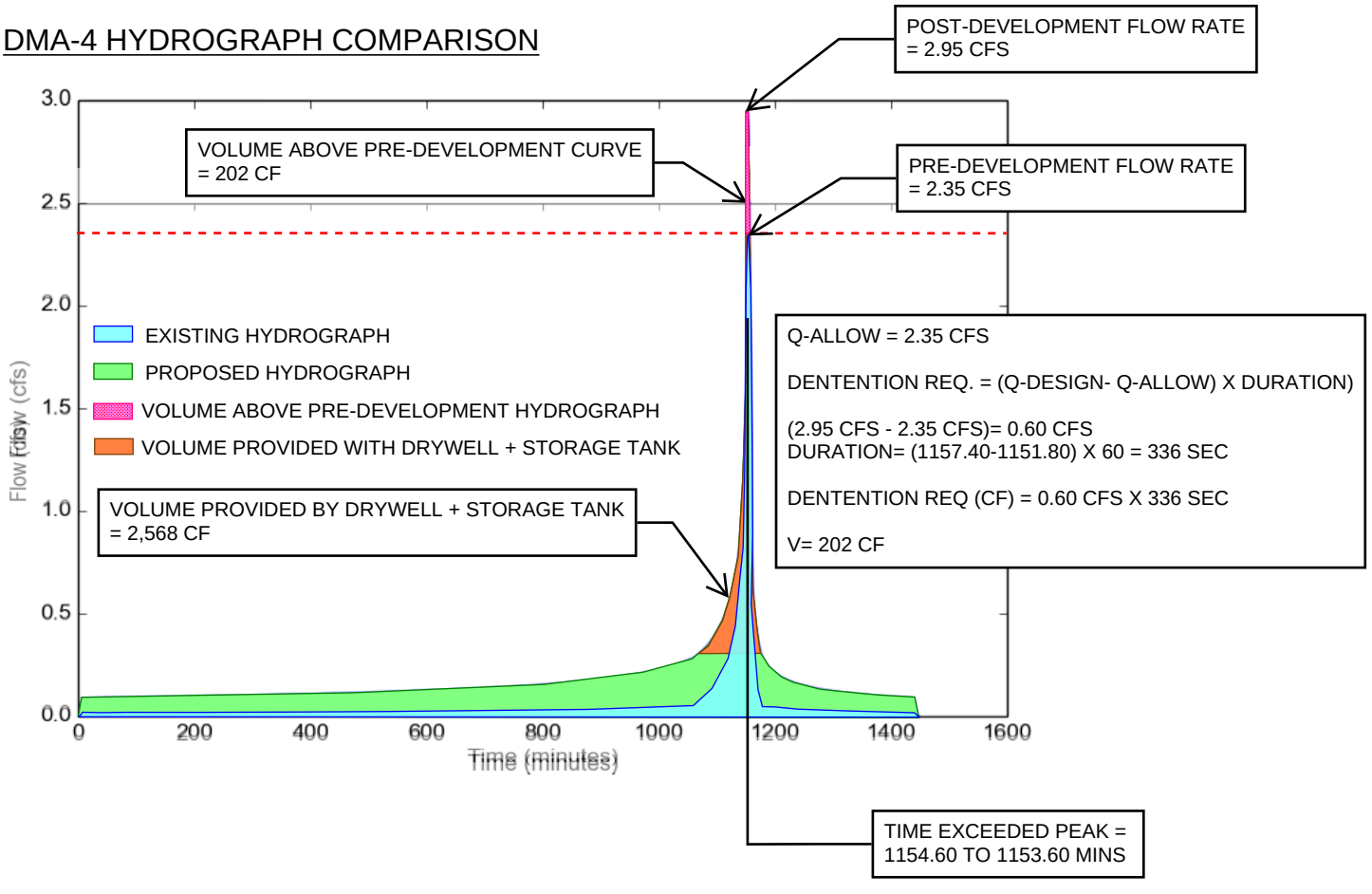
DMA-2 HYDROGRAPH COMPARISON



DMA-3 HYDROGRAPH COMPARISON



DMA-4 HYDROGRAPH COMPARISON



Attachment 5:
Low Impact Development BMP Information

S-1: Storm Drain Message and Signage

Purpose

Waste material dumped into storm drain inlets can adversely impact surface and ground waters. In fact, any material discharged into the storm drain system has the potential to significantly impact downstream receiving waters. Storm drain messages have become a popular method of alerting and reminding the public about the effects of and the prohibitions against waste disposal into the storm drain system. The signs are typically stenciled or affixed near the storm drain inlet or catch basin. The message simply informs the public that dumping of wastes into storm drain inlets is prohibited and/or that the drain ultimately discharges into receiving waters.

General Guidance

- The signs must be placed so they are easily visible to the public.
- Be aware that signs placed on sidewalk will be worn by foot traffic.

Design Specifications

- Signs with language and/or graphical icons that prohibit illegal dumping, must be posted at designated public access points along channels and streams within the project area. Consult with Los Angeles County Department of Public Works (LACDPW) staff to determine specific signage requirements for channels and streams.
- Storm drain message markers, placards, concrete stamps, or stenciled language/icons (e.g., “No Dumping – Drains to the Ocean”) are required at all storm drain inlets and catch basins within the project area to discourage illegal or inadvertent dumping. Signs should be placed in clear sight facing anyone approaching the storm drain inlet or catch basin from either side (see Figure D-1 and Figure D-2). LACDPW staff should be contacted to determine specific requirements for types of signs and methods of application. A stencil can be purchased for a nominal fee from LACDPW Building and Safety Office by calling (626) 458-3171. All storm drain inlet and catch basin locations must be identified on the project site map.

Maintenance Requirements

Legibility and visibility of markers and signs should be maintained (e.g., signs should be repainted or replaced as necessary). If required by LACDPW, the owner/operator or homeowner’s association shall enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards and signs.

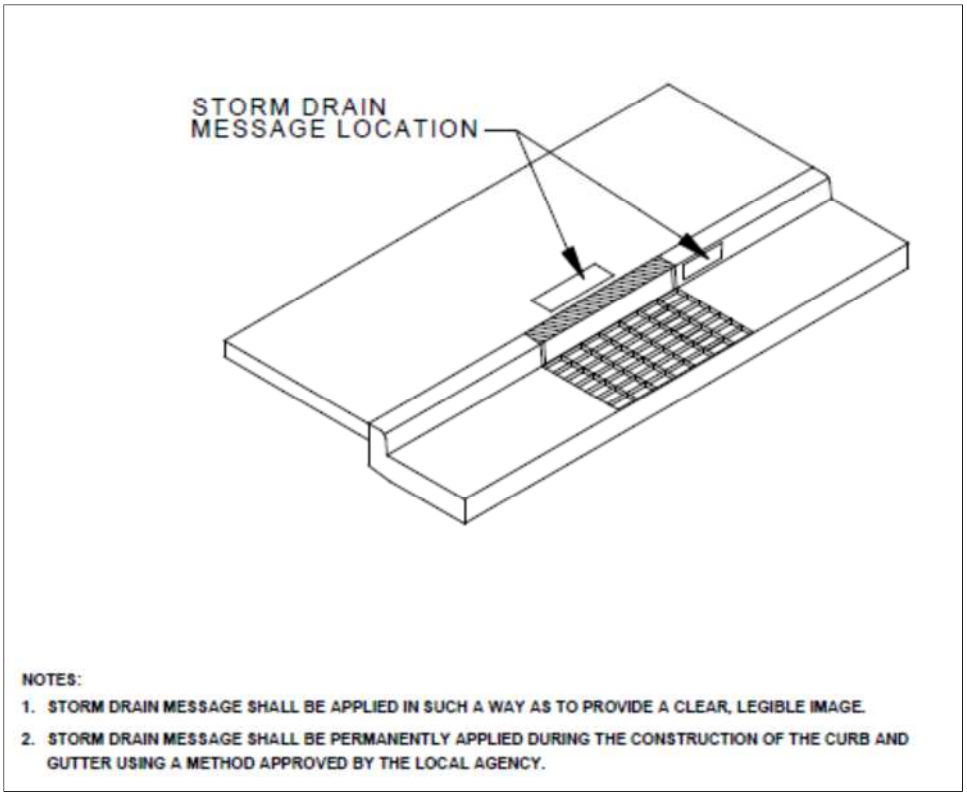


Figure D-1. Storm Drain Message Location – Curb Type Inlet

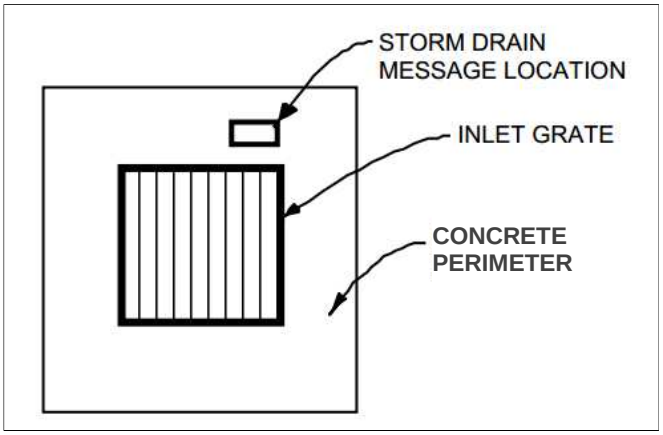


Figure D-2. Storm Drain Message Location – Catch Basin/Area Type Inlet

S-8: Landscape Irrigation Practices

Purpose

Irrigation runoff provides a pathway for pollutants (i.e., nutrients, bacteria, organics, sediment) to enter the storm drain system. By effectively irrigating, less runoff is produced resulting in less potential for pollutants to enter the storm drain system.

General Guidance

- Do not allow irrigation runoff from the landscaped area to drain directly to storm drain system.
- Minimize use of fertilizer, pesticides, and herbicides on landscaped areas.
- Plan sites with sufficient landscaped area and dispersal capacity (e.g., ability to receive irrigation water without generating runoff).
- Consult a landscape professional regarding appropriate plants, fertilizer, mulching applications, and irrigation requirements (if any) to ensure healthy vegetation growth.

Design Specifications

- Choose plants that minimize the need for fertilizer and pesticides.
- Group plants with similar water requirements and water accordingly.
- Use mulch to minimize evaporation and erosion.
- Include a vegetative boundary around project site to act as a filter.
- Design the irrigation system to only water areas that need it.
- Install an approved subsurface drip, pop-up, or other irrigation system.[1] The irrigation system should employ effective energy dissipation and uniform flow spreading methods to prevent erosion and facilitate efficient dispersion.
- Install rain sensors to shut off the irrigation system during and after storm events.
- Include pressure sensors to shut off flow-through system in case of sudden pressure drop. A sudden pressure drop may indicate a broken irrigation head or water line.
- If the hydraulic conductivity in the soil is not sufficient for the necessary water application rate, implement soil amendments to avoid potential geotechnical hazards (i.e., liquefaction, landslide, collapsible soils, and expansive soils).

[1] If alternative distribution systems (e.g., spray irrigation) are approved, the County will establish guidelines to implement these new systems.

- For sites located on or within 50 feet of a steep slope (15% or greater), do not irrigate landscape within three days of a storm event to avoid potential geotechnical instability.[2]
- Implement Integrated Pest Management practices.

For additional guidelines and requirements, refer to the Los Angeles County Department of Health Services.

Maintenance Requirements

Maintain irrigation areas to remove trash and debris and loose vegetation. Rehabilitate areas of bare soil. If a rain or pressure sensor is installed, it should be checked periodically to ensure proper function. Inspect and maintain irrigation equipment and components to ensure proper functionality. Clean equipment as necessary to prevent algae growth and vector breeding. Maintenance agreements between LACDPW and the owner/operator may be required. Failure to properly maintain building and property may subject the property owner to citation.

[2] As determined by the City of Los Angeles, Building and Safety Division

S-9: Building Materials Selection

Purpose

Building materials can potentially contribute pollutants of concern to stormwater runoff through leaching. For example, metal buildings, roofing, and fencing materials may be significant sources of metals in stormwater runoff, especially due to acidic precipitation. The use of alternative building materials can reduce pollutant sources in stormwater runoff by eliminating compounds that can leach into stormwater runoff. Alternative building materials may also reduce the need to perform maintenance activities (i.e., painting) that involve pollutants of concern, and may reduce the volume of stormwater runoff. Alternative materials are available to replace lumber and paving.

Design Specifications

Lumber

Decks and other house components constructed using pressure-treated wood that is typically treated using arsenate, copper, and chromium compounds are hazardous to the environment. Pressure-treated wood may be replaced with cement-fiber or vinyl.

Roofs, Fencing, and Metals

Minimizing the use of copper and galvanized (zinc-coated) metals on buildings and fencing can reduce leaching of these pollutants into stormwater runoff. The following building materials are conventionally made of galvanized metals:

- Metal roofs;
- Chain-link fencing and siding; and
- Metal downspouts, vents, flashing, and trim on roofs.

Architectural use of copper for roofs and gutters should be avoided. As an alternative to copper and galvanized materials, coated metal products are available for both roofing and gutter application. Vinyl-coated fencing is an alternative to traditional galvanized chain-link fences. These products eliminate contact of bare metal with precipitation or stormwater runoff, and reduce the potential for stormwater runoff contamination. Roofing materials are also made of recycled rubber and plastic.

Green roofs may be an option. Green roofs use vegetation such as grasses and other plants as an exterior surface. The plants reduce the velocity of stormwater runoff and absorb water to reduce the volume of stormwater runoff. One potential problem with using green roofs in the Los Angeles County area is the long, hot and dry summers, which may kill the plants if they are not watered. See the Green Roof Fact Sheet (RET-7) in Appendix E.

Pesticides

The use of pesticides around foundations can be reduced through the use of alternative barriers. Sand barriers can be applied around foundations to deter termites, as they cannot tunnel through sand. Metal shields also block termites from tunneling. Additionally, diatomaceous earth can be used to repel or kill a wide variety of other pests.

Maintenance Requirements

The integrity of structural elements that are subject to damage (e.g., signs) must be maintained by the owner/operator as required by local codes and ordinances. Maintenance agreements between LACDPW and the owner/operator may be required. Failure to properly maintain building and property may subject the property owner to citation.

Attachment 6:
Drywell Calculations

DMA 1
Drywell Calculation

Project: Willowbrook Wellness Center - Los Angeles, CA

Contact: Joselyn Perales at KPFF - Los Angeles, CA

Given:

Measured Infiltration Rate	2.3	in/hr
Safety Factor	2.00	
Design Infiltration Rate	1.16	in/hr
Mitigated Volume	8,522	cf
Required Drawdown Time	96	hours
Min. Depth to Infiltration	15	ft
Groundwater Depth for Design	50	ft

Proposed:

Drywell Rock Shaft Diameter	4	ft
Drywell Chamber Depth	15	ft
Rock Porosity	40	%
Depth to Infiltration	15	ft
Drywell Bottom Depth	40	ft

Apply Safety Factor to get Design Rate.

$1.12 \ \frac{in}{hr} \div 2 = 0.56 \ \frac{in}{hr}$

Convert Design Rate from in/hr to ft/sec.

$0.56 \ \frac{in}{hr} \times \frac{1 \ ft}{12 \ in} \times \frac{1 \ hr}{3600 \ sec} = 0.0000129630 \ \frac{ft}{sec}$

A 4 foot diameter drywell provides 12.57 SF of infiltration area per foot of depth, plus 12.57 SF at the bottom.

For a 40 foot deep drywell, infiltration occurs between 15 feet and 40 feet below grade. This provides 25 feet of infiltration depth in addition to the bottom area. Infiltration area per drywell is calculated below.

$$(25 \ ft \times 12.57 \ \frac{ft^2}{ft}) + 12.57 \ ft^2 = 326.73 \ ft^2$$

Combine design rate with infiltration area to get infiltration flowrate for each drywell.

$0.0000129630 \ \frac{ft}{sec} \times 326.73 \ ft^2 = 0.0042 \ \frac{ft^3}{sec}$

Infiltration volume for each drywell based on various time frames are included below.

96 hrs: $0.0042 \times 96 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 1463.73$ cubic feet of water infiltrated.

3 hrs: $0.0042 \times 3 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 45.74$ cubic feet of water infiltrated.

Chamber diameter = 4 feet. Drywell rock shaft diameter = 4 feet.

Volume provided in each drywell with chamber depth of 15 feet

$$(15 \ ft \times 12.57 \ ft^2) + (15 \ ft \times 12.57 \ ft^2 \times 40 \ \%) = 263.97 \ ft^3$$

The proposed MaxWell System is composed of 4 drywell(s) .

Total volume provided = 264 ft^3

Total 3 hour infiltration volume = 46 ft^3

Total 96 hour infiltration volume = 1464 ft^3

Total infiltration flowrate = 0.0042 $\frac{ft^3}{sec}$

The volume stored 264 CF and infiltrated within 3 hours 46 CF in the MaxWell System is 310 CF

DMA 1 has (4) drywells which results in 1,240 CF. Detention storage tank required is 7,282 CF.
Detention storage tank provided is 7,339.
Total storage is 8,579 CF which exceeds the 85th percentile required volume 8,522 CF.

DMA 2
Drywell Calculation

Project: Willowbrook Wellness Center - Los Angeles, CA

Contact: Joselyn Perales at KPFF - Los Angeles, CA

Given:

Measured Infiltration Rate	2.3	in/hr
Safety Factor	2.00	
Design Infiltration Rate	1.16	in/hr
Mitigated Volume	12,310	cf
Required Drawdown Time	96	hours
Min. Depth to Infiltration	15	ft
Groundwater Depth for Design	50	ft

Proposed:

Drywell Rock Shaft Diameter	4	ft
Drywell Chamber Depth	15	ft
Rock Porosity	40	%
Depth to Infiltration	15	ft
Drywell Bottom Depth	40	ft

Apply Safety Factor to get Design Rate.

$1.12 \ \frac{in}{hr} \div 2 = 0.56 \ \frac{in}{hr}$

Convert Design Rate from in/hr to ft/sec.

$0.56 \ \frac{in}{hr} \times \frac{1 \ ft}{12 \ in} \times \frac{1 \ hr}{3600 \ sec} = 0.0000129630 \ \frac{ft}{sec}$

A 4 foot diameter drywell provides 12.57 SF of infiltration area per foot of depth, plus 12.57 SF at the bottom.

For a 40 foot deep drywell, infiltration occurs between 15 feet and 40 feet below grade. This provides 25 feet of infiltration depth in addition to the bottom area. Infiltration area per drywell is calculated below.

$$(25 \ ft \times 12.57 \ \frac{ft^2}{ft}) + 12.57 \ ft^2 = 326.73 \ ft^2$$

Combine design rate with infiltration area to get infiltration flowrate for each drywell.

$0.0000129630 \ \frac{ft}{sec} \times 326.73 \ ft^2 = 0.0042 \ \frac{ft^3}{sec}$

Infiltration volume for each drywell based on various time frames are included below.

96 hrs: $0.0042 \times 96 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 1463.73$ cubic feet of water infiltrated.

3 hrs: $0.0042 \times 3 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 45.74$ cubic feet of water infiltrated.

Chamber diameter = 4 feet. Drywell rock shaft diameter = 4 feet.

Volume provided in each drywell with chamber depth of 15 feet

$$(15 \ ft \times 12.57 \ ft^2) + (15 \ ft \times 12.57 \ ft^2 \times 40 \ \%) = 263.97 \ ft^3$$

The proposed MaxWell System is composed of 4 drywell(s) .

Total volume provided = 264 ft^3

Total 3 hour infiltration volume = 46 ft^3

Total 96 hour infiltration volume = 1464 ft^3

Total infiltration flowrate = 0.0042 $\frac{ft^3}{sec}$

The volume stored 264 CF and infiltrated within 3 hours 46 CF in the MaxWell System is 310 CF

DMA 2 has (6) drywells which results in 1,860 CF. Detention storage tank required is 10,450 CF.
Detention storage tank provided is 10,518 CF.
Total storage is 12,378 CF which exceeds the 85th percentile required volume 12,310 CF.

DMA 3
Drywell Calculation

Project: Willowbrook Wellness Center - Los Angeles, CA
Contact: Joselyn Perales at KPFF - Los Angeles, CA

Given:

Measured Infiltration Rate	2.3	in/hr
Safety Factor	2.00	
Design Infiltration Rate	1.16	in/hr
Mitigated Volume	4,319	cf
Required Drawdown Time	96	hours
Min. Depth to Infiltration	15	ft
Groundwater Depth for Design	50	ft

Proposed:

Drywell Rock Shaft Diameter	4	ft
Drywell Chamber Depth	15	ft
Rock Porosity	40	%
Depth to Infiltration	15	ft
Drywell Bottom Depth	40	ft

Apply Safety Factor to get Design Rate.

$1.12 \ \frac{in}{hr} \div 2 = 0.56 \ \frac{in}{hr}$

Convert Design Rate from in/hr to ft/sec.

$0.56 \ \frac{in}{hr} \times \frac{1 \ ft}{12 \ in} \times \frac{1 \ hr}{3600 \ sec} = 0.0000129630 \ \frac{ft}{sec}$

A 4 foot diameter drywell provides 12.57 SF of infiltration area per foot of depth, plus 12.57 SF at the bottom.

For a 40 foot deep drywell, infiltration occurs between 15 feet and 40 feet below grade. This provides 25 feet of infiltration depth in addition to the bottom area. Infiltration area per drywell is calculated below.

$$(25 \ ft \times 12.57 \ \frac{ft^2}{ft}) + 12.57 \ ft^2 = 326.73 \ ft^2$$

Combine design rate with infiltration area to get infiltration flowrate for each drywell.

$0.0000129630 \ \frac{ft}{sec} \times 326.73 \ ft^2 = 0.0042 \ \frac{ft^3}{sec}$

Infiltration volume for each drywell based on various time frames are included below.

96 hrs: $0.0042 \times 96 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 1463.73$ cubic feet of water infiltrated.

3 hrs: $0.0042 \times 3 \text{ hours} \times \frac{3600 \ sec}{1 \ hr} = 45.74$ cubic feet of water infiltrated.

Chamber diameter = 4 feet. Drywell rock shaft diameter = 4 feet.

Volume provided in each drywell with chamber depth of 15 feet

$$(15 \ ft \times 12.57 \ ft^2) + (15 \ ft \times 12.57 \ ft^2 \times 40 \ \%) = 263.97 \ ft^3$$

The proposed MaxWell System is composed of 4 drywell(s) .

Total volume provided = 264 ft^3

Total 3 hour infiltration volume = 46 ft^3

Total 96 hour infiltration volume = 1464 ft^3

Total infiltration flowrate = 0.0042 $\frac{ft^3}{sec}$

The volume stored 264 CF and infiltrated within 3 hours 46 CF in the MaxWell System is 310 CF

DMA 3 has (2) drywells which results in 620 CF. Detention storage tank required is 3,699 CF.
Detention storage tank provided is 3,770 CF.
Total storage is 4,390 CF which exceeds the 85th percentile required volume 4,319 CF.

DMA 4
Drywell Calculation

Project: Willowbrook Wellness Center - Los Angeles, CA

Contact: Joselyn Perales at KPFF - Los Angeles, CA

Given:

Measured Infiltration Rate	2.3	in/hr
Safety Factor	2.00	
Design Infiltration Rate	1.16	in/hr
Mitigated Volume	2,535	cf
Required Drawdown Time	96	hours
Min. Depth to Infiltration	15	ft
Groundwater Depth for Design	50	ft

Proposed:

Drywell Rock Shaft Diameter	4	ft
Drywell Chamber Depth	15	ft
Rock Porosity	40	%
Depth to Infiltration	15	ft
Drywell Bottom Depth	40	ft

Apply Safety Factor to get Design Rate.

$1.12 \ \frac{in}{hr} \div 2 = 0.56 \ \frac{in}{hr}$

Convert Design Rate from in/hr to ft/sec.

$0.56 \ \frac{in}{hr} \times \frac{1 \ ft}{12 \ in} \times \frac{1 \ hr}{3600 \ sec} = 0.0000129630 \ \frac{ft}{sec}$

A 4 foot diameter drywell provides 12.57 SF of infiltration area per foot of depth, plus 12.57 SF at the bottom.

For a 40 foot deep drywell, infiltration occurs between 15 feet and 40 feet below grade. This provides 25 feet of infiltration depth in addition to the bottom area. Infiltration area per drywell is calculated below.

$$(25 \ ft \times 12.57 \ \frac{ft^2}{ft}) + 12.57 \ ft^2 = 326.73 \ ft^2$$

Combine design rate with infiltration area to get infiltration flowrate for each drywell.

$0.0000129630 \ \frac{ft}{sec} \times 326.73 \ ft^2 = 0.0042 \ \frac{ft^3}{sec}$

Infiltration volume for each drywell based on various time frames are included below.

96 hrs: 0.0042 x 96 hours x $\frac{3600 \ sec}{1 \ hr}$ = 1463.73 cubic feet of water infiltrated.

3 hrs: 0.0042 x 3 hours x $\frac{3600 \ sec}{1 \ hr}$ = 45.74 cubic feet of water infiltrated.

Chamber diameter = 4 feet. Drywell rock shaft diameter = 4 feet.

Volume provided in each drywell with chamber depth of 15 feet

$$(15 \ ft \times 12.57 \ ft^2) + (15 \ ft \times 12.57 \ ft^2 \times 40 \ \%) = 263.97 \ ft^3$$

The proposed MaxWell System is composed of 4 drywell(s) .

Total volume provided = 264 ft^3

Total 3 hour infiltration volume = 46 ft^3

Total 96 hour infiltration volume = 1464 ft^3

Total infiltration flowrate = 0.0042 $\frac{ft^3}{sec}$

The volume stored 264 CF and infiltrated within 3 hours 46 CF in the MaxWell System is 310 CF

DMA 4 has (5) drywells which results in 1,550 CF. Detention storage tank required is 985 CF.
Detention storage tank provided is 1,018 CF.
Total storage is 2,568 CF which exceeds the 85th percentile required volume 2,535 CF.

Attachment 7:
Geotechnical Report

Geotechnologies, Inc.
Consulting Geotechnical Engineers
439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

Celebrating 50 YEARS OF SERVICE 1971-2021

November 11, 2021
File Number 22193

CDU/MLK Wellness Collaborative, LLC
1731 East 120th Street
Los Angeles, California 90059

Attention: Carl McLaney

Subject: Geotechnical Engineering Investigation
Proposed Wellness Campus
1667 East 118th Street and 1660 Block of East 117th Street
Willowbrook, California

Dear Mr. McLaney:

This letter transmits the Geotechnical Engineering Investigation for the subject site prepared by Geotechnologies, Inc. This report provides geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, excavations and foundation design. Engineering for the proposed project should not begin until approval of the geotechnical investigation is granted by the local building official. Significant changes in the geotechnical recommendations may result due to the building department review process.

The validity of the recommendations presented herein is dependent upon review of the geotechnical aspects of the project during construction by this firm. The subsurface conditions described herein have been projected from limited subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

REGISTERED PROFESSIONAL ENGINEER
GREGORIO VARELA
No. 81201
Exp. 9/30/23
CIVIL
STATE OF CALIFORNIA

GREGORIO VARELA
R.C.E. 81201

GV:km

Distribution: (3) The Pinyon Group; Attn: Hollie Williams

Email to: [hwilliams@thepinyongroup.com]

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Corrosivity Report by Project X (31 pages)

in the walls. Proper site drainage is critical to the performance of any structure in the built environment.

Percolation Testing

In order to determine the feasibility of on-site stormwater infiltration, percolation testing was conducted in Borings B11 and B12, following the procedure for boring percolation test provided in the Guidelines for Design, Investigation and Reporting Low Impact Development Stormwater Infiltration (GS200.1), dated June 30, 2021, presented in the Administrative Manual for the County of Los Angeles, Department of Public Works, Geotechnical and Material Engineering Division.

The location of Borings B11 and B12 is shown on the enclosed Plot Plan. These borings were drilled to a depth of 10 feet below the existing grade with the aid of a truck-mounted drilling machine using 8-inch diameter hollowstem augers. At the completion of drilling, a 2-inch diameter casing was placed within the center of the borehole for the purpose of conducting percolation testing. The casing consisted of a slotted PVC pipe within the lower 5 feet of the borehole, and solid PVC pipe to the top of the borehole. A sand pack consisting of #2 Monterey Sand was poured into the annular space around the slotted portion of the casing. A 1-foot thick, hydrated bentonite seal was placed over the sand and drill cuttings were placed to the ground surface.

Prior to testing, the borehole was filled with water for the purpose of pre-soaking for 2 hours. After presoaking, the borehole was refilled with water, and the rate of drop in the water level was measured. The percolation test readings were recorded a minimum of 8 times or until a stabilized rate of drop was obtained, whichever occurred first.

The table below summarizes the results of the infiltration rate derived from the testing. This rate includes correction factors (RF_t, RF_v, and RF_s), as required by the County of Los Angeles procedure. Field readings and calculations for the percolation testing are included in the Appendix.

Boring No.	Depth of Boring Below Existing Ground Surface (ft.)	Percolation Testing Conducted Between Depths (ft.)	Infiltration Rate (in./hr.)
B11	10	5 to 10	1.12
B12	10	5 to 10	1.16

Recommendations

Based on the results of the exploration, testing and research, it is the finding of this firm that on-site stormwater infiltration is feasible from a geotechnical standpoint. The design and location of any potential infiltration system has not been specifically addressed. Once a type of infiltration system, as well as its location, has been selected, this should be reviewed by this office to determine if supplemental recommendations are needed. Due to the large site area, supplemental percolation testing may be required to obtain the stormwater infiltration rates at specific locations.

The potential infiltration system is not expected to impact the neighboring or proposed developments, provided the advice and recommendations presented herein are implemented during design and construction. The onsite soils are in the low to moderate range, and are not susceptible to significant hydroconsolidation. The current groundwater level was observed during exploration below a depth of 50½ feet below grade.

Based on a site-specific liquefaction analysis, it has been determined that the site is considered susceptible to liquefaction. However, the liquefaction analysis was based on the historically highest groundwater level of 9 feet. Therefore, allowing stormwater infiltration below a depth of 9 feet would not increase the susceptibility of the site soils to liquefaction issues.

The potential infiltration system shall be located outside the proposed structures. The edge of the potential infiltration system shall maintain a minimum horizontal setback distance of 20 feet away from any proposed or existing structure, and 15 feet away from a private property line. The proposed stormwater infiltration system should be designed to infiltrate below a depth of 9 feet below the existing grade. Stormwater infiltration must be conducted a minimum of 10 feet above the groundwater level. Therefore the bottom of the stormwater infiltration system shall not extend below a depth of 40½ feet below the existing grade.

The proposed infiltration system should be provided with overflow protection. Once the device is full of water, additional water flowing to the device should be diverted to another acceptable disposal area, or disposed offsite in an acceptable manner.

Based on the nature of the underlying native soils, the stormwater should percolate in a generally vertical manner. The potential for creating a perched water condition is considered to be small. It is the opinion of this firm that, if the recommendations provided herein are followed, the proposed stormwater infiltration systems should not cause any damage, settlement, or adversely affect any buildings located on or off-site.

The design and construction of stormwater infiltration facilities is not the responsibility of the geotechnical engineer. However, based on the experience of this firm, it is recommended that several aspects of the use of such facilities should be considered by the design and construction team:

- Open infiltration basins have many negative associated issues. Such a design must consider attractive nuisance, impacts to growing vegetation, impacts to air quality and vector control.

- All infiltration devices should be provided with overflow protection. Once the device is full of water, additional water flowing to the device should be diverted to another acceptable disposal area, or disposed offsite in an acceptable manner.

- All connections associated with stormwater infiltration devices should be sealed and water-tight. Water leaking into the subgrade soils can lead to loss of strength, piping, erosion, settlement and/or expansion of the effected earth materials.

- Excavations proposed for the installation of stormwater facilities should comply with the "Temporary Excavations" sections of this report, as well as CalOSHA Regulations where applicable.

DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Building Official is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnologies, Inc. at least twenty-four hours prior to any required site visit.

Date: 6-Oct-21
File No. 22193
File Name : CDU/MLK

Percolation Rate Calculation for Small Diameter Boring

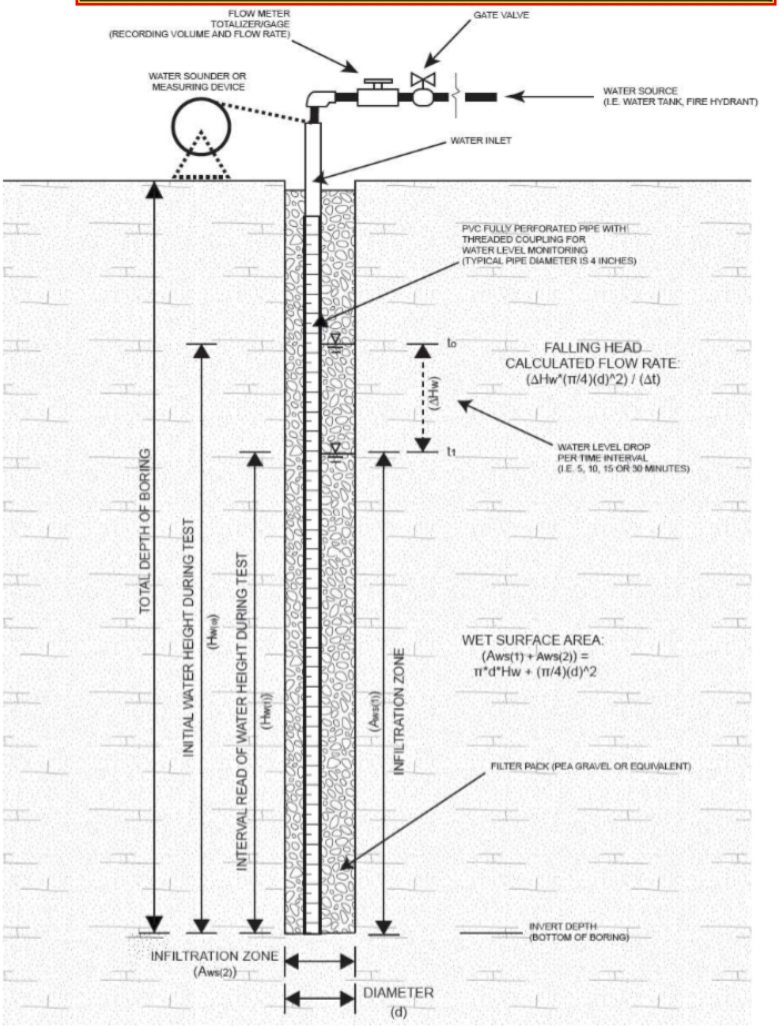
Testing Well Number 11
Boring Diameter (DIA) 8 inches
Depth of Boring 10 feet
Pre-soak Time 2 hours
Measured By G.V.

Reading Number	Clock Time	Elapsed Time	Water Measurement (d_i) and (d_f)	Water Level Drop	Rate of Drop Variation		Flow Rate	Wet Surface Area	Pre-Adjusted Infiltration Rate
		Min	feet	in	%		in^3/hr	in^2	in/hr
1	10:15		5.00						
	10:45	30	7.00	24.00			2412.7	955.0	2.5
2	10:50		5.00						
	11:20	30	7.00	24.00	0.00		2412.7	955.0	2.5
3	11:22		5.00						
	11:52	30	6.95	23.40	-2.56		2352.4	970.1	2.4
4	12:42		5.00						
	13:12	30	6.90	22.80	-2.63		2292.1	985.2	2.3
5	13:15		5.00						
	13:45	30	6.87	22.44	-1.60		2255.9	994.3	2.3
6	13:50		5.00						
	14:20	30	6.85	22.20	-1.08		2231.8	1000.3	2.2
7									
8									

Note: Calculation based on County of Los Angeles, Administrative Manual, Low Impact Development Best Management PracticeGuideline for Design, Investigation, and Reporting, dated 6/30/21.
LA County Minimum 0.3 Inches per hour

Raw Percolation Rate= 2.2 in/hr
RF_t= 2
RF_v= 1
RF_s= 1

Design Infiltration Rate = 1.12 in/hr



Appendix H
Noise Assumptions and Modeling

Exhibit A
Ambient Noise Data

Summary

File Name on Meter	LxT_Data.245.s
File Name on PC	LxT_0004983-20230731 095646-LxT_Data.245.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-07-31 09:56:46
Stop	2023-07-31 10:11:46
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-07-31 07:34:08
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z
Under Range Peak	99.3	96.3	**101.3** dB
Under Range Limit	**36.6**	36.2	43.2 dB
Noise Floor	27.4	27.1	34.1 dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	60.7	
LASE	90.3	
EAS	117.781 µPa²h	
EAS8	3.769 mPa²h	
EAS40	18.845 mPa²h	
$LZ_{peak\ (max)}$	2023-07-31 10:00:42	99.7 dB
LAS_{max}	2023-07-31 10:03:21	73.5 dB
LAS_{min}	2023-07-31 10:08:55	55.8 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	70.4 dB
LA_{Seq}	60.7 dB
LC_{Seq} - LA_{Seq}	9.6 dB
LAI_{eq}	63.7 dB
LA_{eq}	60.7 dB
LAI_{eq} - LA_{eq}	3.0 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	60.7					
$L_{S(max)}$	73.5	2023/07/31 10:03:21				
$L_{S(min)}$	55.8	2023/07/31 10:08:55				
$L_{Peak(max)}$					99.7	2023/07/31 10:00:42

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94 %
Projected Dose	-99.94	-99.94 %
TWA (Projected)	-99.9	-99.9 dB
TWA (t)	-99.9	-99.9 dB
Lep (t)	45.7	45.7 dB

Statistics

LAS 5.00	64.1 dB
LAS 10.00	62.0 dB
LAS 33.30	60.0 dB
LAS 50.00	59.5 dB
LAS 66.60	58.9 dB
LAS 90.00	57.7 dB

Summary

File Name on Meter	LxT_Data.244.s
File Name on PC	LxT_0004983-20230731 093654-LxT_Data.244.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description		
Start	2023-07-31	09:36:54
Stop	2023-07-31	09:51:54
Duration		00:15:00.0
Run Time		00:15:00.0
Pause		00:00:00.0
Pre-Calibration	2023-07-31	07:34:08
Post-Calibration		None
Calibration Deviation		---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z
Under Range Peak	99.3	96.3	**101.3** dB
Under Range Limit	**36.6**	36.2	43.2 dB
Noise Floor	27.4	27.1	34.1 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	60.4	
LASE	90.0	
EAS	110.389	µPa²h
EAS8	3.532	mPa²h
EAS40	17.662	mPa²h
LZpeak (max)	2023-07-31 09:45:26	96.3 dB
LASmax	2023-07-31 09:49:13	72.5 dB
LASmin	2023-07-31 09:49:02	55.8 dB
SEA	-99.9	dB

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

LCSeq	71.4	dB
LASeq	60.4	dB
LCSeq - LASeq	11.0	dB
LAIeq	62.5	dB
LAeq	60.4	dB
LAIeq - LAeq	2.1	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	60.4					
LS(max)	72.5	2023/07/31 9:49:13				
LS(min)	55.8	2023/07/31 9:49:02				
LPeak(max)					96.3	2023/07/31 9:45:26

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94	%
Projected Dose	-99.94	-99.94	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	45.4	45.4	dB

Statistics

LAS 5.00	63.3	dB
LAS 10.00	62.2	dB
LAS 33.30	59.9	dB
LAS 50.00	59.2	dB
LAS 66.60	58.6	dB
LAS 90.00	57.5	dB

Summary

File Name on Meter	LxT_Data.241.s
File Name on PC	LxT_0004983-20230731 085023-LxT_Data.241.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description		
Start	2023-07-31	08:50:23
Stop	2023-07-31	09:05:23
Duration		00:15:00.0
Run Time		00:15:00.0
Pause		00:00:00.0
Pre-Calibration	2023-07-31	07:34:08
Post-Calibration		None
Calibration Deviation		---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z
Under Range Peak	99.3	96.3	**101.3** dB
Under Range Limit	**36.6**	36.2	43.2 dB
Noise Floor	27.4	27.1	34.1 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	61.6	
LASE	91.1	
EAS	144.236	µPa²h
EAS8	4.616	mPa²h
EAS40	23.078	mPa²h
LZpeak (max)	2023-07-31 08:58:10	99.6 dB
LASmax	2023-07-31 08:58:10	80.5 dB
LASmin	2023-07-31 09:03:17	51.1 dB
SEA	-99.9	dB

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

LCSeq	70.5	dB
LASeq	61.6	dB
LCSeq - LASeq	8.9	dB
LAIeq	64.3	dB
LAeq	61.6	dB
LAIeq - LAeq	2.7	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	61.6					
LS(max)	80.5	2023/07/31 8:58:10				
LS(min)	51.1	2023/07/31 9:03:17				
LPeak(max)					99.6	2023/07/31 8:58:10

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	0.00 %
Projected Dose	-99.94	0.01 %
TWA (Projected)	-99.9	26.2 dB
TWA (t)	-99.9	1.2 dB
Lep (t)	46.5	46.5 dB

Statistics

LAS 5.00	67.3	dB
LAS 10.00	65.0	dB
LAS 33.30	57.8	dB
LAS 50.00	55.9	dB
LAS 66.60	54.8	dB
LAS 90.00	53.2	dB

Summary

File Name on Meter	LxT_Data.240.s
File Name on PC	LxT_0004983-20230731 083155-LxT_Data.240.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-07-31 08:31:55
Stop	2023-07-31 08:46:55
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-07-31 07:34:08
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z
Under Range Peak	99.3	96.3	**101.3** dB
Under Range Limit	**36.6**	36.2	43.2 dB
Noise Floor	27.4	27.1	34.1 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	69.7	
LASE	99.3	
EAS	940.600 µPa²h	
EAS8	30.099 mPa²h	
EAS40	150.496 mPa²h	
LZpeak (max)	2023-07-31 08:37:36	116.6 dB
LASmax	2023-07-31 08:36:50	90.2 dB
LASmin	2023-07-31 08:42:55	56.2 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	2	3.8 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

LCSeq	76.5 dB
LASeq	69.7 dB
LCSeq - LASeq	6.8 dB
LAIeq	76.6 dB
LAeq	69.7 dB
LAIeq - LAeq	6.8 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	69.7					
LS(max)	90.2	2023/07/31 8:36:50				
LS(min)	56.2	2023/07/31 8:42:55				
LPeak(max)					116.6	2023/07/31 8:37:36

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	0.00	0.01 %
Projected Dose	0.02	0.40 %
TWA (Projected)	29.4	50.2 dB
TWA (t)	4.4	25.2 dB
Lep (t)	54.7	54.7 dB

Statistics

LAS 5.00	74.2 dB
LAS 10.00	72.2 dB
LAS 33.30	67.5 dB
LAS 50.00	65.5 dB
LAS 66.60	63.2 dB
LAS 90.00	59.6 dB

Summary

File Name on Meter	LxT_Data.246.s
File Name on PC	LxT_0004983-20230731 101754-LxT_Data.246.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-07-31 10:17:54
Stop	2023-07-31 10:32:54
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-07-31 07:34:08
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z
Under Range Peak	99.3	96.3	**101.3** dB
Under Range Limit	**36.6**	36.2	43.2 dB
Noise Floor	27.4	27.1	34.1 dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	54.1	
LASE	83.7	
EAS	25.831	µPa²h
EAS8	826.595	µPa²h
EAS40	4.133	mPa²h
$LZ_{peak\ (max)}$	2023-07-31 10:19:07	98.9 dB
LAS_{max}	2023-07-31 10:17:55	67.4 dB
LAS_{min}	2023-07-31 10:28:21	48.6 dB
SEA	-99.9	dB

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	67.8	dB
LA_{Seq}	54.1	dB
LC_{Seq} - LA_{Seq}	13.7	dB
LAI_{eq}	57.7	dB
LA_{eq}	54.1	dB
LAI_{eq} - LA_{eq}	3.6	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	54.1					
$L_{S(max)}$	67.4	2023/07/31 10:17:55				
$L_{S(min)}$	48.6	2023/07/31 10:28:21				
$L_{Peak(max)}$					98.9	2023/07/31 10:19:07

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94	%
Projected Dose	-99.94	-99.94	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	39.1	39.1	dB

Statistics

LAS 5.00	57.1	dB
LAS 10.00	56.0	dB
LAS 33.30	53.8	dB
LAS 50.00	53.0	dB
LAS 66.60	52.2	dB
LAS 90.00	50.8	dB

Summary

File Name on Meter	LxT_Data.243.s
File Name on PC	LxT_0004983-20230731 091410-LxT_Data.243.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description		
Start	2023-07-31	09:14:10
Stop	2023-07-31	09:29:10
Duration		00:15:00.0
Run Time		00:15:00.0
Pause		00:00:00.0
Pre-Calibration	2023-07-31	07:34:08
Post-Calibration		None
Calibration Deviation		---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	143.3 dB

	A	C	Z	
Under Range Peak	99.3	96.3	**101.3**	dB
Under Range Limit	**36.6**	36.2	43.2	dB
Noise Floor	27.4	27.1	34.1	dB

	First	Second	Third
Instrument Identification			

Results

LASeq	58.7		
LASE	88.3		
EAS	74.776	µPa²h	
EAS8	2.393	mPa²h	
EAS40	11.964	mPa²h	
LZpeak (max)	2023-07-31 09:18:27	101.9	dB
LASmax	2023-07-31 09:14:30	68.4	dB
LASmin	2023-07-31 09:28:24	54.7	dB
SEA	-99.9	dB	

	Exceedance Counts	Duration	
LAS > 85.0 dB	0	0.0	s
LAS > 115.0 dB	0	0.0	s
LZpeak > 135.0 dB	0	0.0	s
LZpeak > 137.0 dB	0	0.0	s
LZpeak > 140.0 dB	0	0.0	s

LCSeq	69.6	dB
LASeq	58.7	dB
LCSeq - LASeq	10.9	dB
LAIeq	61.3	dB
LAeq	58.7	dB
LAIeq - LAeq	2.5	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	58.7					
LS(max)	68.4	2023/07/31 9:14:30				
LS(min)	54.7	2023/07/31 9:28:24				
LPeak(max)					101.9	2023/07/31 9:18:27

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.94	-99.94	%
Projected Dose	-99.94	-99.94	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	43.7	43.7	dB

Statistics

LAS 5.00	62.5	dB
LAS 10.00	61.0	dB
LAS 33.30	58.1	dB
LAS 50.00	57.4	dB
LAS 66.60	56.8	dB
LAS 90.00	55.9	dB

Exhibit B

Construction and Vibration Noise Calculations

Stationary Construction Noise Calculations

CMWC | Exceedance | 48.2 | 88.0

On-Site Construction Noise Summary Stationary

Highlighted Cells Represent Areas changed to represent new data/changed values from previous revision.

Construction Phase		Noise Level Threshold[a]	Construction Phase - Combined Noise Level without Los Angeles County Code Compliance (dBA Lmax)[b]						Construction Phase - Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[c]						Construction Noise Technique Attenuation						Noise Levels after Construction Noise Technique Attenuation and Compliance with LA Code						Noise Level Threshold Exceeded?					
			Demolition	Site Prep/Hydroseeding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydroseeding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydroseeding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydroseeding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydroseeding	Grading	Building Construction	Paving	Architectural Coating
Phase 0	R1	65.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
	R2	65.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
	R3	65.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
	R4	65.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
	R5	60.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
	R6	65.0		65.0						57.0						57.0						57.0					No	No	No	No	No	No
Phase 1	R1	65.0				62.6		62.9				54.6		54.9								54.6		54.9	No	No	No	No	No	No
	R2	65.0				60.9		60.3				52.9		52.3								52.9		52.3	No	No	No	No	No	No
	R3	65.0				67.2		70.8				59.2		62.8								59.2		62.8	No	No	No	No	No	No
	R4	65.0				57.0		56.6				49.0		48.6								49.0		48.6	No	No	No	No	No	No
	R5	60.0				63.4		62.4				55.4		54.4								54.4		54.4	No	No	No	No	No	No
	R6	65.0				64.8		71.4				56.8		63.4								56.8		63.4	No	No	No	No	No	No
Phase 2	R1	65.0						59.5						51.5										51.5	No	No	No	No	No	No
	R2	65.0						56.7						48.7										48.7	No	No	No	No	No	No
	R3	65.0						79.2						71.2						-6.2				65.0	No	No	No	No	No	No
	R4	65.0						61.9						53.9										53.9	No	No	No	No	No	No
	R5	60.0						68.0						60.0										60.0	No	No	No	No	No	No
	R6	65.0						57.1						49.1										49.1	No	No	No	No	No	No
Phase 3	R1	65.0						62.5						54.5										54.5	No	No	No	No	No	No
	R2	65.0						58.9						50.9										50.9	No	No	No	No	No	No
	R3	65.0						67.7						59.7										59.7	No	No	No	No	No	No
	R4	65.0						61.9						53.9										53.9	No	No	No	No	No	No
	R5	60.0						67.9						60.0						-7.9				60.0	No	No	No	No	No	No
	R6	65.0						57.1						49.1										49.1	No	No	No	No	No	No
Phase 4	R1	65.0				74.2		80.0				66.2		72.0				-1.2		-7.0		65.0		65.0	No	No	No	No	No	No
	R2	65.0				60.9		59.6				52.9		51.6								52.9		51.6	No	No	No	No	No	No
	R3	65.0				60.4		58.9				52.4		50.9								52.4		50.9	No	No	No	No	No	No
	R4	65.0				60.8		59.6				52.8		51.6								52.8		51.6	No	No	No	No	No	No
	R5	60.0				74.7		80.9				66.7		72.9				-6.7		-12.9		60.0		60.0	No	No	No	No	No	No
	R6	65.0				56.4		58.4				50.4		48.4								50.4		48.4	No	No	No	No	No	No
Phase 5	R1	65.0				62.3		54.3						54.3										54.3	No	No	No	No	No	No
	R2	65.0				62.2		54.2						54.2										54.2	No	No	No	No	No	No
	R3	65.0				62.9		54.9						54.9										54.9	No	No	No	No	No	No
	R4	65.0				57.4		54.4						47.4										47.4	No	No	No	No	No	No
	R5	60.0				64.0		56.0						56.0										56.0	No	No	No	No	No	No
	R6	65.0				61.9		53.9						53.9										53.9	No	No	No	No	No	No
Phase 6	R1	65.0						59.3						51.3										51.3	No	No	No	No	No	No
	R2	65.0						54.7						46.7										46.7	No	No	No	No	No	No
	R3	65.0						79.2						71.2						-6.2				65.0	No	No	No	No	No	No
	R4	65.0						68.9						60.9										60.9	No	No	No	No	No	No
	R5	60.0						66.9						58.9										58.9	No	No	No	No	No	No
	R6	65.0						54.9						46.9										46.9	No	No	No	No	No	No
Phase 7	R1	65.0						62.4						54.4										54.4	No	No	No	No	No	No
	R2	65.0						54.9						46.9										46.9	No	No	No	No	No	No
	R3	65.0						68.4						60.4										60.4	No	No	No	No	No	No
	R4	65.0						68.9						60.9										60.9	No	No	No	No	No	No
	R5	60.0						78.4						70.4						-10.4				60.0	No	No	No	No	No	No
	R6	65.0						54.9						46.9										46.9	No	No	No	No	No	No
Phase 8	R1	65.0				57.6		88.0				49.6		80.0						-15.0		49.6		65.0	No	No	No	No	No	No
	R2	65.0				54.2		76.5				46.2		68.5						-3.5		46.2		65.0	No	No	No	No	No	No
	R3	65.0				51.9		56.8				43.9		48.8								43.9		48.8	No	No	No	No	No	No
	R4	65.0				48.2		56.1				40.2		48.1								40.2		48.1	No	No	No	No	No	No
	R5	60.0				52.4		66.0				44.4		58.0								44.4		58.0	No	No	No	No	No	No
	R6	65.0				51.1		58.4				43.1		50.4								43.1		50.4	No	No	No	No	No	No
Phase 9	R1	65.0				62.9		61.9				54.9		53.9								54.9		53.9	No	No	No	No	No	No
	R2	65.0				58.4		56.5				50.4		48.5								50.4		48.5	No	No	No	No	No	No
	R3	65.0				70.5		74.9				62.5		66.9						-1.9		62.5		65.0	No	No	No	No	No	No
	R4	65.0				62.4		60.0				54.4		52.0								54.4		52.0	No	No	No	No	No	No
	R5	60.0				70.5		70.5				62.5		62.5				-2.5		-2.5		60.0		60.0	No	No	No	No	No	No
	R6	65.0				59.1		57.1				51.1		49.1								51.1		49.1	No	No	No	No	No	No
Phase 10	R1	65.0				64.9		68.0				56.9		60.0								56.9		60.0	No	No	No	No	No	No
	R2	65.0				65.3		68.0				57.3		60.0								57.3		60.0	No	No	No	No	No	No
	R3	65.0				59.6		58.4				51.6		50.4								51.6		50.4	No	No	No	No	No	No
	R4	65.0				56.9		55.7				48.9		47.7								48.9		47.7	No	No	No	No	No	No
	R5	60.0				63.4		66.2				55.4		58.2								55.4		58.2	No	No	No	No	No	No
	R6	65.0				61.7		60.9				53.7		52.9								53.7		52.9	No	No	No	No	No	No
Phase 11	R1	65.0						60.8						52.8										52.8	No	No	No	No	No	No
	R2	65.0						53.0						45.0										45.0	No	No	No	No	No	No
	R3	65.0						77.1						69.1						-4.1				65.0	No	No	No	No	No	No
	R4	65.0						74.9						66.9						-1.9				65.0	No	No	No	No	No	No
	R5	60.0						64.0						56.0										56.0	No	No	No	No	No	No
	R6	65.0						52.8						44.8										44.8	No	No	No	No	No	No
Phase12	R1	65.0				60.6		58.6				52.6		50.6								52.6		50.6	No	No	No	No	No	No
	R2	65.0				63.7		64.2				55.7		56.2								55.7		56.2	No	No	No	No	No	No
	R3	65.0				64.5		67.1				56.5		59.1								56.5		59.1	No	No	No	No	No	No
	R4	65.0				57.7		56.5				49.7		48.5								49.7		48.5	No	No	No	No	No	No
	R5	60.0				63.2		63.7				55.2		55.7								55.2		55.7	No	No	No	No	No	No
	R6	65.0				65.6		68.0				57.6		60.0								57.6		60.0	No	No	No	No	No	No
Phase 13	R1	65.0						64.2						56.2										56.2	No	No	No	No	No	No
	R2	65.0						60.2						52.2										52.2	No	No	No	No	No	No
	R3	65.0						63.1						55.1										55.1	No	No	No	No	No	No
	R4	65.0						58.4						50.4										50.4	No	No	No	No	No	No
	R5	60.0						75.9						67.9						-7.9				60.0	No	No	No	No	No	No
	R6	65.0						60.0						52.0										52.0	No	No	No	No	No	No

Overlapping Phases			88.0	76.5	79.5	71.9	78.7	68.6																						
			Combined Noise Level without Los Angeles County Code Compliance (dBA Lmax)[a]						Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[b]						Construction Noise Technique Attenuation						Noise Levels after Construction Noise Technique Attenuation and Compliance with LA Code						Noise Level Threshold at R1-R4, and R6[c]	Noise Level Threshold at R5[c]	Noise Level Threshold Exceeded?					
			R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6			R1	R2	R3	R4	R5	R6
phase0Demolition	phase1Demolition																															
phase0Demolition	phase1Grading																										65.0	60.0	No	No	No	No	No	No
phase0Site Prep	phase1Grading		65.0	65.0	65.0	65.0	65.0		57.0	57.0	57.0	57.0	57.0								57.0	57.0	57.0	57.0	57.0		65.0	60.0	No	No	No	No	No	No
phase4Demolition	phase5Demolition																										65.0	60.0	No	No	No	No	No	No
phase4Grading	phase5Grading																										65.0	60.0	No	No	No	No	No	No
phase4Grading	phase5Building Construction																										65.0	60.0	No	No	No	No	No	No
phase4Building Construction	phase5Building Construction		74.2	60.9	60.4	60.8	74.7	58.4	66.2	52.9	52.4	52.8	66.7	50.4	-1.2				-6.7		65.0	52.9	52.4	52.8	60.0	50.4	65.0	60.0	No	No	No	No	No	No
phase4Building Construction	phase5Architectural Coating		74.4	64.6	64.8	61.9	75.0	63.5	66.4	56.6	56.8	53.9	67.0	55.5	-1.4				-7.0		65.0	56.6	56.8	53.9	60.0	55.5	65.0	60.0	No	No	No	No	No	No
phase4Building Construction	phase5Paving		74.2	60.9	60.4	60.8	74.7	58.4	66.2	52.9	52.4	52.8	66.7	50.4	-1.2				-6.7		65.0	52.9	52.4	52.8	60.0	50.4	65.0	60.0	No	No	No	No	No	No
phase2Demolition	phase3Demolition																										65.0	60.0	No	No	No	No	No	No
phase2Grading	phase3Grading																										65.0	60.0	No	No	No	No	No	No
phase2Building Construction	phase3Building Construction																										65.0	60.0	No	No	No	No	No	No
phase2Architectural Coating	phase3Architectural Coating		64.3	60.9	79.5	64.9	76.6	60.1	56.3	52.9	71.5	56.9	68.6	52.1				-6.5	-8.6		56.3	52.9	65.0	56.9	60.0	52.1	65.0	60.0	No	No	No	No	No	No
phase2Paving	phase3Paving																										65.0	60.0	No	No	No	No	No	No
phase9Demolition	phase8Demolition																										65.0	60.0	No	No	No	No	No	No
phase9Grading	phase8Grading																										65.0	60.0	No	No	No	No	No	No
phase9Building Construction	phase8Grading		62.9	58.4	70.5	62.4	70.5	59.1	54.9	50.4	62.5	54.4	62.5	51.1				-2.5			54.9	50.4	62.5	54.4	60.0	51.1	65.0	60.0	No	No	No	No	No	No
phase9Building Construction	phase8Building Construction		64.0	59.8	70.5	62.5	70.6	59.7	56.0	51.8	62.5	54.5	62.6	51.7				-2.6			56.0	51.8	62.5	54.5	60.0	51.7	65.0	60.0	No	No	No	No	No	No
phase9Building Construction	phase8Architectural Coating		88.0	76.5	70.6	63.3	71.9	61.8	80.0	68.5	62.6	55.3	63.9	53.8	-15.0	-3.5		-3.9			65.0	65.0	62.6	55.3	60.0	53.8	65.0	60.0	No	No	No	No	No	No
phase9Architectural Coating	phase8Architectural Coating		88.0	76.5	75.0	61.5	71.8	60.8	80.0	68.5	67.0	53.5	63.8	52.8	-15.0	-3.5	-2.0	-3.8			65.0	65.0	65.0	53.5	60.0	52.8	65.0	60.0	No	No	No	No	No	No
phase9Paving	phase8Paving																										65.0	60.0	No	No	No	No	No	No
phase6Demolition	phase7Demolition																										65.0	60.0	No	No	No	No	No	No
phase6Grading	phase7Grading																										65.0	60.0	No	No	No	No	No	No
phase6Building Construction	phase7Building Construction																										65.0	60.0	No	No	No	No	No	No
phase6Architectural Coating	phase7Architectural Coating		64.1	57.8	79.5	71.9	78.7	57.9	56.1	49.8	71.5	63.9	70.7	49.9				-6.5	-10.7		56.1	49.8	65.0	63.9	60.0	49.9	65.0	60.0	No	No	No	No	No	No
phase6Paving	phase7Paving																										65.0	60.0	No	No	No	No	No	No
phase10Demolition	phase11Demolition																										65.0	60.0	No	No	No	No	No	No
phase10Grading	phase11Demolition																										65.0	60.0	No	No	No	No	No	No
phase10Grading	phase11Grading																										65.0	60.0	No	No	No	No	No	No
phase10Building Construction	phase11Grading		64.9	65.3	59.6	56.9	63.4	61.7	56.9	57.3	51.6	48.9	55.4	53.7							56.9	57.3	51.6	48.9	55.4	53.7	65.0	60.0	No	No	No	No	No	No
phase10Building Construction	phase11Building Construction		64.9	65.3	59.6	56.9	63.4	61.7	56.9	57.3	51.6	48.9	55.4	53.7							56.9	57.3	51.6	48.9	55.4	53.7	65.0	60.0	No	No	No	No	No	No
phase10Architectural Coating	phase11Building Construction		68.0	68.0	58.4	55.7	66.2	60.9	60.0	60.0	50.4	47.7	58.2	52.9							60.0	60.0	50.4	47.7	58.2	52.9	65.0	60.0	No	No	No	No	No	No
phase10Paving	phase11Building Construction																										65.0	60.0	No	No	No	No	No	No
phase12Demolition	phase13Demolition																										65.0	60.0	No	No	No	No	No	No
phase12Grading	phase13Grading																										65.0	60.0	No	No	No	No	No	No
phase12Building Construction	phase13Building Construction		60.6	63.7	64.5	57.7	63.2	55.6	52.6	55.7	56.5	49.7	55.2	57.6							52.6	55.7	56.5	49.7	55.2	57.6	65.0	60.0	No	No	No	No	No	No
phase12Architectural Coating	phase13Architectural Coating		60.2	65.6	68.8	60.6	76.2	68.8	57.2	57.6	60.6	52.6	68.2	60.6				-8.2			57.2	57.6	60.6	52.6	60.0	60.6	65.0	60.0	No	No	No	No	No	No
phase12Paving	phase13Paving																										65.0	60.0	No	No	No	No	No	No
Maximum Construction Noise Technique Reduction															-15.0	-3.5	-6.5	0.0	-10.7	0.0												

[a] Combined Noise Level without compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers).

[b] Combined Noise Level with compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[c] The noise level threshold is based on Los Angeles County Code Section 12.08.440.B.1.1 for multi-family receptors.

Project: CMWC Phase 0 Demolition/Grading

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th Pl					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Site Prep/Hydroseeding					***65***	***62***				***65***	***62***				***65***	***62***				***65***	***62***				***65***	***62***				***65***	***62***		
Pumps	1	77	50%	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0
Maximum Combined Noise Levels					**65.0**	**61.9**				**65.0**	**61.9**				**65.0**	**61.9**				**65.0**	**61.9**				**65.0**	**61.9**				**65.0**	**61.9**		
Maximum Combined Noise Levels with County Compliance[a]					**57.0**	**53.9**				**57.0**	**53.9**				**57.0**	**53.9**				**57.0**	**53.9**				**57.0**	**53.9**				**57.0**	**53.9**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Athletics Field Phase 1

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					***62.6***	***59***				***61***	***58***				***67***	***64***				***57***	***54***				***63***	***60***				***65***	***62***		
Generator	1	82	50%	515	62	59	62	0	295	60	57	60	0	630	67	64	67	0	1000	56	53	56	0	480	62	59	62	0	380	64	61	64	0
Welder	3	73	40%	685	55	51	54	0	480	54	50	53	0	790	58	54	57	0	1200	50	46	49	0	580	56	53	56	0	700	55	51	54	0
Architectural Coating					***62.9***	***59***				***60***	***56***				***71***	***67***				***57***	***53***				***62***	***58***				***71***	***67***		
Compressor (air)	1	80	40%	360	63	59	62	0	145	60	56	59	0	485	71	67	70	0	740	57	53	56	0	380	62	58	61	0	135	71	67	70	0
Maximum Combined Noise Levels					**62.9**	**59.4**				**60.3**	**57.7**				**70.8**	**66.8**				**56.6**	**53.8**				**62.4**	**60.2**				**71.4**	**67.4**		
Maximum Combined Noise Levels with County Compliance[a]					**54.9**	**51.4**				**52.3**	**49.7**				**62.8**	**58.8**				**48.6**	**45.8**				**54.4**	**52.2**				**63.4**	**59.4**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 2 Affordable Housing B1

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***59***	***56***				***57***	***53***				***79***	***75***				***62***	***58***				***68***	***64***				***57***	***53***		
Compressor (air)	1	80	40%	530	59	56	59	0	730	57	53	56	0	55	79	75	78	0	400	62	58	61	0	200	68	64	67	0	700	57	53	56	0
Maximum Combined Noise Levels					**59.5**	**55.5**				**56.7**	**52.7**				**79.2**	**75.2**				**61.9**	**58.0**				**68.0**	**64.0**				**57.1**	**53.1**		
Maximum Combined Noise Levels with County Compliance[a]					**51.5**	**47.5**				**48.7**	**44.7**				**71.2**	**67.2**				**53.9**	**50.0**				**60.0**	**56.0**				**49.1**	**45.1**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 3 Affordable Housing B2

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***62***	***59***				***59***	***55***				***68***	***64***				***62***	***58***				***76***	***72***				***57***	***53***		
Compressor (air)	1	80	40%	375	62	59	62	0	570	59	55	58	0	205	68	64	67	0	400	62	58	61	0	80	76	72	75	0	700	57	53	56	0
Maximum Combined Noise Levels					**62.5**	**0.0**				**58.9**	**0.0**				**67.7**	**0.0**				**61.9**	**0.0**				**75.9**	**0.0**				**57.1**	**0.0**		
Maximum Combined Noise Levels with County Compliance[a]					**54.5**	**(8.0)**				**50.9**	**(8.0)**				**59.7**	**(8.0)**				**53.9**	**(8.0)**				**67.9**	**(8.0)**				**49.1**	**(8.0)**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 4 Office Building

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					***74***	***71***				***61***	***58***				***60***	***57***				***61***	***58***				***75***	***72***				***58***	***55***		
Generator	1	82	50%	130	74	71	74	0	650	60	57	60	0	680	59	56	59	0	650	60	57	60	0	120	74	71	74	0	860	57	54	57	0
Welder	3	73	40%	240	64	60	63	0	715	55	51	54	0	775	54	50	53	0	750	54	50	53	0	280	63	59	62	0	960	52	48	51	0
Phse 3/4/5 Overlap																																	
Architectural Coating					***80***	***76***				***60***	***56***				***59***	***55***				***60***	***56***				***81***	***77***				***56***	***52***		
Compressor (air)	1	80	40%	50	80	76	79	0	525	60	56	59	0	565	59	55	58	0	525	60	56	59	0	45	81	77	80	0	760	56	52	55	0
Maximum Combined Noise Levels					**80.0**	**76.0**				**59.6**	**57.7**				**58.9**	**57.2**				**59.6**	**57.6**				**80.9**	**76.9**				**56.4**	**55.2**		
Maximum Combined Noise Levels with County Compliance[a]					**72.0**	**68.0**				**51.6**	**49.7**				**50.9**	**49.2**				**51.6**	**49.6**				**72.9**	**68.9**				**48.4**	**47.2**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 5 Student Housing B2

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***62***	***58***				***62***	***58***				***63***	***59***				***55***	***51***				***64***	***60***				***62***	***58***		
Compressor (air)	1	80	40%	385	62	58	61	0	390	62	58	61	0	360	63	59	62	0	850	55	51	54	0	315	64	60	63	0	400	62	58	61	0
Maximum Combined Noise Levels					**62.3**	**58.3**				**62.2**	**58.2**				**62.9**	**58.9**				**55.4**	**51.4**				**64.0**	**60.0**				**61.9**	**58.0**		
Maximum Combined Noise Levels with County Compliance[a]					**54.3**	**50.3**				**54.2**	**50.2**				**54.9**	**50.9**				**47.4**	**43.4**				**56.0**	**52.0**				**53.9**	**50.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 6 Affordable Housing B3

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***59***	***55***				***55***	***51***				***79***	***75***				***69***	***65***				***67***	***63***				***55***	***51***		
Compressor (air)	1	80	40%	545	59	55	58	0	920	55	51	54	0	55	79	75	78	0	180	69	65	68	0	225	67	63	66	0	900	55	51	54	0
Maximum Combined Noise Levels					**59.3**	**55.3**				**54.7**	**50.7**				**79.2**	**75.2**				**68.9**	**64.9**				**66.9**	**63.0**				**54.9**	**50.9**		
Maximum Combined Noise Levels with County Compliance[a]					**51.3**	**47.3**				**46.7**	**42.7**				**71.2**	**67.2**				**60.9**	**56.9**				**58.9**	**55.0**				**46.9**	**42.9**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 7 Affordable Housing B4

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***62***	***58***				***55***	***51***				***68***	***64***				***69***	***65***				***78***	***74***				***55***	***51***		
Compressor (air)	1	80	40%	380	62	58	61	0	900	55	51	54	0	190	68	64	67	0	180	69	65	68	0	60	78	74	77	0	900	55	51	54	0
Maximum Combined Noise Levels					**62.4**	**58.4**				**54.9**	**50.9**				**68.4**	**64.4**				**68.9**	**64.9**				**78.4**	**74.4**				**54.9**	**50.9**		
Maximum Combined Noise Levels with County Compliance[a]					**54.4**	**50.4**				**46.9**	**42.9**				**60.4**	**56.4**				**60.9**	**56.9**				**70.4**	**66.4**				**46.9**	**42.9**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 8 Parking Structure

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					***58***	***54***				***54***	***50***				***52***	***48***				***48***	***44***				***52***	***48***				***51***	***47***		
Welder	3	73	40%	510	58	54	57	0	750	54	50	53	0	980	52	48	51	0	1500	48	44	47	0	925	52	48	51	0	1075	51	47	50	0
Architectural Coating					***88***	***84***				***76***	***72***				***57***	***53***				***56***	***52***				***66***	***62***				***58***	***54***		
Compressor (air)	1	80	40%	20	88	84	87	0	75	76	72	75	0	725	57	53	56	0	780	56	52	55	0	250	66	62	65	0	600	58	54	57	0
Maximum Combined Noise Levels					**88.0**	**84.0**				**76.5**	**72.5**				**56.8**	**52.8**				**56.1**	**52.2**				**66.0**	**62.0**				**58.4**	**54.4**		
Maximum Combined Noise Levels with County Compliance[a]					**80.0**	**76.0**				**68.5**	**64.5**				**48.8**	**44.8**				**48.1**	**44.2**				**58.0**	**54.0**				**50.4**	**46.4**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 9 Student Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					*63*	*60*				*58*	*55*				*70*	*67*				*62*	*59*				*71*	*67*				*59*	*56*		
Generator	1	82	50%	500	62	59	62	0	850	57	54	57	0	200	70	67	70	0	550	61	58	61	0	200	70	67	70	0	800	58	55	58	0
Welder	3	73	40%	650	55	52	55	0	1050	51	47	50	0	350	61	57	60	0	600	56	52	55	0	325	62	58	61	0	900	53	49	52	0
Architectural Coating					*62*	*58*				*56*	*52*				*75*	*71*				*60*	*56*				*70*	*66*				*57*	*53*		
Compressor (air)	1	80	40%	400	62	58	61	0	750	56	52	55	0	90	75	71	74	0	500	60	56	59	0	150	70	66	69	0	700	57	53	56	0
Maximum Combined Noise Levels					**61.9**	**59.7**				**56.5**	**55.2**				**74.9**	**70.9**				**60.0**	**59.1**				**70.5**	**67.4**				**57.1**	**55.8**		
Maximum Combined Noise Levels with County Compliance[a]					**53.9**	**51.7**				**48.5**	**47.2**				**66.9**	**62.9**				**52.0**	**51.1**				**62.5**	**59.4**				**49.1**	**47.8**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 10 Athletics Facility

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					***65***	***62***				***65***	***62***				***60***	***56***				***57***	***54***				***63***	***60***				***62***	***59***		
Generator	1	82	50%	390	64	61	64	0	370	65	62	65	0	750	58	55	58	0	1020	56	53	56	0	475	62	59	62	0	575	61	58	61	0
Welder	3	73	40%	550	57	53	56	0	540	57	53	56	0	850	53	49	52	0	1163	50	46	49	0	600	56	52	55	0	725	55	51	54	0
Architectural Coating					***68***	***64***				***68***	***64***				***58***	***54***				***56***	***52***				***66***	***62***				***61***	***57***		
Compressor (air)	1	80	40%	200	68	64	67	0	200	68	64	67	0	600	58	54	57	0	820	56	52	55	0	245	66	62	65	0	450	61	57	60	0
Maximum Combined Noise Levels					**68.0**	**64.0**				**68.0**	**64.0**				**58.4**	**56.4**				**55.7**	**53.7**				**66.2**	**62.2**				**60.9**	**58.5**		
Maximum Combined Noise Levels with County Compliance[a]					**60.0**	**56.0**				**60.0**	**56.0**				**50.4**	**48.4**				**47.7**	**45.7**				**58.2**	**54.2**				**52.9**	**50.5**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] **The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.**

[b] **The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.**

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 11 Senior Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction																																
Pumps	1	77	50%	680	54	51	54	0	1225	49	46	49	0	300	61	58	61	0	250	63	60	63	0	480	57	54	57	0	1225	49	46	49	0
Architectural Coating					***61***	***57***				***53***	***49***				***77***	***73***				***75***	***71***				***64***	***60***				***53***	***49***		
Compressor (air)	1	80	40%	455	61	57	60	0	1125	53	49	52	0	70	77	73	76	0	90	75	71	74	0	315	64	60	63	0	1150	53	49	52	0
Maximum Combined Noise Levels					**60.8**	**56.8**				**53.0**	**49.0**				**77.1**	**73.1**				**74.9**	**70.9**				**64.0**	**60.0**				**52.8**	**48.8**		
Maximum Combined Noise Levels with County Compliance[a]					**52.8**	**48.8**				**45.0**	**41.0**				**69.1**	**65.1**				**66.9**	**62.9**				**56.0**	**52.0**				**44.8**	**40.8**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] **The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.**

[b] **The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.**

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 12 Student Housing 3

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Building Construction					***61***	***57***				***64***	***61***				***64***	***61***				***58***	***55***				***63***	***60***				***66***	***63***		
Generator	1	82	50%	670	59	56	59	0	450	63	60	63	0	410	64	61	64	0	920	57	54	57	0	480	62	59	62	0	350	65	62	65	0
Welder	3	73	40%	770	54	50	53	0	635	56	52	55	0	575	57	53	56	0	1100	51	47	50	0	630	56	52	55	0	600	56	52	55	0
Architectural Coating					***59***	***55***				***64***	***60***				***67***	***63***				***56***	***52***				***64***	***60***				***68***	***64***		
Compressor (air)	1	80	40%	590	59	55	58	0	310	64	60	63	0	220	67	63	66	0	750	56	52	55	0	325	64	60	63	0	200	68	64	67	0
Maximum Combined Noise Levels					**58.6**	**57.3**				**64.2**	**60.5**				**67.1**	**63.2**				**56.5**	**54.5**				**63.7**	**60.0**				**68.0**	**64.0**		
Maximum Combined Noise Levels with County Compliance[a]					**50.6**	**49.3**				**56.2**	**52.5**				**59.1**	**55.2**				**48.5**	**46.5**				**55.7**	**52.0**				**60.0**	**56.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] **The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.**

[b] **The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.**

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 13 Workforce Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th Pl					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Architectural Coating					***64***	***60***				***60***	***56***				***63***	***59***				***58***	***54***				***76***	***72***				***60***	***56***		
Compressor (air)	1	80	40%	310	64	60	63	0	490	60	56	59	0	350	63	59	62	0	600	58	54	57	0	80	76	72	75	0	500	60	56	59	0
Maximum Combined Noise Levels					**64.2**	**60.2**				**60.2**	**56.2**				**63.1**	**59.1**				**58.4**	**54.4**				**75.9**	**71.9**				**60.0**	**56.0**		
Maximum Combined Noise Levels with County Compliance[a]					**56.2**	**52.2**				**52.2**	**48.2**				**55.1**	**51.1**				**50.4**	**46.4**				**67.9**	**63.9**				**52.0**	**48.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Mobile Construction Noise Calculations

CMWC | Exceedance | 52.8 | 91.1

On-Site Construction Noise Summary Mobile

Highlighted Cells Represent Areas changed to represent new data/changed values from previous revision.

Construction Phase		Noise Level Threshold[a]	Construction Phase - Combined Noise Level without Los Angeles County Code Compliance (dBA Lmax)[b]						Construction Phase - Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[c]						Construction Noise Technique Attenuation						Noise Levels after Construction Noise Technique Attenuation and Compliance with LA Code						Noise Level Threshold Exceeded?					
			Demolition	Site Prep/Hydrosee ding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydrosee ding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydrosee ding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydrosee ding	Grading	Building Construction	Paving	Architectural Coating	Demolition	Site Prep/Hydrosee ding	Grading	Building Construction	Paving	Architectural Coating
Phase 0	R1	80.0	77.2	86.1					69.2	78.1											69.2	78.1					No	No	No	No	No	No
	R2	80.0	81.1	71.8					73.1	63.8											73.1	63.8					No	No	No	No	No	No
	R3	80.0	90.0	80.1					82.0	72.1					-2.0						80.0	72.1					No	No	No	No	No	No
	R4	75.0	73.7	77.9					65.7	69.9											65.7	69.9					No	No	No	No	No	No
	R5	75.0	86.7	84.5					78.7	76.5					-3.7	-1.5					75.0	75.0					No	No	No	No	No	No
	R6	80.0	76.1	68.2					68.1	60.2											68.1	60.2					No	No	No	No	No	No
Phase 1	R1	80.0	68.0		70.1	70.6	72.4	62.9	60.0		62.1	62.6	64.4	54.9							60.0		62.1	62.6	64.4	54.9	No	No	No	No	No	No
	R2	80.0	66.3		67.9	68.3	70.2	60.3	58.3		59.9	60.3	62.2	52.3							58.3		59.9	60.3	62.2	52.3	No	No	No	No	No	No
	R3	80.0	73.3		76.9	77.4	79.0	70.8	65.3		68.9	69.4	71.0	62.8							65.3		68.9	69.4	71.0	62.8	No	No	No	No	No	No
	R4	75.0	62.6		64.1	64.4	66.5	56.6	54.6		56.1	56.4	58.5	48.6							54.6		56.1	56.4	58.5	48.6	No	No	No	No	No	No
	R5	75.0	68.8		70.2	70.6	72.6	62.4	60.8		62.2	62.6	64.6	54.4							60.8		62.2	62.6	64.6	54.4	No	No	No	No	No	No
	R6	80.0	72.7		77.0	77.4	78.0	71.4	64.7		69.0	69.4	70.0	63.4							64.7		69.0	69.4	70.0	63.4	No	No	No	No	No	No
Phase 2	R1	80.0	71.7		67.5	69.6	69.1	59.5	63.7		59.5	61.6	61.1	51.5							63.7		59.5	61.6	61.1	51.5	No	No	No	No	No	No
	R2	80.0	68.9		64.7	66.7	66.3	56.7	60.9		56.7	58.7	58.3	48.7							60.9		56.7	58.7	58.3	48.7	No	No	No	No	No	No
	R3	80.0	89.5		84.9	85.5	85.3	79.2	81.5		76.9	77.5	77.3	71.2	-1.5						80.0		76.9	77.5	77.3	71.2	No	No	No	No	No	No
	R4	75.0	73.7		69.4	71.2	70.5	61.9	65.7		61.4	63.2	62.5	53.9							65.7		61.4	63.2	62.5	53.9	No	No	No	No	No	No
	R5	75.0	79.5		75.2	76.8	76.5	68.0	71.5		67.2	68.8	68.5	60.0							71.5		67.2	68.8	68.5	60.0	No	No	No	No	No	No
	R6	80.0	69.2		65.0	67.0	66.4	57.1	61.2		57.0	59.0	58.4	49.1							61.2		57.0	59.0	58.4	49.1	No	No	No	No	No	No
Phase 3	R1	80.0	74.5		70.3	70.1	71.8	62.5	66.5		62.3	62.1	63.8	54.5							66.5		62.3	62.1	63.8	54.5	No	No	No	No	No	No
	R2	80.0	70.9		66.7	66.5	68.1	58.9	62.9		58.7	58.5	60.1	50.9							62.9		58.7	58.5	60.1	50.9	No	No	No	No	No	No
	R3	80.0	79.2		75.0	74.8	75.9	67.7	71.2		67.0	66.8	67.9	59.7							71.2		67.0	66.8	67.9	59.7	No	No	No	No	No	No
	R4	75.0	73.7		69.4	69.2	70.5	61.9	65.7		61.4	61.2	62.5	53.9							65.7		61.4	61.2	62.5	53.9	No	No	No	No	No	No
	R5	75.0	86.7		82.3	82.1	83.0	75.9	78.7		74.3	74.1	75.0	67.9	-3.7						75.0		74.3	74.1	75.0	67.9	No	No	No	Yes	No	No
	R6	80.0	69.2		65.0	64.8	66.4	57.1	61.2		57.0	56.8	58.4	49.1							61.2		57.0	56.8	58.4	49.1	No	No	No	No	No	No
Phase 4	R1	80.0	81.1		85.7	85.9	86.1	80.0	73.1		77.7	77.9	78.1	72.0							73.1		77.7	77.9	78.1	72.0	No	No	No	No	No	No
	R2	80.0	64.8		67.6	67.3	68.7	59.6	56.8		59.6	59.3	60.7	51.6							56.8		59.6	59.3	60.7	51.6	No	No	No	No	No	No
	R3	80.0	64.2		67.0	66.7	68.1	58.9	56.2		59.0	58.7	60.1	50.9							56.2		59.0	58.7	60.1	50.9	No	No	No	No	No	No
	R4	75.0	64.8		67.7	67.2	68.6	59.6	56.8		59.7	59.2	60.6	51.6							56.8		59.7	59.2	60.6	51.6	No	No	No	No	No	No
	R5	75.0	81.8		86.5	86.7	84.9	80.0	73.8		78.5	78.7	76.9	72.0					-3.5	-3.7	-1.9		73.8		78.5	78.7	76.9	72.0	No	No	No	No	No	No
	R6	80.0	62.1		64.7	64.4	65.9	56.4	54.1		56.7	56.4	57.9	48.4							54.1		56.7	56.4	57.9	48.4	No	No	No	No	No	No
Phase 5	R1	80.0	66.8		69.6	69.8	71.2	62.3	58.6		61.6	61.8	63.2	54.3							58.6		61.6	61.8	63.2	54.3	No	No	No	No	No	No
	R2	80.0	68.0		70.2	70.2	71.9	62.2	60.0		62.2	62.2	63.9	54.2							60.0		62.2	62.2	63.9	54.2	No	No	No	No	No	No
	R3	80.0	67.8		70.4	70.5	72.0	62.9	59.8		62.4	62.5	64.0	54.9							59.8		62.4	62.5	64.0	54.9	No	No	No	No	No	No
	R4	75.0	64.2		63.9	63.7	65.7	56.4	54.2		55.9	55.7	57.7	47.4							54.2		55.9	55.7	57.7	47.4	No	No	No	No	No	No
	R5	75.0	69.4		71.9	71.6	73.5	64.0	61.4		63.9	63.6	65.5	56.0							61.4		63.9	63.6	65.5	56.0	No	No	No	No	No	No
	R6	80.0	68.1		70.2	70.0	71.8	61.9	60.1		62.2	62.0	63.8	53.9							60.1		62.2	62.0	63.8	53.9	No	No	No	No	No	No
Phase 6	R1	80.0	64.8		65.0	68.4	68.8	59.3	56.8		57.0	60.4	60.8	51.3							56.8		57.0	60.4	60.8	51.3	No	No	No	No	No	No
	R2	80.0	60.6		60.5	64.1	80.1	54.7	52.6		52.5	56.1	72.1	46.7							52.6		52.5	56.1	72.1	46.7	No	No	No	No	No	No
	R3	80.0	80.2		84.2	84.8	85.3	79.2	72.2		76.2	76.8	77.3	71.2							72.2		76.2	76.8	77.3	71.2	No	No	No	No	No	No
	R4	75.0	72.1		74.2	76.1	76.6	68.9	64.1		66.2	68.1	68.6	60.9							64.1		66.2	68.1	68.6	60.9	No	No	No	No	No	No
	R5	75.0	70.9		72.3	74.6	75.4	66.9	62.9		64.3	66.6	67.4	58.9							62.9		64.3	66.6	67.4	58.9	No	No	No	No	No	No
	R6	80.0	60.8		60.7	64.3	64.6	54.9	52.8		52.7	56.3	56.6	46.9							52.8		52.7	56.3	56.6	46.9	No	No	No	No	No	No
Phase 7	R1	80.0	67.7		68.0	71.4	71.6	62.4	59.7		60.0	63.4	63.6	54.4							59.7		60.0	63.4	63.6	54.4	No	No	No	No	No	No
	R2	80.0	60.8		60.7	64.4	64.6	54.9	52.8		52.7	56.4	56.6	46.9							52.8		52.7	56.4	56.6	46.9	No	No	No	No	No	No
	R3	80.0	72.0		73.8	76.2	76.3	68.4	64.0		65.8	68.2	68.3	60.4							64.0		65.8	68.2	68.3	60.4	No	No	No	No	No	No
	R4	75.0	72.1		74.2	76.4	76.3	68.9	64.1		66.2	68.4	68.3	60.9							64.1		66.2	68.4	68.3	60.9	No	No	No	No	No	No
	R5	75.0	79.9		83.5	84.5	84.7	78.4	71.9		75.5	76.5	76.7	70.4					-0.5	-1.5	-1.7		71.9		75.5	76.5	76.7	70.4	No	No	No	No	No	No
	R6	80.0	60.8		60.7	64.4	64.6	54.9	52.8		52.7	56.4	56.6	46.9							52.8		52.7	56.4	56.6	46.9	No	No	No	No	No	No
Phase 8	R1	80.0	86.2		73.4	91.1	91.1	88.0	78.2		65.4	83.1	83.1	80.0						-3.1	-3.1		73.2		65.4	80.0	80.0	80.0	No	No	No	No	No	No
	R2	80.0	77.0		81.6	81.8	81.7	76.5	69.0		73.6	73.8	73.7	68.5							69.0		73.6	73.8	73.7	68.5	No	No	No	No	No	No
	R3	80.0	65.2		65.1	66.0	66.1	56.8	57.2		57.1	58.0	58.1	48.8							57.2		57.1	58.0	58.1	48.8	No	No	No	No	No	No
	R4	75.0	62.1		63.1	64.6	64.4	56.1	54.1		55.1	56.6	56.4	48.1							54.1		55.1	56.6	56.4	48.1	No	No	No	No	No	No
	R5	75.0	68.4		71.4	72.3	72.7	66.0	60.4		63.4	64.3	64.7	58.0							60.4		63.4	64.3	64.7	58.0	No	No	No	No	No	No
	R6	80.0	64.9		65.6	66.3	66.4	58.4	56.9		57.6	58.3	58.4	50.4							56.9		57.6	58.3	58.4	50.4	No	No	No	No	No	No
Phase 9	R1	80.0	69.1		69.7	69.5	70.7	61.9	61.1		61.7	61.5	62.7	53.9							61.1		61.7	61.5	62.7	53.9	No	No	No	No	No	No
	R2	80.0	64.7		64.7	64.5	65.8	56.5	56.7		56.7	56.5	57.8	48.5							56.7		56.7	56.5	57.8	48.5	No	No	No	No	No	No
	R3	80.0	77.9		81.4	80.9	81.3	74.9	69.9		73.4	72.9	73.3	66.9							69.9		73.4	72.9	73.3	66.9	No	No	No	No	No	No
	R4	75.0	69.3		68.6	68.2	69.8	60.0	61.3		60.6	60.2	61.8	52.0							61.3		60.6	60.2	61.8	52.0	No	No	No	No	No	No
	R5	75.0	75.7		77.2	77.7	78.4	70.5	67.7		69.2	69.7	70.4	62.5							67.7		69.2	69.7	70.4	62.5	No	No	No	No	No	No
	R6	80.0	65.8		65.4	65.1	65.6	57.1	57.8		57.4	57.1	58.6	49.1							57.8		57.4	57.1	58.6	49.1	No	No	No	No	No	No
Phase 10	R1	80.0	72.0		74.3	74.3	75.5	68.0	64.0		66.3	66.3	67.5	60.0							64.0		66.3	66.3	67.5	60.0	No	No	No	No	No	No
	R2	80.0	72.1		74.4	74.3	75.6	68.0	64.1		66.4	66.3	67.6	60.0							64.1		66.4	66.3	67.6	60.0	No	No	No	No	No	No
	R3	80.0	66.5		66.3	66.1	68.4	58.4	58.5		58.3	58.1	60.4	50.4							58.5		58.3	58.1	60.4	50.4	No	No	No	No	No	No
	R4	75.0	63.7		63.6	63.4	65.6	55.7	55.7		55.6	55.4	57.6	47.7							55.7		55.6	55.4	57.6	47.7	No	No	No	No	No	No
	R5	75.0	70.7		72.6	72.6	73.9	66.2	62.7		64.6	64.6	65.9	58.2							62.7		64.6	64.6	65.9	58.2	No	No	No	No	No	No
	R6	80.0	68.1		68.9	68.4	70.4	60.9	60.1		60.9	60.4	62.4	52.9							60.1		60.9	60.4	62.4	52.9	No	No	No	No	No	No
Phase 11	R1	80.0	65.7		66.4	68.6	69.9	60.8	57.7		58.4	60.6	61.9	52.8							57.7		58.4	60.6	61.9	52.8	No	No	No	No	No	No
	R2	80.0	59.6		59.0	61.9	63.1	53.0	51.6		51.0	53.9	55.1	45.0							51.6		51.0	53.9	55.1	45.0	No	No	No	No	No	No
	R3	80.0	78.3		82.2	82.7	83.4	77.1	70.3		74.2	74.7	75.4	69.1							70.3		74.2	74.7	75.4	69.1	No	No	No	No	No	No
	R4	75.0	77.4		80.1	81.1	82.2	74.9	69.4		72.1	73.1	74.2	66.9							69.4		72.1	73.1	74.2	66.9	No	No	No	No	No	No
	R5	75.0	68.9		69.6	71.7	73.1	64.0	60.9		61.6	63.7	65.1	56.0							60.9		61.6	63.7	65.1	56.0	No	No	No	No	No	No
	R6	80.0	59.5		58.8	61.8	63.0	52.8	51.5		50.8	53.8	55.0	44.8							51.5		50.8	53.8	55.0	44.8	No	No	No	No	No	No
Phase12	R1	80.0	64.2		66.9	66.6	68.0	58.6	56.2		58.9	58.6	60.0	50.6							56.2		58.9	58.6	60.0	50.6	No	No	No	No	No	No
	R2	80.0	67.6		71.3	71.1	71.9	64.2	59.6		63.3	63.1	63.9	56.2							59.6		63.3	63.1	63.9	56.2	No	No	No	No	No	No
	R3	80.0	69.6		73.5	73.6	74.1	67.1	61.6		65.5	65.6	66.1	59.1							61.6		65.5	65.6	66.1	59.1	No	No	No	No	No	No
	R4	75.0	61.4		64.4	64.1	65.4	56.5	53.4		56.4	56.1	57.4	48.5							53.4		56.4	56.1	57.4	48.5	No	No	No	No	No	No
	R5	75.0	67.4		70.9	70.8	71.7	63.7	59.4		62.9	62.8	63.7	55.7							59.4		62.9	62.8	63.7	55.7	No	No	No	No	No	No
	R6	80.0	70.2		74.4	74.5	74.9	68.0	62.2		66.4	66.5	66.9	60.0							62.2		66.4	66.5	66.9	60.0	No	No	No	No	No	No
Phase 13	R1	80.0	69.8		72.0	64.9	73.7	64.2	61.8		64.0	56.9	65.7	56.2							61.8		64.0	56.9	65.7	56.2	No	No	No	No	No	No
	R2	80.0	65.5		67.9	60.4	69.5	60.2	57.5		59.9	52.4	61.5	52.2							57.5		59.9	52.4	61.5	52.2	No	No	No	No	No	No
	R3	80.0	68.3		70.9	63.2	72.4	63.1	60.3		62.9	55.2	64.4	55.1							60.3		62.9	55.2	64.4	55.1	No	No	No	No	No	No
	R4	75.0	64.1		66.4	59.2	67.9	58.4	56.1		58.4	51.2	59.9	50.4							56.1		58.4	51.2	59.9	50.4	No	No	No	No	No	No
	R5	75.0	77.5		81.7	68.2	82.5	75.9	69.5		73.7	60.2	74.5	67.9							69.5		73.7	60.2	74.5	67.9	No	No	No	No	No	No
	R6	80.0	65.4		67.9	60.4	69.4	60.0	57.4		59.9	52.4	61.4	52.0							57.4		59.9	52.4	61.4	52.0	No	No	No	No	No	No

Overlapping Phases		91.1	81.8	90.2	81.2	87.5	82.8	Combined Noise Level without Los Angeles County Code Compliance (dBA Lmax)[b]						Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[c]						Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[c]						Combined Noise Level with Los Angeles County Code Compliance (dBA Lmax)[c]						Noise Level Threshold at R1-R3, and R6[a]	Noise Level Threshold at R4 and R5[a]	Noise Level Threshold Exceeded?					
								R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5	R6			R1	R2	R3	R4	R5	R6
phase0Demolition	phase1Demolition							77.7	81.2	90.1	74.1	86.7	77.8	69.7	73.2	82.1	66.1	78.7	69.8					-2.1	-3.7	69.7	73.2	80.0	66.1	75.0	69.8	80.0	75.0	No	No	No	No	No	No
phase0Demolition	phase1Grading							78.0	81.3	90.2	74.2	86.8	79.6	70.0	73.3	82.2	66.2	78.8	71.6					-2.2	-3.8	70.0	73.3	80.0	66.2	75.0	71.6	80.0	75.0	No	No	No	No	No	No
phase0Site Prep	phase1Grading							86.2	71.3	81.8	78.1	84.6	77.5	78.2	65.3	73.6	70.1	76.6	69.5						-1.6	78.2	65.3	73.6	70.1	75.0	69.5	80.0	75.0	No	No	No	No	No	No
phase4Demolition	phase5Demolition							81.2	69.7	69.4	66.7	82.0	69.1	73.2	61.7	61.4	58.7	74.0	61.1							73.2	61.7	61.4	58.7	74.0	61.1	80.0	75.0	No	No	No	No	No	No
phase4Grading	phase5Grading							85.8	72.1	72.1	69.2	86.7	71.3	77.8	64.1	64.1	61.2	78.7	63.3						-3.7	77.8	64.1	64.1	61.2	78.7	63.3	80.0	75.0	No	No	No	No	No	No
phase4Grading	phase5Building Construction							85.8	72.1	72.1	69.2	86.7	71.1	77.8	64.1	64.1	61.2	78.7	63.1						-3.7	77.8	64.1	64.1	61.2	78.7	63.1	80.0	75.0	No	No	No	No	No	No
phase4Building Construction	phase5Building Construction							86.0	72.0	72.0	68.8	86.8	71.0	78.0	64.0	64.0	60.8	78.8	63.0						-3.8	78.0	64.0	64.0	60.8	78.8	63.0	80.0	75.0	No	No	No	No	No	No
phase4Building Construction	phase5Architectural Coating							85.9	69.4	69.2	67.5	86.7	68.4	77.9	60.4	60.2	59.5	78.7	58.4						-3.7	77.9	60.4	60.2	59.5	78.7	58.4	80.0	75.0	No	No	No	No	No	No
phase4Building Construction	phase5Paving							86.0	73.2	73.2	69.5	86.9	72.6	78.0	65.2	65.2	61.5	78.9	64.6						-3.9	78.0	65.2	65.2	61.5	78.9	64.6	80.0	75.0	No	No	No	No	No	No
phase2Demolition	phase3Demolition							76.3	73.0	89.9	79.7	87.5	72.2	68.3	65.0	81.9	68.7	79.5	64.2					-1.6	-4.5	68.3	65.0	80.0	68.7	79.5	64.2	80.0	75.0	No	No	No	No	No	No
phase2Grading	phase3Grading							72.1	68.8	85.3	72.5	83.0	68.0	64.1	60.8	77.3	64.5	75.0	60.0						0.0	64.1	60.8	77.3	64.5	75.0	60.0	80.0	75.0	No	No	No	No	No	No
phase2Building Construction	phase3Building Construction							72.9	69.6	85.9	73.3	83.2	69.0	64.9	61.6	77.9	65.3	75.2	61.0						-0.2	64.9	61.6	77.9	65.3	75.0	61.0	80.0	75.0	No	No	No	No	No	No
phase2Architectural Coating	phase3Architectural Coating							64.3	60.9	79.5	64.9	76.6	60.1	56.3	52.9	71.5	56.9	68.6	52.1							56.3	52.9	71.5	56.9	68.6	52.1	80.0	75.0	No	No	No	No	No	No
phase2Paving	phase3Paving							73.6	70.3	85.8	73.5	83.9	69.4	65.6	62.3	77.8	65.5	75.9	61.4						-0.9	65.6	62.3	77.8	65.5	75.9	61.4	80.0	75.0	No	No	No	No	No	No
phase9Demolition	phase8Demolition							86.2	77.2	78.1	70.0	76.5	68.4	78.2	69.2	70.1	62.0	68.5	60.4							78.2	69.2	70.1	62.0	68.5	60.4	80.0	75.0	No	No	No	No	No	No
phase9Grading	phase8Grading							74.9	81.7	81.0	69.6	78.2	68.5	66.9	73.7	73.5	61.6	70.2	60.5							66.9	73.7	73.5	61.6	70.2	60.5	80.0	75.0	No	No	No	No	No	No
phase9Building Construction	phase8Building Construction							74.9	81.7	81.0	69.3	78.6	68.3	66.9	73.7	73.0	61.3	70.6	60.3							66.9	73.7	73.0	61.3	70.6	60.3	80.0	75.0	No	No	No	No	No	No
phase9Architectural Coating	phase8Architectural Coating							91.1	81.8	81.1	69.7	78.8	68.7	83.1	73.8	73.1	61.7	70.8	60.7	-3.1						80.0	73.8	73.1	61.7	70.8	60.7	80.0	75.0	No	No	No	No	No	No
phase9Building Construction	phase8Architectural Coating							88.0	76.7	80.9	68.4	78.0	65.9	80.0	68.7	72.9	60.4	70.0	57.9	0.0						80.0	68.7	72.9	60.4	70.0	57.9	80.0	75.0	No	No	No	No	No	No
phase9Architectural Coating	phase8Paving							88.0	76.5	75.0	61.5	71.8	60.8	80.0	68.5	67.0	53.5	63.8	52.8							80.0	68.5	67.0	53.5	63.8	52.8	80.0	75.0	No	No	No	No	No	No
phase9Paving	phase8Paving							91.1	81.8	81.4	70.9	79.5	69.5	83.1	73.8	73.4	62.9	71.5	61.5	-3.1						80.0	73.8	73.4	62.9	71.5	61.5	80.0	75.0	No	No	No	No	No	No
phase6Demolition	phase7Demolition							69.5	63.7	80.8	75.2	80.4	63.8	61.5	55.7	72.8	67.2	72.4	55.8							61.5	55.7	72.8	67.2	72.4	55.8	80.0	75.0	No	No	No	No	No	No
phase6Grading	phase7Grading							69.8	63.6	84.6	77.2	83.8	63.7	61.8	55.6	76.6	69.2	75.8	55.7						-0.8	61.8	55.6	76.6	69.2	75.8	55.7	80.0	75.0	No	No	No	No	No	No
phase6Building Construction	phase7Architectural Coating							73.2	69.7	85.4	74.3	84.9	69.4	65.2	61.7	77.8	66.3	77.4	61.3						-1.9	65.2	61.7	77.8	66.3	77.4	61.3	80.0	75.0	No	No	No	No	No	No
phase6Architectural Coating	phase7Architectural Coating							64.1	57.8	79.5	71.9	78.7	57.9	56.1	49.8	71.5	63.9	70.7	49.9							56.1	49.8	71.5	63.9	70.7	49.9	80.0	75.0	No	No	No	No	No	No
phase6Paving	phase7Paving							73.4	80.2	85.8	79.5	85.1	67.6	65.4	72.2	77.8	71.5	77.5	59.6						-2.1	65.4	72.2	77.8	71.5	77.5	59.6	80.0	75.0	No	No	No	No	No	No
phase10Demolition	phase11Demolition							72.9	72.3	78.6	77.6	72.9	68.7	64.9	64.3	70.6	69.6	64.9	60.7							64.9	64.3	70.6	69.6	64.9	60.7	80.0	75.0	No	No	No	No	No	No
phase10Grading	phase11Demolition							74.8	74.5	78.6	77.6	74.1	69.4	66.8	66.5	70.6	69.6	66.1	61.4							66.8	66.5	70.6	69.6	66.1	61.4	80.0	75.0	No	No	No	No	No	No

Project: CMWC Phase 0 Demolition/Grading

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th Pl					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***77***	***71***				***81***	***74***				***90***	***83***				***74***	***68***				***87***	***79.8***				***76***	***70***		
Concrete Saw	1	90	20%	260	76	69	72	0	145	81	74	77	0	50	90	83	86	0	370	73	66	69	0	75	86	79	82	0	270	75	68	71	0
Excavator	2	85	40%	400	70	66	69	0	500	68	64	67	0	500	68	64	67	0	700	65	61	64	0	350	71	67	70	0	600	66	62	65	0
Excavator	1	85	40%	500	65	61	64	0	750	61	57	60	0	750	61	57	60	0	900	60	56	59	0	500	65	61	64	0	900	60	56	59	0
Dozer	2	85	40%	840	64	60	63	0	1000	62	58	61	0	940	63	59	62	0	1170	61	57	60	0	750	64	61	64	0	1100	61	57	60	0
Site Prep/Hydroseeding					***86***	***82***				***72***	***68***				***80***	***76***				***78***	***74***				***84***	***81***				***68***	***65***		
Tractor/Loader/Backhoe	1	80	40%	25	86	82	85	0	145	71	67	70	0	50	80	76	79	0	65	78	74	77	0	30	84	80	83	0	270	65	61	64	0
Pumps	1	77	50%	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0	200	65	62	65	0
Maximum Combined Noise Levels					**86.1**	**82.1**				**81.1**	**74.4**				**90.0**	**83.1**				**77.9**	**74.0**				**86.7**	**80.5**				**76.1**	**69.8**		
Maximum Combined Noise Levels with County Compliance[a]					**78.1**	**74.1**				**72.8**	**65.8**				**82.0**	**75.0**				**69.9**	**66.0**				**78.5**	**72.5**				**67.4**	**60.4**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**Yes**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Athletics Field Phase 1

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***68***	***64***				***66***	***62***				***73***	***69***				***63***	***59***				***69***	***65***				***73***	***69***		
Tractor/Loader/Backhoe	1	80	40%	360	63	59	62	0	145	60	56	59	0	485	71	67	70	0	740	57	53	56	0	380	62	58	61	0	135	71	67	70	0
Tractor/Loader/Backhoe	1	80	40%	515	60	56	59	0	295	58	54	57	0	630	65	61	64	0	1000	54	50	53	0	480	60	56	59	0	380	62	58	61	0
Dozer	2	85	40%	685	65	61	64	0	480	64	60	63	0	790	68	64	67	0	1200	60	56	59	0	580	67	63	66	0	700	65	61	64	0
Grading					***70***	***66***				***68***	***64***				***77***	***73***				***64***	***60***				***70***	***66***				***77***	***73***		
Grader	1	85	40%	360	68	64	67	0	145	65	61	64	0	485	76	72	75	0	740	62	58	61	0	380	67	63	66	0	135	76	72	75	0
Dozer	1	85	40%	515	65	61	64	0	295	63	59	62	0	630	70	66	69	0	1000	59	55	58	0	480	65	61	64	0	380	67	63	66	0
Tractor/Loader/Backhoe	2	80	40%	685	60	56	59	0	480	59	55	58	0	790	63	59	62	0	1200	55	51	54	0	580	62	58	61	0	700	60	56	59	0
Building Construction					***71***	***65***				***68***	***63***				***77***	***71***				***64***	***59***				***71***	***65***				***77***	***71***		
Crane	1	85	16%	360	68	60	63	0	145	65	57	60	0	485	76	68	71	0	740	62	54	57	0	380	67	59	62	0	135	76	68	71	0
Front End Loader	2	80	40%	425	64	60	63	0	225	62	58	61	0	550	70	66	69	0	900	58	54	57	0	420	65	61	64	0	250	69	65	68	0
Generator	1	82	50%	515	62	59	62	0	295	60	57	60	0	630	67	64	67	0	1000	56	53	56	0	480	62	59	62	0	380	64	61	64	0
Tractor/Loader/Backhoe	1	80	40%	600	58	54	57	0	380	57	53	56	0	700	62	58	61	0	1100	53	49	52	0	520	60	56	59	0	500	60	56	59	0
Welder	3	73	40%	685	55	51	54	0	480	54	50	53	0	790	58	54	57	0	1200	50	46	49	0	580	56	53	56	0	700	55	51	54	0
Paving					***72***	***79***				***70***	***65***				***79***	***73***				***66***	***61***				***73***	***67***				***78***	***71***		
Roller	1	85	20%	360	68	61	64	0	145	65	58	61	0	485	76	69	72	0	740	62	55	58	0	380	67	60	63	0	135	76	69	72	0
Roller	1	85	20%	400	67	60	63	0	180	65	58	61	0	525	74	67	70	0	800	61	54	57	0	400	67	60	63	0	250	71	64	67	0
Tractor/Loader/Backhoe	1	80	40%	425	61	57	60	0	225	59	55	58	0	550	67	63	66	0	900	55	51	54	0	420	62	58	61	0	380	62	58	61	0
Drum Mixer	1	80	50%	515	60	57	60	0	295	58	55	58	0	630	65	62	65	0	1000	54	51	54	0	480	60	57	60	0	500	60	57	60	0
Paver	1	85	50%	600	63	60	63	0	380	62	59	62	0	700	67	64	67	0	1100	58	55	58	0	520	65	62	65	0	600	63	60	63	0
Pavement Scarafier	1	85	20%	685	62	55	58	0	480	61	54	57	0	790	65	58	61	0	1200	57	50	53	0	580	64	57	60	0	700	62	55	58	0
Architectural Coating					***63***	***59***				***60***	***56***				***71***	***67***				***57***	***53***				***62***	***58***				***71***	***67***		
Compressor (air)	1	80	40%	360	63	59	62	0	145	60	56	59	0	485	71	67	70	0	740	57	53	56	0	380	62	58	61	0	135	71	67	70	0
Maximum Combined Noise Levels					**67.9**	**79.0**				**65.3**	**64.7**				**75.8**	**72.9**				**61.6**	**60.9**				**67.4**	**67.1**				**76.4**	**73.0**		
Maximum Combined Noise Levels with County Compliance[a]					**58.9**	**71.0**				**56.6**	**56.7**				**65.9**	**64.9**				**52.9**	**52.9**				**58.9**	**59.1**				**63.4**	**65.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 2 Affordable Housing B1

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***72***	***66***				***69***	***63***				***90***	***83***				***74***	***68***				***79***	***74***				***69***	***64***		
Concrete Saw	1	90	20%	530	69	63	66	0	730	67	60	63	0	55	89	82	85	0	400	72	65	68	0	200	78	71	74	0	700	67	60	63	0
Excavator	1	85	40%	595	63	60	63	0	825	61	57	60	0	140	76	72	75	0	500	65	61	64	0	270	70	66	69	0	800	61	57	60	0
Dozer	2	85	40%	655	66	62	65	0	920	63	59	62	0	233	75	71	74	0	600	66	62	65	0	320	72	68	71	0	900	63	59	62	0
Grading					***68***	***64***				***65***	***61***				***85***	***81***				***69***	***65***				***75***	***71***				***65***	***61***		
Grader	1	85	40%	530	64	61	64	0	730	62	58	61	0	55	84	80	83	0	400	67	63	66	0	200	73	69	72	0	700	62	58	61	0
Dozer	1	85	40%	595	63	60	63	0	825	61	57	60	0	140	76	72	75	0	500	65	61	64	0	270	70	66	69	0	800	61	57	60	0
Tractor/Loader/Backhoe	1	80	40%	655	58	54	57	0	920	55	51	54	0	233	67	63	66	0	600	58	54	57	0	320	64	60	63	0	900	55	51	54	0
Building Construction					***70***	***65***				***67***	***62***				***86***	***79***				***71***	***66***				***77***	***72***				***67***	***62***		
Crane	1	85	16%	530	64	57	60	0	730	62	54	57	0	55	84	76	79	0	400	67	59	62	0	200	73	65	68	0	700	62	54	57	0
Front End Loader	2	80	40%	560	62	58	61	0	780	59	55	58	0	100	77	73	76	0	450	64	60	63	0	240	69	65	68	0	750	59	56	59	0
Tractor/Loader/Backhoe	1	80	40%	580	59	55	58	0	820	56	52	55	0	140	71	67	70	0	500	60	56	59	0	270	65	61	64	0	800	56	52	55	0
Excavator	1	85	40%	600	63	59	62	0	860	60	56	59	0	200	73	69	72	0	550	64	60	63	0	300	69	65	68	0	850	60	56	59	0
Other Equipment	1	85	50%	655	63	60	63	0	920	60	57	60	0	233	72	69	72	0	600	63	60	63	0	320	69	66	69	0	900	60	57	60	0
Paving					***69***	***65***				***66***	***62***				***85***	***80***				***71***	***66***				***76***	***72***				***66***	***62***		
Roller	1	85	20%	530	64	58	61	0	730	62	55	58	0	55	84	77	80	0	400	67	60	63	0	200	73	66	69	0	700	62	55	58	0
Tractor/Loader/Backhoe	1	80	40%	575	59	55	58	0	770	56	52	55	0	100	74	70	73	0	500	60	56	59	0	235	67	63	66	0	800	56	52	55	0
Drum Mixer	2	80	50%	595	61	58	61	0	825	59	56	59	0	140	74	71	74	0	550	62	59	62	0	270	68	65	68	0	850	58	55	58	0
Drum Mixer	2	80	50%	625	61	58	61	0	875	58	55	58	0	175	72	69	72	0	575	62	59	62	0	300	67	64	67	0	875	58	55	58	0
Paver	1	85	50%	655	63	60	63	0	920	60	57	60	0	233	72	69	72	0	600	63	60	63	0	320	69	66	69	0	900	60	57	60	0
Architectural Coating					***59***	***56***				***57***	***53***				***79***	***75***				***62***	***58***				***68***	***64***				***57***	***53***		
Compressor (air)	1	80	40%	530	59	56	59	0	730	57	53	56	0	55	79	75	78	0	400	62	58	61	0	200	68	64	67	0	700	57	53	56	0
Maximum Combined Noise Levels					**69.1**	**66.2**				**66.3**	**63.3**				**85.3**	**82.9**				**70.5**	**67.9**				**76.5**	**73.6**				**66.4**	**63.6**		
Maximum Combined Noise Levels with County Compliance[a]					**56.5**	**58.2**				**53.7**	**55.3**				**76.2**	**74.9**				**58.9**	**59.9**				**65.0**	**65.6**				**54.1**	**55.6**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 3 Affordable Housing B2

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***74***	***69***				***71***	***65***				***79***	***73***				***74***	***68***				***87***	***80***				***69***	***64***		
Concrete Saw	1	90	20%	375	72	66	69	0	570	69	62	65	0	205	78	71	74	0	400	72	65	68	0	80	86	79	82	0	700	67	60	63	0
Excavator	1	85	40%	445	66	62	65	0	670	62	58	61	0	270	70	66	69	0	500	65	61	64	0	145	76	72	75	0	800	61	57	60	0
Dozer	2	85	40%	500	68	64	67	0	745	65	61	64	0	345	71	67	70	0	600	66	62	65	0	190	76	72	75	0	900	63	59	62	0
Grading					***70***	***66***				***67***	***63***				***75***	***71***				***69***	***65***				***82***	***78***				***65***	***61***		
Grader	1	85	40%	375	67	64	67	0	570	64	60	63	0	205	73	69	72	0	400	67	63	66	0	80	81	77	80	0	700	62	58	61	0
Dozer	1	85	40%	445	66	62	65	0	670	62	58	61	0	270	70	66	69	0	500	65	61	64	0	145	76	72	75	0	800	61	57	60	0
Tractor/Loader/Backhoe	1	80	40%	500	60	56	59	0	745	57	53	56	0	345	63	59	62	0	600	58	54	57	0	190	68	64	67	0	900	55	51	54	0
Building Construction					***70***	***64***				***66***	***61***				***75***	***69***				***69***	***63***				***82***	***75***				***65***	***59***		
Crane	1	85	16%	375	67	60	63	0	570	64	56	59	0	205	73	65	68	0	400	67	59	62	0	80	81	73	76	0	700	62	54	57	0
Front End Loader	2	80	40%	445	64	60	63	0	670	60	56	59	0	270	68	64	67	0	500	63	59	62	0	145	74	70	73	0	800	59	55	58	0
Tractor/Loader/Backhoe	2	80	40%	500	63	59	62	0	745	60	56	59	0	345	66	62	65	0	600	61	57	60	0	190	71	67	70	0	900	58	54	57	0
Paving					***72***	***68***				***68***	***64***				***76***	***71***				***71***	***66***				***83***	***78***				***66***	***62***		
Roller	1	85	20%	375	67	61	64	0	570	64	57	60	0	205	73	66	69	0	400	67	60	63	0	80	81	74	77	0	700	62	55	58	0
Tractor/Loader/Backhoe	1	80	40%	410	62	58	61	0	670	57	53	56	0	270	65	61	64	0	500	60	56	59	0	125	72	68	71	0	800	56	52	55	0
Drum mixer	2	80	50%	445	64	61	64	0	700	60	57	60	0	300	67	64	67	0	550	62	59	62	0	145	74	71	74	0	850	58	55	58	0
Drum mixer	2	80	50%	475	63	60	63	0	725	60	57	60	0	325	67	64	67	0	575	62	59	62	0	175	72	69	72	0	875	58	55	58	0
Paver	1	85	50%	500	65	62	65	0	745	62	59	62	0	345	68	65	68	0	600	63	60	63	0	190	73	70	73	0	900	60	57	60	0
Architectural Coating					***62***	***59***				***59***	***55***				***68***	***64***				***62***	***58***				***76***	***72***				***57***	***53***		
Compressor (air)	1	80	40%	375	62	59	62	0	570	59	55	58	0	205	68	64	67	0	400	62	58	61	0	80	76	72	75	0	700	57	53	56	0
Maximum Combined Noise Levels					**71.8**	**68.9**				**68.1**	**65.3**				**75.9**	**73.3**				**70.5**	**67.9**				**83.0**	**80.4**				**66.4**	**63.6**		
Maximum Combined Noise Levels with County Compliance[a]					**59.5**	**60.9**				**55.9**	**57.3**				**64.7**	**65.3**				**58.9**	**59.9**				**72.9**	**72.4**				**54.1**	**55.6**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 4 Office Building

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***81***	***77***				***65***	***61***				***64***	***60***				***65***	***61***				***82***	***78***				***62***	***58***		
Tractor/Loader/Backhoe	1	80	40%	50	80	76	79	0	525	60	56	59	0	565	59	55	58	0	525	60	56	59	0	45	81	77	80	0	760	56	52	55	0
Tractor/Loader/Backhoe	1	80	40%	135	71	67	70	0	650	58	54	57	0	685	57	53	56	0	600	58	54	57	0	120	72	68	71	0	860	55	51	54	0
Dozer	1	85	40%	240	71	67	70	0	715	62	58	61	0	775	61	57	60	0	750	61	57	60	0	280	70	66	69	0	960	59	55	58	0
Grading					***86***	***82***				***68***	***64***				***67***	***63***				***68***	***64***				***87***	***83***				***65***	***61***		
Grader	1	85	40%	50	85	81	84	0	525	65	61	64	0	565	64	60	63	0	525	65	61	64	0	45	86	82	85	0	760	61	57	60	0
Dozer	1	85	40%	135	76	72	75	0	650	63	59	62	0	686	62	58	61	0	600	63	59	62	0	120	77	73	76	0	860	60	56	59	0
Tractor/Loader/Backhoe	2	80	40%	240	69	65	68	0	715	60	56	59	0	775	59	55	58	0	750	59	56	59	0	280	68	64	67	0	960	57	53	56	0
Building Construction					***86***	***79***				***67***	***62***				***67***	***61***				***67***	***62***				***87***	***80***				***64***	***59***		
Crane	1	85	16%	50	85	77	80	0	525	65	57	60	0	565	64	56	59	0	525	65	57	60	0	45	86	78	81	0	760	61	53	56	0
Front End Loader	1	80	40%	80	76	72	75	0	600	58	54	57	0	620	58	54	57	0	600	58	54	57	0	80	76	72	75	0	800	56	52	55	0
Generator	1	82	50%	130	74	71	74	0	650	60	57	60	0	680	59	56	59	0	650	60	57	60	0	120	74	71	74	0	860	57	54	57	0
Tractor/Loader/Backhoe	1	80	40%	180	69	65	68	0	680	57	53	56	0	720	57	53	56	0	700	57	53	56	0	190	68	64	67	0	900	55	51	54	0
Welder	3	73	40%	240	64	60	63	0	715	55	51	54	0	775	54	50	53	0	750	54	50	53	0	280	63	59	62	0	960	52	48	51	0
Phse 3/4/5 Overlap																																	
Paving					***86***	***80***				***69***	***64***				***68***	***63***				***69***	***63***				***85***	***79***				***66***	***61***		
Roller	1	85	20%	50	85	78	81	0	525	65	58	61	0	565	64	57	60	0	525	65	58	61	0	60	83	76	79	0	760	61	54	57	0
Tractor/Loader/Backhoe	1	80	40%	80	76	72	75	0	600	58	54	57	0	620	58	54	57	0	600	58	54	57	0	80	76	72	75	0	800	56	52	55	0
Drum Mixer	1	80	50%	130	72	69	72	0	650	58	55	58	0	680	57	54	57	0	650	58	55	58	0	120	72	69	72	0	860	55	52	55	0
Paver	1	85	50%	180	74	71	74	0	680	62	59	62	0	720	62	59	62	0	700	62	59	62	0	190	73	70	73	0	900	60	57	60	0
Pavement Scarafier	1	85	20%	240	71	64	67	0	715	62	55	58	0	775	61	54	57	0	750	61	54	57	0	280	70	63	66	0	960	59	52	55	0
Architectural Coating					***80***	***76***				***60***	***56***				***59***	***55***				***60***	***56***				***81***	***77***				***56***	***52***		
Compressor (air)	1	80	40%	50	80	76	79	0	525	60	56	59	0	565	59	55	58	0	525	60	56	59	0	45	81	77	80	0	760	56	52	55	0
Maximum Combined Noise Levels					**86.1**	**81.7**				**68.7**	**63.6**				**68.1**	**63.1**				**68.6**	**63.8**				**84.9**	**82.6**				**65.9**	**61.0**		
Maximum Combined Noise Levels with County Compliance[a]					**78.1**	**73.7**				**60.7**	**55.6**				**60.1**	**55.1**				**60.6**	**55.8**				**76.9**	**74.6**				**57.9**	**53.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 5 Student Housing B2

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***67***	***63***				***68***	***64***				***68***	***64***				***62***	***58***				***69***	***65***				***68***	***64***		
Tractor/Loader/Backhoe	1	80	40%	385	62	58	61	0	390	62	58	61	0	360	63	59	62	0	850	55	51	54	0	315	64	60	63	0	400	62	58	61	0
Tractor/Loader/Backhoe	1	80	40%	500	60	56	59	0	430	61	57	60	0	440	61	57	60	0	875	55	51	54	0	360	63	59	62	0	425	61	57	60	0
Dozer	1	85	40%	610	63	59	62	0	490	65	61	64	0	535	64	60	63	0	900	60	56	59	0	430	66	62	65	0	475	65	61	64	0
Grading					***70***	***66***				***70***	***66***				***70***	***66***				***64***	***60***				***72***	***68***				***70***	***66***		
Grader	1	85	40%	385	67	63	66	0	390	67	63	66	0	360	68	64	67	0	850	60	56	59	0	315	69	65	68	0	400	67	63	66	0
Dozer	1	85	40%	500	65	61	64	0	430	66	62	65	0	440	66	62	65	0	875	60	56	59	0	360	68	64	67	0	425	66	62	65	0
Tractor/Loader/Backhoe	1	80	40%	610	58	54	57	0	490	60	56	59	0	535	59	55	58	0	900	55	51	54	0	430	61	57	60	0	475	60	56	59	0
Building Construction					***70***	***64***				***70***	***65***				***71***	***65***				***64***	***58***				***72***	***66***				***70***	***64***		
Crane	1	85	16%	385	67	59	62	0	390	67	59	62	0	360	68	60	63	0	850	60	52	55	0	315	69	61	64	0	400	67	59	62	0
Front End Loader	2	80	40%	450	64	60	63	0	410	65	61	64	0	400	65	61	64	0	875	58	54	57	0	360	66	62	65	0	425	64	60	63	0
Tractor/Loader/Backhoe	2	80	40%	550	62	58	61	0	475	63	59	62	0	500	63	59	62	0	900	58	54	57	0	430	64	60	63	0	475	63	59	62	0
Paving					***71***	***67***				***72***	***68***				***72***	***68***				***66***	***62***				***73***	***69***				***72***	***68***		
Roller	1	85	20%	385	67	60	63	0	390	67	60	63	0	360	68	61	64	0	850	60	53	56	0	315	69	62	65	0	400	67	60	63	0
Tractor/Loader/Backhoe	1	80	40%	450	61	57	60	0	410	62	58	61	0	400	62	58	61	0	860	55	51	54	0	330	64	60	63	0	410	62	58	61	0
Drum Mixer	2	80	50%	500	63	60	63	0	430	64	61	64	0	440	64	61	64	0	875	58	55	58	0	360	66	63	66	0	425	64	61	64	0
Drum Mixer	2	80	50%	500	63	60	63	0	430	64	61	64	0	440	64	61	64	0	890	58	55	58	0	360	66	63	66	0	440	64	61	64	0
Paver	1	85	50%	550	64	61	64	0	475	65	62	65	0	500	65	62	65	0	900	60	57	60	0	430	66	63	66	0	475	65	62	65	0
Architectural Coating					***62***	***58***				***62***	***58***				***63***	***59***				***55***	***51***				***64***	***60***				***62***	***58***		
Compressor (air)	1	80	40%	385	62	58	61	0	390	62	58	61	0	360	63	59	62	0	850	55	51	54	0	315	64	60	63	0	400	62	58	61	0
Maximum Combined Noise Levels					**71.2**	**66.9**				**71.9**	**67.8**				**72.0**	**67.8**				**65.7**	**61.7**				**73.5**	**69.3**				**71.8**	**67.8**		
Maximum Combined Noise Levels with County Compliance[a]					**63.2**	**58.9**				**63.9**	**59.8**				**64.0**	**59.8**				**57.7**	**53.7**				**65.5**	**61.3**				**63.8**	**59.8**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 6 Affordable Housing B3

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***65***	***61***				***61***	***57***				***80***	***76***				***72***	***68***				***71***	***67***				***61***	***57***		
Tractor/Loader/Backhoe	1	80	40%	545	59	55	58	0	920	55	51	54	0	55	79	75	78	0	180	69	65	68	0	225	67	63	66	0	900	55	51	54	0
Tractor/Loader/Backhoe	1	80	40%	610	58	54	57	0	1000	54	50	53	0	155	70	66	69	0	280	65	61	64	0	300	64	60	63	0	1000	54	50	53	0
Dozer	1	85	40%	720	62	58	61	0	1145	58	54	57	0	255	71	67	70	0	380	67	63	66	0	420	67	63	66	0	1100	58	54	57	0
Grading					***65***	***61***				***61***	***57***				***84***	***80***				***74***	***70***				***72***	***68***				***61***	***57***		
Dozer	1	85	40%	545	64	60	63	0	920	60	56	59	0	55	84	80	83	0	180	74	70	73	0	225	72	68	71	0	900	60	56	59	0
Tractor/Loader/Backhoe	1	80	40%	720	57	53	56	0	1145	53	49	52	0	255	66	62	65	0	380	62	58	61	0	420	62	58	61	0	1100	53	49	52	0
Building Construction					***68***	***63***				***64***	***59***				***85***	***78***				***76***	***70***				***75***	***69***				***64***	***59***		
Crane	1	85	16%	545	64	56	59	0	920	60	52	55	0	55	84	76	79	0	180	74	66	69	0	225	72	64	67	0	900	60	52	55	0
Forklift	2	75	10%	610	56	46	49	0	1000	52	42	45	0	155	68	58	61	0	280	63	53	56	0	300	62	52	55	0	1000	52	42	45	0
Tractor/Loader/Backhoe	1	80	40%	650	58	54	57	0	1050	54	50	53	0	190	68	64	67	0	320	64	60	63	0	350	63	59	62	0	1050	54	50	53	0
Excavator	1	85	40%	680	62	58	61	0	1100	58	54	57	0	230	72	68	71	0	350	68	64	67	0	400	67	63	66	0	1080	58	54	57	0
Other Equipment	1	85	50%	720	62	59	62	0	1145	58	55	58	0	255	71	68	71	0	380	67	64	67	0	420	67	64	67	0	1100	58	55	58	0
Paving					***69***	***65***				***80***	***77***				***85***	***80***				***77***	***72***				***75***	***71***				***65***	***60***		
Roller	1	85	20%	545	64	57	60	0	920	60	53	56	0	55	84	77	80	0	180	74	67	70	0	225	72	65	68	0	900	60	53	56	0
Tractor/Loader/Backhoe	1	80	40%	570	59	55	58	0	975	54	50	53	0	100	74	70	73	0	225	67	63	66	0	275	65	61	64	0	950	54	50	53	0
Drum Mixer	2	80	50%	610	61	58	61	0	100	77	74	77	0	155	73	70	73	0	280	68	65	68	0	300	67	64	67	0	1000	57	54	57	0
Drum Mixer	2	80	50%	610	61	58	61	0	100	77	74	77	0	155	73	70	73	0	325	67	64	67	0	300	67	64	67	0	1050	57	54	57	0
Paver	1	85	50%	720	62	59	62	0	1145	58	55	58	0	255	71	68	71	0	380	67	64	67	0	420	67	64	67	0	1100	58	55	58	0
Architectural Coating					***59***	***55***				***55***	***51***				***79***	***75***				***69***	***65***				***67***	***63***				***55***	***51***		
Compressor (air)	1	80	40%	545	59	55	58	0	920	55	51	54	0	55	79	75	78	0	180	69	65	68	0	225	67	63	66	0	900	55	51	54	0
Maximum Combined Noise Levels					**68.8**	**64.7**				**80.1**	**77.0**				**85.3**	**80.3**				**76.6**	**71.8**				**75.4**	**70.9**				**64.6**	**60.5**		
Maximum Combined Noise Levels with County Compliance[a]					**60.8**	**56.7**				**72.1**	**69.0**				**77.3**	**72.3**				**68.6**	**63.8**				**67.4**	**62.9**				**56.6**	**52.5**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 7 Affordable Housing B4

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***68***	***64***				***61***	***57***				***72***	***68***				***72***	***68***				***80***	***76***				***61***	***57***		
Tractor/Loader/Backhoe	1	80	40%	380	62	58	61	0	900	55	51	54	0	190	68	64	67	0	180	69	65	68	0	60	78	74	77	0	900	55	51	54	0
Tractor/Loader/Backhoe	1	80	40%	440	61	57	60	0	1000	54	50	53	0	290	65	61	64	0	280	65	61	64	0	130	72	68	71	0	1000	54	50	53	0
Dozer	1	85	40%	530	64	61	64	0	1100	58	54	57	0	370	68	64	67	0	380	67	63	66	0	245	71	67	70	0	1100	58	54	57	0
Grading					***68***	***64***				***61***	***57***				***74***	***70***				***74***	***70***				***83***	***80***				***61***	***57***		
Dozer	1	85	40%	380	67	63	66	0	900	60	56	59	0	190	73	69	72	0	180	74	70	73	0	60	83	79	82	0	900	60	56	59	0
Tractor/Loader/Backhoe	1	80	40%	530	59	56	59	0	1100	53	49	52	0	370	63	59	62	0	380	62	58	61	0	245	66	62	65	0	1100	53	49	52	0
Building Construction					***71***	***66***				***64***	***59***				***76***	***70***				***76***	***71***				***85***	***78***				***64***	***59***		
Crane	1	85	16%	380	67	59	62	0	900	60	52	55	0	190	73	65	68	0	180	74	66	69	0	60	83	75	78	0	900	60	52	55	0
Forklift	2	75	10%	420	60	50	53	0	950	52	42	45	0	230	65	55	58	0	225	65	55	58	0	100	72	62	65	0	950	52	42	45	0
Tractor/Loader/Backhoe	1	80	40%	440	61	57	60	0	1000	54	50	53	0	290	65	61	64	0	280	65	61	64	0	130	72	68	71	0	1000	54	50	53	0
Excavator	1	85	40%	480	65	61	64	0	1050	59	55	58	0	320	69	65	68	0	325	69	65	68	0	200	73	69	72	0	1050	59	55	58	0
Other Equipment	1	85	50%	530	64	61	64	0	1100	58	55	58	0	370	68	65	68	0	380	67	64	67	0	245	71	68	71	0	1100	58	55	58	0
Paving					***72***	***67***				***65***	***60***				***76***	***71***				***76***	***71***				***85***	***79***				***65***	***60***		
Roller	1	85	20%	380	67	60	63	0	900	60	53	56	0	190	73	66	69	0	190	73	66	69	0	60	83	76	79	0	900	60	53	56	0
Tractor/Loader/Backhoe	1	80	40%	420	62	58	61	0	950	54	50	53	0	230	67	63	66	0	225	67	63	66	0	100	74	70	73	0	950	54	50	53	0
Drum Mixer	1	80	50%	440	61	58	61	0	1000	54	51	54	0	290	65	62	65	0	280	65	62	65	0	130	72	69	72	0	1000	54	51	54	0
Paver	1	85	50%	480	65	62	65	0	1050	59	56	59	0	320	69	66	69	0	325	69	66	69	0	200	73	70	73	0	1050	59	56	59	0
Pavement Scarafier	1	85	20%	530	64	58	61	0	1100	58	51	54	0	370	68	61	64	0	380	67	60	63	0	245	71	64	67	0	1100	58	51	54	0
Architectural Coating					***62***	***58***				***55***	***51***				***68***	***64***				***69***	***65***				***78***	***74***				***55***	***51***		
Compressor (air)	1	80	40%	380	62	58	61	0	900	55	51	54	0	190	68	64	67	0	180	69	65	68	0	60	78	74	77	0	900	55	51	54	0
Maximum Combined Noise Levels					**71.6**	**66.6**				**64.6**	**59.6**				**76.3**	**71.1**				**76.3**	**71.1**				**84.7**	**79.5**				**64.6**	**59.6**		
Maximum Combined Noise Levels with County Compliance[a]					**63.6**	**58.6**				**56.6**	**51.6**				**68.3**	**63.1**				**68.3**	**63.1**				**76.7**	**71.5**				**56.6**	**51.6**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 8 Parking Structure

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***86***	***82***				***77***	***73***				***65***	***61***				***62***	***58***				***68***	***64***				***65***	***61***		
Tractor/Loader/Backhoe	1	80	40%	25	86	82	85	0	75	76	72	75	0	725	57	53	56	0	780	56	52	55	0	275	65	61	64	0	600	58	54	57	0
Tractor/Loader/Backhoe	1	80	40%	260	66	62	65	0	415	62	58	61	0	814	56	52	55	0	1250	52	48	51	0	550	59	55	58	0	900	55	51	54	0
Dozer	3	85	40%	510	70	66	69	0	750	66	62	65	0	980	64	60	63	0	1500	60	56	59	0	925	64	60	63	0	1075	63	59	62	0
Grading					***73***	***69***				***82***	***78***				***65***	***61***				***63***	***59***				***71***	***67***				***66***	***62***		
Grader	1	85	40%	260	71	67	70	0	75	81	77	80	0	725	62	58	61	0	780	61	57	60	0	275	70	66	69	0	600	63	59	62	0
Dozer	1	85	40%	310	69	65	68	0	415	67	63	66	0	814	61	57	60	0	1250	57	53	56	0	550	64	60	63	0	900	60	56	59	0
Tractor/Loader/Backhoe	2	80	40%	510	63	59	62	0	750	59	56	59	0	980	57	53	56	0	1500	53	49	52	0	925	58	54	57	0	1075	56	52	55	0
Building Construction					***91***	***83***				***82***	***74***				***66***	***61***				***65***	***60***				***72***	***67***				***66***	***61***		
Crane	1	85	16%	25	91	83	86	0	75	81	74	77	0	725	62	54	57	0	780	61	53	56	0	275	70	62	65	0	600	63	55	58	0
Front End Loader	1	80	40%	160	70	66	69	0	280	65	61	64	0	775	56	52	55	0	850	55	51	54	0	350	63	59	62	0	800	56	52	55	0
Generator	1	82	50%	260	68	65	68	0	415	64	61	64	0	814	58	55	58	0	950	56	53	56	0	450	63	60	63	0	900	57	54	57	0
Tractor/Loader/Backhoe	1	80	40%	360	63	59	62	0	550	59	55	58	0	900	55	51	54	0	1050	54	50	53	0	550	59	55	58	0	950	54	50	53	0
Other Equipment	1	85	50%	460	66	63	66	0	550	64	61	64	0	900	60	57	60	0	1250	57	54	57	0	750	61	58	61	0	1000	59	56	59	0
Welder	3	73	40%	510	58	54	57	0	750	54	50	53	0	980	52	48	51	0	1500	48	44	47	0	925	52	48	51	0	1075	51	47	50	0
Paving					***91***	***84***				***82***	***75***				***66***	***61***				***64***	***59***				***73***	***67***				***66***	***61***		
Roller	1	85	20%	25	91	84	87	0	75	81	74	77	0	725	62	55	58	0	780	61	54	57	0	250	71	64	67	0	600	63	56	59	0
Tractor/Loader/Backhoe	1	80	40%	160	70	66	69	0	280	65	61	64	0	775	56	52	55	0	850	55	51	54	0	350	63	59	62	0	800	56	52	55	0
Drum Mixer	1	80	50%	260	66	63	66	0	415	62	59	62	0	814	56	53	56	0	950	54	51	54	0	450	61	58	61	0	900	55	52	55	0
Paver	1	85	50%	360	68	65	68	0	550	64	61	64	0	900	60	57	60	0	1250	57	54	57	0	650	63	60	63	0	1000	59	56	59	0
Pavement Scarafier	1	85	20%	510	65	58	61	0	750	61	54	57	0	980	59	52	55	0	1500	55	48	51	0	925	60	53	56	0	1075	58	51	54	0
Architectural Coating					***88***	***84***				***76***	***72***				***57***	***53***				***56***	***52***				***66***	***62***				***58***	***54***		
Compressor (air)	1	80	40%	20	88	84	87	0	75	76	72	75	0	725	57	53	56	0	780	56	52	55	0	250	66	62	65	0	600	58	54	57	0
Maximum Combined Noise Levels					**91.1**	**84.2**				**81.7**	**77.7**				**66.1**	**61.4**				**64.4**	**59.7**				**72.7**	**67.4**				**66.4**	**61.6**		
Maximum Combined Noise Levels with County Compliance[a]					**83.1**	**76.2**				**73.7**	**69.7**				**58.1**	**53.4**				**56.4**	**51.7**				**64.7**	**59.4**				**58.4**	**53.6**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**Yes**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 9 Student Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***69***	***65***				***65***	***61***				***78***	***74***				***69***	***65***				***76***	***72***				***66***	***62***		
Tractor/Loader/Backhoe	1	80	40%	400	62	58	61	0	750	56	52	55	0	90	75	71	74	0	500	60	56	59	0	150	70	66	69	0	700	57	53	56	0
Tractor/Loader/Backhoe	1	80	40%	500	60	56	59	0	850	55	51	54	0	150	70	66	69	0	550	59	55	58	0	250	66	62	65	0	800	56	52	55	0
Dozer	3	85	40%	650	67	64	67	0	1050	63	59	62	0	350	73	69	72	0	600	68	64	67	0	325	74	70	73	0	900	65	61	64	0
Grading					***70***	***66***				***65***	***61***				***81***	***77***				***69***	***65***				***77***	***73***				***65***	***61***		
Grader	1	85	40%	400	67	63	66	0	750	61	57	60	0	90	80	76	79	0	500	65	61	64	0	150	75	71	74	0	700	62	58	61	0
Dozer	1	85	40%	500	65	61	64	0	850	60	56	59	0	150	75	71	74	0	550	64	60	63	0	250	71	67	70	0	800	61	57	60	0
Tractor/Loader/Backhoe	2	80	40%	650	61	57	60	0	1050	57	53	56	0	350	66	62	65	0	600	61	57	60	0	325	67	63	66	0	900	58	54	57	0
Building Construction					***70***	***64***				***64***	***59***				***81***	***74***				***68***	***63***				***78***	***72***				***65***	***60***		
Crane	1	85	16%	400	67	59	62	0	750	61	54	57	0	90	80	72	75	0	500	65	57	60	0	150	75	67	70	0	700	62	54	57	0
Front End Loader	1	80	40%	450	61	57	60	0	800	56	52	55	0	150	70	66	69	0	525	60	56	59	0	175	69	65	68	0	750	56	52	55	0
Generator	1	82	50%	500	62	59	62	0	850	57	54	57	0	200	70	67	70	0	550	61	58	61	0	200	70	67	70	0	800	58	55	58	0
Tractor/Loader/Backhoe	1	80	40%	550	59	55	58	0	900	55	51	54	0	250	66	62	65	0	575	59	55	58	0	250	66	62	65	0	850	55	51	54	0
Welder	3	73	40%	650	55	52	55	0	1050	51	47	50	0	350	61	57	60	0	600	56	52	55	0	325	62	58	61	0	900	53	49	52	0
Paving					***71***	***66***				***66***	***61***				***81***	***75***				***70***	***65***				***78***	***73***				***67***	***62***		
Roller	1	85	20%	400	67	60	63	0	750	61	54	57	0	90	80	73	76	0	500	65	58	61	0	150	75	68	71	0	700	62	55	58	0
Tractor/Loader/Backhoe	1	80	40%	450	61	57	60	0	800	56	52	55	0	150	70	66	69	0	525	60	56	59	0	175	69	65	68	0	750	56	52	55	0
Drum Mixer	1	80	50%	500	60	57	60	0	850	55	52	55	0	200	68	65	68	0	550	59	56	59	0	200	68	65	68	0	800	56	53	56	0
Paver	1	85	50%	550	64	61	64	0	900	60	57	60	0	250	71	68	71	0	575	64	61	64	0	250	71	68	71	0	850	60	57	60	0
Pavement Scarafier	1	85	20%	650	63	56	59	0	1050	59	52	55	0	350	68	61	64	0	600	63	56	59	0	325	69	62	65	0	900	60	53	56	0
Architectural Coating					***62***	***58***				***56***	***52***				***75***	***71***				***60***	***56***				***70***	***66***				***57***	***53***		
Compressor (air)	1	80	40%	400	62	58	61	0	750	56	52	55	0	90	75	71	74	0	500	60	56	59	0	150	70	66	69	0	700	57	53	56	0
Maximum Combined Noise Levels					**70.7**	**65.7**				**65.8**	**60.9**				**81.3**	**77.4**				**69.8**	**65.3**				**78.4**	**73.3**				**66.6**	**61.9**		
Maximum Combined Noise Levels with County Compliance[a]					**62.7**	**57.7**				**57.8**	**52.9**				**73.3**	**69.4**				**61.8**	**57.3**				**70.4**	**65.3**				**58.6**	**53.9**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 10 Athletics Facility

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***72***	***68***				***72***	***68***				***66***	***62***				***64***	***60***				***71***	***67***				***68***	***64***		
Tractor/Loader/Backhoe	1	80	40%	200	68	64	67	0	200	68	64	67	0	600	58	54	57	0	820	56	52	55	0	245	66	62	65	0	450	61	57	60	0
Tractor/Loader/Backhoe	1	80	40%	390	62	58	61	0	370	63	59	62	0	750	56	52	55	0	1020	54	50	53	0	475	60	56	59	0	575	59	55	58	0
Dozer	3	85	40%	550	69	65	68	0	540	69	65	68	0	850	65	61	64	0	1163	62	58	61	0	600	68	64	67	0	725	67	63	66	0
Grading					***74***	***70***				***74***	***70***				***66***	***62***				***64***	***60***				***73***	***69***				***69***	***65***		
Grader	1	85	40%	200	73	69	72	0	200	73	69	72	0	600	63	59	62	0	820	61	57	60	0	245	71	67	70	0	450	66	62	65	0
Dozer	1	85	40%	390	67	63	66	0	370	68	64	67	0	750	61	57	60	0	1020	59	55	58	0	475	65	61	64	0	525	65	61	64	0
Tractor/Loader/Backhoe	2	80	40%	550	62	58	61	0	540	62	58	61	0	850	58	54	57	0	1163	56	52	55	0	600	61	57	60	0	725	60	56	59	0
Building Construction					***74***	***68***				***74***	***68***				***66***	***61***				***63***	***58***				***73***	***66***				***68***	***63***		
Crane	1	85	16%	200	73	65	68	0	200	73	65	68	0	600	63	55	58	0	820	61	53	56	0	245	71	63	66	0	450	66	58	61	0
Front End Loader	1	80	40%	300	64	60	63	0	300	64	60	63	0	675	57	53	56	0	900	55	51	54	0	350	63	59	62	0	500	60	56	59	0
Generator	1	82	50%	390	64	61	64	0	370	65	62	65	0	750	58	55	58	0	1020	56	53	56	0	475	62	59	62	0	575	61	58	61	0
Tractor/Loader/Backhoe	1	80	40%	450	61	57	60	0	450	61	57	60	0	800	56	52	55	0	1100	53	49	52	0	550	59	55	58	0	650	58	54	57	0
Welder	3	73	40%	550	57	53	56	0	540	57	53	56	0	850	53	49	52	0	1163	50	46	49	0	600	56	52	55	0	725	55	51	54	0
Paving					***76***	***70***				***76***	***70***				***68***	***64***				***66***	***61***				***74***	***69***				***70***	***66***		
Roller	1	85	20%	200	73	66	69	0	200	73	66	69	0	600	63	56	59	0	820	61	54	57	0	245	71	64	67	0	450	66	59	62	0
Tractor/Loader/Backhoe	1	80	40%	300	64	60	63	0	300	64	60	63	0	675	57	53	56	0	900	55	51	54	0	350	63	59	62	0	500	60	56	59	0
Drum Mixer	2	80	50%	390	65	62	65	0	370	66	63	66	0	750	59	56	59	0	1020	57	54	57	0	475	63	60	63	0	575	62	59	62	0
Drum Mixer	2	80	50%	390	65	62	65	0	370	66	63	66	0	750	59	56	59	0	1050	57	54	57	0	475	63	60	63	0	625	61	58	61	0
Paver	1	85	50%	450	66	63	66	0	450	66	63	66	0	800	61	58	61	0	1100	58	55	58	0	550	64	61	64	0	650	63	60	63	0
Pavement Scarafier	1	85	20%	550	64	57	60	0	540	64	57	60	0	850	60	53	56	0	1163	58	51	54	0	600	63	56	59	0	725	62	55	58	0
Architectural Coating					***68***	***64***				***68***	***64***				***58***	***54***				***56***	***52***				***66***	***62***				***61***	***57***		
Compressor (air)	1	80	40%	200	68	64	67	0	200	68	64	67	0	600	58	54	57	0	820	56	52	55	0	245	66	62	65	0	450	61	57	60	0
Maximum Combined Noise Levels					**75.5**	**70.3**				**75.6**	**70.5**				**68.4**	**63.8**				**65.6**	**61.0**				**73.9**	**68.7**				**70.4**	**65.8**		
Maximum Combined Noise Levels with County Compliance[a]					**65.0**	**62.3**				**65.0**	**62.5**				**55.4**	**55.8**				**52.7**	**53.0**				**63.2**	**60.7**				**57.9**	**57.8**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 11 Senior Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***66***	***62***				***60***	***56***				***78***	***74***				***77***	***73***				***69***	***65***				***60***	***56***		
Tractor/Loader/Backhoe	1	80	40%	455	61	57	60	0	1125	53	49	52	0	70	77	73	76	0	90	75	71	74	0	315	64	60	63	0	1150	53	49	52	0
Tractor/Loader/Backhoe	1	80	40%	550	59	55	58	0	1175	53	49	52	0	175	69	65	68	0	150	70	66	69	0	380	62	58	61	0	1180	53	49	52	0
Dozer	1	85	40%	680	62	58	61	0	1225	57	53	56	0	300	69	65	68	0	250	71	67	70	0	480	65	61	64	0	1225	57	53	56	0
Grading					***66***	***62***				***59***	***55***				***82***	***78***				***80***	***76***				***70***	***66***				***59***	***55***		
Dozer	1	85	40%	455	66	62	65	0	1125	58	54	57	0	70	82	78	81	0	90	80	76	79	0	315	69	65	68	0	1150	58	54	57	0
Tractor/Loader/Backhoe	1	80	40%	680	57	53	56	0	1225	52	48	51	0	300	64	60	63	0	250	66	62	65	0	480	60	56	59	0	1225	52	48	51	0
Building Construction					***69***	***63***				***62***	***56***				***83***	***75***				***81***	***74***				***72***	***66***				***62***	***56***		
Crane	1	85	16%	455	66	58	61	0	1125	58	50	53	0	70	82	74	77	0	90	80	72	75	0	315	69	61	64	0	1150	58	50	53	0
Forklift	2	75	10%	550	57	47	50	0	1175	51	41	44	0	175	67	57	60	0	150	68	58	61	0	380	60	50	53	0	1180	51	41	44	0
Tractor/Loader/Backhoe	1	80	40%	600	58	54	57	0	1200	52	48	51	0	200	68	64	67	0	200	68	64	67	0	430	61	57	60	0	1200	52	48	51	0
Excavator	1	85	40%	650	63	59	62	0	1210	57	53	56	0	250	71	67	70	0	225	72	68	71	0	460	66	62	65	0	1210	57	53	56	0
Pumps	1	77	50%	680	54	51	54	0	1225	49	46	49	0	300	61	58	61	0	250	63	60	63	0	480	57	54	57	0	1225	49	46	49	0
Paving					***70***	***66***				***63***	***59***				***83***	***78***				***82***	***77***				***73***	***69***				***63***	***59***		
Roller	1	85	20%	455	66	59	62	0	1125	58	51	54	0	70	82	75	78	0	90	80	73	76	0	315	69	62	65	0	1150	58	51	54	0
Tractor/Loader/Backhoe	1	80	40%	500	60	56	59	0	1150	53	49	52	0	125	72	68	71	0	125	72	68	71	0	350	63	59	62	0	1180	53	49	52	0
Drum Mixer	2	80	50%	550	62	59	62	0	1175	56	53	56	0	175	72	69	72	0	150	73	70	73	0	380	65	62	65	0	1200	55	52	55	0
Drum Mixer	2	80	50%	550	62	59	62	0	1175	56	53	56	0	175	72	69	72	0	175	72	69	72	0	380	65	62	65	0	1215	55	52	55	0
Paver	1	85	50%	680	62	59	62	0	1225	57	54	57	0	300	69	66	69	0	250	71	68	71	0	480	65	62	65	0	1225	57	54	57	0
Architectural Coating					***61***	***57***				***53***	***49***				***77***	***73***				***75***	***71***				***64***	***60***				***53***	***49***		
Compressor (air)	1	80	40%	455	61	57	60	0	1125	53	49	52	0	70	77	73	76	0	90	75	71	74	0	315	64	60	63	0	1150	53	49	52	0
Maximum Combined Noise Levels					**69.9**	**65.6**				**63.1**	**59.2**				**83.4**	**78.2**				**82.2**	**77.1**				**73.1**	**68.8**				**63.0**	**59.0**		
Maximum Combined Noise Levels with County Compliance[a]					**61.9**	**57.6**				**55.1**	**51.2**				**75.4**	**70.2**				**74.2**	**69.1**				**65.1**	**60.8**				**55.0**	**51.0**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 12 Student Housing 3

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***64***	***60***				***68***	***64***				***70***	***66***				***61***	***57***				***67***	***63***				***70***	***66***		
Tractor/Loader/Backhoe	1	80	40%	590	59	55	58	0	310	64	60	63	0	220	67	63	66	0	750	56	52	55	0	325	64	60	63	0	200	68	64	67	0
Tractor/Loader/Backhoe	1	80	40%	670	57	53	56	0	450	61	57	60	0	410	62	58	61	0	920	55	51	54	0	480	60	56	59	0	350	63	59	62	0
Dozer	1	85	40%	770	61	57	60	0	635	63	59	62	0	575	64	60	63	0	1100	58	54	57	0	630	63	59	62	0	600	63	59	62	0
Grading					***67***	***63***				***71***	***67***				***74***	***70***				***64***	***60***				***71***	***67***				***74***	***70***		
Grader	1	85	40%	590	64	60	63	0	310	69	65	68	0	220	72	68	71	0	750	61	57	60	0	325	69	65	68	0	200	73	69	72	0
Dozer	1	85	40%	670	62	58	61	0	450	66	62	65	0	410	67	63	66	0	920	60	56	59	0	480	65	61	64	0	350	68	64	67	0
Tractor/Loader/Backhoe	2	80	40%	770	59	55	58	0	635	61	57	60	0	575	62	58	61	0	1100	56	52	55	0	630	61	57	60	0	600	61	57	60	0
Building Construction					***67***	***61***				***71***	***65***				***74***	***67***				***64***	***59***				***71***	***65***				***74***	***68***		
Crane	1	85	16%	590	64	56	59	0	310	69	61	64	0	220	72	64	67	0	750	61	54	57	0	325	69	61	64	0	200	73	65	68	0
Front End Loader	1	80	40%	625	58	54	57	0	400	62	58	61	0	310	64	60	63	0	850	55	51	54	0	400	62	58	61	0	275	65	61	64	0
Generator	1	82	50%	670	59	56	59	0	450	63	60	63	0	410	64	61	64	0	920	57	54	57	0	480	62	59	62	0	350	65	62	65	0
Tractor/Loader/Backhoe	1	80	40%	725	57	53	56	0	550	59	55	58	0	500	60	56	59	0	1000	54	50	53	0	550	59	55	58	0	450	61	57	60	0
Welder	3	73	40%	770	54	50	53	0	635	56	52	55	0	575	57	53	56	0	1100	51	47	50	0	630	56	52	55	0	600	56	52	55	0
Paving					***68***	***63***				***72***	***67***				***74***	***69***				***65***	***60***				***72***	***66***				***75***	***69***		
Roller	1	85	20%	590	64	57	60	0	310	69	62	65	0	220	72	65	68	0	750	61	54	57	0	325	69	62	65	0	200	73	66	69	0
Tractor/Loader/Backhoe	1	80	40%	625	58	54	57	0	400	62	58	61	0	310	64	60	63	0	850	55	51	54	0	400	62	58	61	0	275	65	61	64	0
Drum Mixer	1	80	50%	670	57	54	57	0	450	61	58	61	0	410	62	59	62	0	920	55	52	55	0	480	60	57	60	0	350	63	60	63	0
Paver	1	85	50%	725	62	59	62	0	550	64	61	64	0	500	65	62	65	0	1000	59	56	59	0	550	64	61	64	0	450	66	63	66	0
Pavement Scarafier	1	85	20%	770	61	54	57	0	635	63	56	59	0	575	64	57	60	0	1100	58	51	54	0	630	63	56	59	0	600	63	56	59	0
Architectural Coating					***59***	***55***				***64***	***60***				***67***	***63***				***56***	***52***				***64***	***60***				***68***	***64***		
Compressor (air)	1	80	40%	590	59	55	58	0	310	64	60	63	0	220	67	63	66	0	750	56	52	55	0	325	64	60	63	0	200	68	64	67	0
Maximum Combined Noise Levels					**68.0**	**63.0**				**71.9**	**67.3**				**74.1**	**69.6**				**65.4**	**60.4**				**71.7**	**66.9**				**74.9**	**70.4**		
Maximum Combined Noise Levels with County Compliance[a]					**60.0**	**55.0**				**63.9**	**59.3**				**66.1**	**61.6**				**57.4**	**52.4**				**63.7**	**58.9**				**66.9**	**62.4**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

Project: CMWC Phase 13 Workforce Housing

Construction Noise Impact on Sensitive Receptors

				R1- Nearest Residence to the North of E 117th					R2- Multi-Family Residence at 1746 E 117th St					R3- Willbrook Green Apartments at 1629 E 118th Pl					R4- Nearest Residence to the West of Compton					R5- Nearest Residence to the North of 117th Pl					R6- Nearest Residence to the North of E 118th				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demolition					***70***	***66***				***65***	***61***				***68***	***64***				***64***	***60***				***78***	***74***				***65***	***61***		
Tractor/Loader/Backhoe	1	80	40%	310	64	60	63	0	490	60	56	59	0	350	63	59	62	0	600	58	54	57	0	80	76	72	75	0	500	60	56	59	0
Tractor/Loader/Backhoe	1	80	40%	360	63	59	62	0	580	59	55	58	0	410	62	58	61	0	675	57	53	56	0	190	68	64	67	0	575	59	55	58	0
Dozer	1	85	40%	400	67	63	66	0	675	62	58	61	0	490	65	61	64	0	775	61	57	60	0	275	70	66	69	0	675	62	58	61	0
Grading					***72***	***68***				***68***	***64***				***71***	***67***				***66***	***62***				***82***	***78***				***68***	***64***		
Grader	1	85	40%	310	69	65	68	0	490	65	61	64	0	350	68	64	67	0	600	63	59	62	0	80	81	77	80	0	500	65	61	64	0
Dozer	1	85	40%	360	68	64	67	0	580	64	60	63	0	410	67	63	66	0	675	62	58	61	0	190	73	69	72	0	575	64	60	63	0
Tractor/Loader/Backhoe	1	80	40%	400	62	58	61	0	675	57	53	56	0	490	60	56	59	0	775	56	52	55	0	275	65	61	64	0	675	57	53	56	0
Building Construction					***65***	***61***				***60***	***56***				***63***	***59***				***59***	***55***				***68***	***64***				***60***	***56***		
Crane	1	85	16%	310	69	61	64	0	490	65	57	60	0	350	68	60	63	0	600	63	55	58	0	80	81	73	76	0	500	65	57	60	0
Front End Loader	2	80	40%	360	66	62	65	0	580	62	58	61	0	410	65	61	64	0	675	60	56	59	0	190	71	67	70	0	575	62	58	61	0
Tractor/Loader/Backhoe	2	80	40%	400	65	61	64	0	675	60	56	59	0	490	63	59	62	0	775	59	55	58	0	275	68	64	67	0	675	60	56	59	0
Paving					***74***	***69***				***69***	***65***				***72***	***68***				***68***	***64***				***82***	***77***				***69***	***65***		
Roller	1	85	20%	310	69	62	65	0	490	65	58	61	0	350	68	61	64	0	600	63	56	59	0	80	81	74	77	0	500	65	58	61	0
Tractor/Loader/Backhoe	1	80	40%	330	64	60	63	0	540	59	55	58	0	375	62	59	62	0	625	58	54	57	0	125	72	68	71	0	525	60	56	59	0
Drum Mixer	2	80	50%	360	66	63	66	0	580	62	59	62	0	410	65	62	65	0	675	60	57	60	0	190	71	68	71	0	572	62	59	62	0
Drum Mixer	2	80	50%	360	66	63	66	0	580	62	59	62	0	410	65	62	65	0	725	60	57	60	0	190	71	68	71	0	600	61	58	61	0
Paver	1	85	50%	400	67	64	67	0	675	62	59	62	0	490	65	62	65	0	775	61	58	61	0	275	70	67	70	0	675	62	59	62	0
Architectural Coating					***64***	***60***				***60***	***56***				***63***	***59***				***58***	***54***				***76***	***72***				***60***	***56***		
Compressor (air)	1	80	40%	310	64	60	63	0	490	60	56	59	0	350	63	59	62	0	600	58	54	57	0	80	76	72	75	0	500	60	56	59	0
Maximum Combined Noise Levels					**73.7**	**69.5**				**69.5**	**65.3**				**72.4**	**68.2**				**67.9**	**63.8**				**82.5**	**77.7**				**69.4**	**65.2**		
Maximum Combined Noise Levels with County Compliance[a]					**65.7**	**61.5**				**61.5**	**57.3**				**64.4**	**60.2**				**59.9**	**55.8**				**74.5**	**69.7**				**61.4**	**57.2**		
Threshold[b]					**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**				**80**	**80**		
Significant Impact?					**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**				**No**	**No**		

[a] The maximum combined noise level includes compliance with the Los Angeles County Code requirement of suitable exhaust and air-intake silencers (i.e., mufflers) that reduces noise levels by approximately 8 dBA.

[b] The noise level threshold is based on Los Angeles County Code Section 12.08.440 B.1.1 for multi-family receptors.

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

ESA

CMWC

Vibration Level Calculations

				Receptor		
				N =	1.5	
Construction Equipment	**Project Equipment**	**Equipment Velocity Decibels @ 25 Feet* (VdB)**	**Equipment Peak Particle Velocity @ 25 Feet* (inches/second)**	**Distance to Structure (Feet)**	**Estimated Velocity Decibels @ Distance** (VdB)**	**Estimated Peak Particle Velocity @ Distance*** (inches/second)**
Pile Driver (Impact - Upper Range)	No	112	1.518	35	0.0	0.000
Pile Driver (Impact - Typical)	No	104	0.644	35	0.0	0.000
Pile Driver (Sonic - Upper Range)	No	105	0.734	35	0.0	0.000
Pile Driver (Sonic - Typical)	No	93	0.170	35	0.0	0.000
Clam Shover Drop (Slurry Wall)	No	94	0.202	35	0.0	0.000
Hydromill (Slurry Wall - In Soil)	No	66	0.008	35	0.0	0.000
Hydromill (Slurry Wall - In Rock)	No	75	0.017	35	0.0	0.000
Vibratory Roller	Yes	94	0.210	35	91.1	0.127
Hoe Ram	No	87	0.089	35	0.0	0.000
Large Bulldozer	Yes	87	0.089	35	84.1	0.054
Caisson Drilling	No	87	0.089	35	0.0	0.000
Loaded Trucks	Yes	86	0.076	35	83.1	0.046
Jackhammer	Yes	79	0.035	35	76.1	0.021
Small Bulldozer	Yes	58	0.003	35	53.6	0.002

Source:
Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual* , 2018.

Notes:
* Values taken from Table 7-4.
** Based on the formula VdB(D) = VdB(25ft) - 30 x LOG10 (D/25), where D is equal to the distance (see page 185).
*** Based on the formula PPV(D) = PPV(25 ft) x $(25/D)^N$, where D is equal to the distance (see page 185).
N = soil type classification factor (typically ranges from 1 to 1.5)

Exhibit C

Traffic Noise Modeling

CMWC Traffic Noise
Existing plus Project

Roadway Segment	Existing Land Uses Located Along Roadway Segment	Ambient Noise Level	Traffic Noise Levels (dBA CNEL)				
			Existing	Existing with Project	Existing with Project Accounting for Ambient	Increase over Existing from Ambient	Significant Impact?
117th Place e/o Compton Avenue	Residential/Commercial	54.1	54.1	53.3	56.7	2.6	No
117th Place w/o Compton Avenue	Residential/Commercial	54.1	54.1	47.9	55.0	0.9	No
117th Street between Compton Avenue and Holmes Avenue	Residential/Commercial	60.7	60.7	58.4	62.7	2.0	No
117th Street w/o Compton Avenue	Residential/Commercial	60.7	60.7	49.9	61.0	0.3	No
118th Street between Holmes Avenue and Wilmington Avenue	Residential/Commercial		65.7	65.9	65.9	0.1	No
118th Street e/o Compton Avenue	Residential/Commercial	61.6	61.6	51.9	62.0	0.4	No
118th Street e/o Wilmington Avenue	Residential/Commercial	58.7	61.2	61.2	63.1	0.0	No
118th Street w/o Compton Avenue	Residential/Commercial	61.6	61.6	55.4	62.5	0.9	No
118th Street w/o Holmes Avenue	Residential/Commercial	58.7	58.7	52.3	59.6	0.9	No
119th Street/120th Street e/o Wilmington Avenue	Residential/Commercial		63.4	63.4	63.4	0.1	No
120th Street between Compton Avenue and Healthy Way	Residential/Commercial		63.3	63.9	63.9	0.5	No
120th Street between Healthy Way and Wilmington Avenue	Residential/Commercial		66.6	67.0	67.0	0.4	No
120th Street w/o Compton Avenue	Residential/Commercial		65.7	65.8	65.8	0.1	No
I-105 EB Ramps w/o Wilmington Avenue	Residential/Commercial		72.2	72.3	72.3	0.1	No
Imperial Highway between Compton Avenue and Wilmington Ave	Residential		72.8	72.9	72.9	0.1	No
Imperial Highway between Wilmington Avenue and I-105 WB Ra	Residential/Commercial		60.4	60.4	60.4	0.0	No
Imperial Highway e/o I-105 WB Ramps	Residential/Commercial		73.8	73.9	73.9	0.1	No
Imperial Highway w/o Compton Avenue	Residential/Commercial		72.9	73.0	73.0	0.1	No
Compton Avenue between 117th Place and 118th Street	Residential/Commercial		65.2	65.5	65.5	0.3	No
Compton Avenue between 117th Street and 117th Place	Residential/Commercial		65.2	65.6	65.6	0.4	No
Compton Avenue between 118th Street and 120th Street	Residential/Commercial		65.3	65.5	65.5	0.2	No
Compton Avenue between Imperial Highway and 117th Street	Residential/Commercial		62.7	63.2	63.2	0.5	No
Compton Avenue n/o Imperial Highway	Residential/Commercial		65.3	65.3	65.3	0.1	No
Compton Avenue s/o 120th Street	Residential/Commercial		64.2	64.3	64.3	0.1	No
Healthy Way s/o 120th Street	Residential/Commercial		58.8	58.8	58.8	0.0	No
I-105 WB Ramps n/o Imperial Highway	Residential/Commercial		61.9	61.9	61.9	0.0	No
Wilmington Avenue between Imperial Highway and I-105 EB Ra	Residential/Commercial		68.3	68.5	68.5	0.2	No
Wilmington Avenue n/o Imperial Highway	Residential/Commercial		66.4	66.5	66.5	0.1	No
Wilmington Avenue s/o 119th Street/120th Street	Residential/Commercial		66.5	66.5	66.5	0.0	No

CMWC Traffic Noise
Cumulative plus Project

Roadway Segment	Existing Land Uses Located Along Roadway Segment	Ambient Noise Level	Traffic Noise Levels (dBA CNEL)				
			Future Year (2033)	Future Year (2033) + Project	Future Year with Project Accounting for Ambient	Increase over Existing from Ambient	Significant Impact?
117th Place e/o Compton Avenue	Residential/Commercial	54.1	48.4	53.5	57.4	3.3	No
117th Place w/o Compton Avenue	Residential/Commercial	54.1	47.9	47.9	55.8	1.7	No
117th Street between Compton Avenue and Holmes Avenue	Residential/Commercial	60.7	53.5	58.7	63.3	2.6	No
117th Street w/o Compton Avenue	Residential/Commercial	60.7	50.1	50.1	61.4	0.7	No
118th Street between Holmes Avenue and Wilmington Avenue	Residential/Commercial		66.0	66.1	--	0.2	No
118th Street e/o Compton Avenue	Residential/Commercial	61.6	58.3	51.2	63.5	1.9	No
118th Street e/o Wilmington Avenue	Residential/Commercial	58.7	61.3	61.3	65.4	0.0	No
118th Street w/o Compton Avenue	Residential/Commercial	61.6	56.1	55.5	63.5	1.9	No
118th Street w/o Holmes Avenue	Residential/Commercial	58.7	58.8	54.4	62.5	-4.3	No
119th Street/120th Street e/o Wilmington Avenue	Residential/Commercial		63.6	63.6	--	0.1	No
120th Street between Compton Avenue and Healthy Way	Residential/Commercial		63.5	63.9	--	0.5	No
120th Street between Healthy Way and Wilmington Avenue	Residential/Commercial		66.8	67.1	--	0.3	No
120th Street w/o Compton Avenue	Residential/Commercial		65.9	66.0	--	0.1	No
I-105 EB Ramps w/o Wilmington Avenue	Residential/Commercial		72.3	72.5	--	0.1	No
Imperial Highway between Compton Avenue and Wilmington Aven	Residential		72.9	73.1	--	0.1	No
Imperial Highway between Wilmington Avenue and I-105 WB Ram	Residential/Commercial		60.5	60.5	--	0.0	No
Imperial Highway e/o I-105 WB Ramps	Residential/Commercial		74.0	74.0	--	0.1	No
Imperial Highway w/o Compton Avenue	Residential/Commercial		73.0	73.2	--	0.1	No
Compton Avenue between 117th Place and 118th Street	Residential/Commercial		65.4	65.6	--	0.3	No
Compton Avenue between 117th Street and 117th Place	Residential/Commercial		65.3	65.7	--	0.4	No
Compton Avenue between 118th Street and 120th Street	Residential/Commercial		65.5	65.6	--	0.2	No
Compton Avenue between Imperial Highway and 117th Street	Residential/Commercial		62.9	63.3	--	0.5	No
Compton Avenue n/o Imperial Highway	Residential/Commercial		65.4	65.5	--	0.1	No
Compton Avenue s/o 120th Street	Residential/Commercial		64.4	64.5	--	0.1	No
Healthy Way s/o 120th Street	Residential/Commercial		58.9	58.9	--	0.0	No
I-105 WB Ramps n/o Imperial Highway	Residential/Commercial		62.0	62.0	--	0.0	No
Wilmington Avenue between Imperial Highway and I-105 EB Ram	Residential/Commercial		68.5	68.6	--	0.2	No
Wilmington Avenue n/o Imperial Highway	Residential/Commercial		66.5	66.6	--	0.1	No
Wilmington Avenue s/o 119th Street/120th Street	Residential/Commercial		66.6	66.7	--	0.0	No

TRAFFIC NOISE ANALYSIS TOOL

Project Name: CMWC
Analysis Scenario: Cumulative + Project
Source of Traffic Volumes:

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Compton Avenue between Imperial Highway and 117th Street	Hard	30	25	25	25	791	16	8	63.0	63.3
Compton Avenue between 117th Street and 117th Place	Hard	30	25	25	25	1360	28	14	65.4	65.7
Compton Avenue between 117th Place and 118th Street	Hard	30	25	25	25	1337	28	14	65.3	65.6
Compton Avenue between 118th Street and 120th Street	Hard	30	25	25	25	1336	28	14	65.3	65.6
Wilmington Avenue between Imperial Highway and I-105 EB Ramps	Hard	30	25	25	25	2675	55	28	68.3	68.6
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	285	6	3	58.6	58.9
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	285	6	3	58.6	58.9
Compton Avenue n/o Imperial Highway	Hard	30	25	25	25	1288	27	13	65.2	65.5
Wilmington Avenue n/o Imperial Highway	Hard	30	25	25	25	1683	35	17	66.3	66.6
I-105 WB Ramps n/o Imperial Highway	Hard	30	40	40	35	201	4	2	61.7	62.0
Compton Avenue s/o 120th Street	Hard	30	25	25	25	1024	21	11	64.2	64.5
Healthy Way s/o 120th Street	Hard	30	25	25	25	286	6	3	58.6	58.9
Wilmington Avenue s/o 119th Street/120th Street	Hard	30	25	25	25	1707	35	18	66.4	66.7
Imperial Highway between Compton Avenue and Wilmington Avenue	Hard	30	40	40	35	2540	52	26	72.8	73.1
Imperial Highway between Wilmington Avenue and I-105 WB Ramps	Hard	30	40	40	35	140	3	1	60.2	60.5
117th Street between Compton Avenue and Holmes Avenue	Hard	30	25	25	25	274	6	3	58.4	58.7
118th Street between Holmes Avenue and Wilmington Avenue	Hard	30	25	25	25	1500	31	15	65.8	66.1
120th Street between Compton Avenue and Healthy Way	Hard	30	25	25	25	904	19	9	63.6	63.9
120th Street between Healthy Way and Wilmington Avenue	Hard	30	25	25	25	1874	39	19	66.8	67.1
119th Street/120th Street e/o Wilmington Avenue	Hard	30	25	25	25	847	17	9	63.3	63.6
118th Street e/o Wilmington Avenue	Hard	30	25	25	25	497	10	5	61.0	61.3
Imperial Highway e/o I-105 WB Ramps	Hard	30	40	40	35	3185	66	33	73.7	74.0
117th Place e/o Compton Avenue	Hard	30	25	25	25	82	2	1	53.2	53.5
118th Street e/o Compton Avenue	Hard	30	25	25	25	49	1	1	50.9	51.2
118th Street w/o Holmes Avenue	Hard	30	25	25	25	102	2	1	54.1	54.4
Imperial Highway w/o Compton Avenue	Hard	30	40	40	35	2604	54	27	72.9	73.2
117th Street w/o Compton Avenue	Hard	30	25	25	25	38	1	0	49.8	50.1
117th Place w/o Compton Avenue	Hard	30	25	25	25	22	0	0	47.6	47.9
118th Street w/o Compton Avenue	Hard	30	25	25	25	131	3	1	55.2	55.5
120th Street w/o Compton Avenue	Hard	30	25	25	25	1462	30	15	65.7	66.0
I-105 EB Ramps w/o Wilmington Avenue	Hard	30	40	40	35	2215	46	23	72.2	72.5

TRAFFIC NOISE ANALYSIS TOOL

Project Name: CMWC
Analysis Scenario: Cumulative Base
Source of Traffic Volumes:

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Compton Avenue between Imperial Highway and 117th Street	Hard	30	25	25	25	712	15	7	62.6	62.9
Compton Avenue between 117th Street and 117th Place	Hard	30	25	25	25	1251	26	13	65.0	65.3
Compton Avenue between 117th Place and 118th Street	Hard	30	25	25	25	1261	26	13	65.1	65.4
Compton Avenue between 118th Street and 120th Street	Hard	30	25	25	25	1282	26	13	65.2	65.5
Wilmington Avenue between Imperial Highway and I-105 EB Ramps	Hard	30	25	25	25	2576	53	27	68.2	68.5
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	266	5	3	58.3	58.6
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	266	5	3	58.3	58.6
Compton Avenue n/o Imperial Highway	Hard	30	25	25	25	1269	26	13	65.1	65.4
Wilmington Avenue n/o Imperial Highway	Hard	30	25	25	25	1636	34	17	66.2	66.5
I-105 WB Ramps n/o Imperial Highway	Hard	30	40	40	35	201	4	2	61.7	62.0
Compton Avenue s/o 120th Street	Hard	30	25	25	25	1006	21	10	64.1	64.4
Healthy Way s/o 120th Street	Hard	30	25	25	25	286	6	3	58.6	58.9
Wilmington Avenue s/o 119th Street/120th Street	Hard	30	25	25	25	1689	35	17	66.3	66.6
Imperial Highway between Compton Avenue and Wilmington Avenue	Hard	30	40	40	35	2463	51	25	72.6	72.9
Imperial Highway between Wilmington Avenue and I-105 WB Ramps	Hard	30	40	40	35	140	3	1	60.2	60.5
117th Street between Compton Avenue and Holmes Avenue	Hard	30	25	25	25	81	2	1	53.2	53.5
118th Street between Holmes Avenue and Wilmington Avenue	Hard	30	25	25	25	1441	30	15	65.7	66.0
120th Street between Compton Avenue and Healthy Way	Hard	30	25	25	25	815	17	8	63.2	63.5
120th Street between Healthy Way and Wilmington Avenue	Hard	30	25	25	25	1731	36	18	66.5	66.8
119th Street/120th Street e/o Wilmington Avenue	Hard	30	25	25	25	831	17	9	63.3	63.6
118th Street e/o Wilmington Avenue	Hard	30	25	25	25	497	10	5	61.0	61.3
Imperial Highway e/o I-105 WB Ramps	Hard	30	40	40	35	3147	65	32	73.7	74.0
117th Place e/o Compton Avenue	Hard	30	25	25	25	25	1	0	48.1	48.4
118th Street e/o Compton Avenue	Hard	30	25	25	25	247	5	3	58.0	58.3
118th Street w/o Holmes Avenue	Hard	30	25	25	25	276	6	3	58.5	58.8
Imperial Highway w/o Compton Avenue	Hard	30	40	40	35	2538	52	26	72.7	73.0
117th Street w/o Compton Avenue	Hard	30	25	25	25	38	1	0	49.8	50.1
117th Place w/o Compton Avenue	Hard	30	25	25	25	22	0	0	47.6	47.9
118th Street w/o Compton Avenue	Hard	30	25	25	25	150	3	2	55.8	56.1
120th Street w/o Compton Avenue	Hard	30	25	25	25	1427	29	15	65.6	65.9
I-105 EB Ramps w/o Wilmington Avenue	Hard	30	40	40	35	2159	45	22	72.0	72.3

TRAFFIC NOISE ANALYSIS TOOL

Project Name: CMWC
Analysis Scenario: Existing+Project
Source of Traffic Volumes:

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Compton Avenue between Imperial Highway and 117th Street	Hard	30	25	25	25	769	16	8	62.9	63.2
Compton Avenue between 117th Street and 117th Place	Hard	30	25	25	25	1323	27	14	65.3	65.6
Compton Avenue between 117th Place and 118th Street	Hard	30	25	25	25	1300	27	13	65.2	65.5
Compton Avenue between 118th Street and 120th Street	Hard	30	25	25	25	1293	27	13	65.2	65.5
Wilmington Avenue between Imperial Highway and I-105 EB Ramps	Hard	30	25	25	25	2579	53	27	68.2	68.5
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	261	5	3	58.2	58.5
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	30	25	25	25	261	5	3	58.2	58.5
Compton Avenue n/o Imperial Highway	Hard	30	25	25	25	1246	26	13	65.0	65.3
Wilmington Avenue n/o Imperial Highway	Hard	30	25	25	25	1621	33	17	66.2	66.5
I-105 WB Ramps n/o Imperial Highway	Hard	30	40	40	35	194	4	2	61.6	61.9
Compton Avenue s/o 120th Street	Hard	30	25	25	25	981	20	10	64.0	64.3
Healthy Way s/o 120th Street	Hard	30	25	25	25	277	6	3	58.5	58.8
Wilmington Avenue s/o 119th Street/120th Street	Hard	30	25	25	25	1649	34	17	66.2	66.5
Imperial Highway between Compton Avenue and Wilmington Avenue	Hard	30	40	40	35	2463	51	25	72.6	72.9
Imperial Highway between Wilmington Avenue and I-105 WB Ramps	Hard	30	40	40	35	137	3	1	60.1	60.4
117th Street between Compton Avenue and Holmes Avenue	Hard	30	25	25	25	255	5	3	58.1	58.4
118th Street between Holmes Avenue and Wilmington Avenue	Hard	30	25	25	25	1410	29	15	65.6	65.9
120th Street between Compton Avenue and Healthy Way	Hard	30	25	25	25	889	18	9	63.6	63.9
120th Street between Healthy Way and Wilmington Avenue	Hard	30	25	25	25	1837	38	19	66.7	67.0
119th Street/120th Street e/o Wilmington Avenue	Hard	30	25	25	25	809	17	8	63.1	63.4
118th Street e/o Wilmington Avenue	Hard	30	25	25	25	481	10	5	60.9	61.2
Imperial Highway e/o I-105 WB Ramps	Hard	30	40	40	35	3083	64	32	73.6	73.9
117th Place e/o Compton Avenue	Hard	30	25	25	25	78	2	1	53.0	53.3
118th Street e/o Compton Avenue	Hard	30	25	25	25	57	1	1	51.6	51.9
118th Street w/o Holmes Avenue	Hard	30	25	25	25	62	1	1	52.0	52.3
Imperial Highway w/o Compton Avenue	Hard	30	40	40	35	2515	52	26	72.7	73.0
117th Street w/o Compton Avenue	Hard	30	25	25	25	36	1	0	49.6	49.9
117th Place w/o Compton Avenue	Hard	30	25	25	25	22	0	0	47.6	47.9
118th Street w/o Compton Avenue	Hard	30	25	25	25	126	3	1	55.1	55.4
120th Street w/o Compton Avenue	Hard	30	25	25	25	1398	29	14	65.5	65.8
I-105 EB Ramps w/o Wilmington Avenue	Hard	30	40	40	35	2135	44	22	72.0	72.3

TRAFFIC NOISE ANALYSIS TOOL

Project Name: CMWC
Analysis Scenario: Existing
Source of Traffic Volumes:

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
117th Place e/o Compton Avenue	Hard	30	25	25	25	20	0	0	47.2	47.5
117th Place w/o Compton Avenue	Hard	30	25	25	25	22	0	0	47.6	47.9
117th Street between Compton Avenue and Holmes Avenue	Hard	30	25	25	25	57	1	1	51.6	51.9
117th Street w/o Compton Avenue	Hard	30	25	25	25	36	1	0	49.6	49.9
118th Street between Holmes Avenue and Wilmington Avenue	Hard	30	25	25	25	1373	28	14	65.4	65.7
118th Street e/o Compton Avenue	Hard	30	25	25	25	225	5	2	57.6	57.9
118th Street e/o Wilmington Avenue	Hard	30	25	25	25	481	10	5	60.9	61.2
118th Street w/o Compton Avenue	Hard	30	25	25	25	144	3	1	55.6	55.9
118th Street w/o Holmes Avenue	Hard	30	25	25	25	256	5	3	58.2	58.5
119th Street/120th Street e/o Wilmington Avenue	Hard	30	25	25	25	793	16	8	63.1	63.4
120th Street between Compton Avenue and Healthy Way	Hard	30	25	25	25	788	16	8	63.0	63.3
120th Street between Healthy Way and Wilmington Avenue	Hard	30	25	25	25	1672	34	17	66.3	66.6
120th Street w/o Compton Avenue	Hard	30	25	25	25	1363	28	14	65.4	65.7
I-105 EB Ramps w/o Wilmington Avenue	Hard	30	40	40	35	2079	43	21	71.9	72.2
Imperial Highway between Compton Avenue and Wilmington Avenue	Hard	30	40	40	35	2381	49	25	72.5	72.8
Imperial Highway between Wilmington Avenue and I-105 WB Ramps	Hard	30	40	40	35	137	3	1	60.1	60.4
Imperial Highway e/o I-105 WB Ramps	Hard	30	40	40	35	3044	63	31	73.5	73.8
Imperial Highway w/o Compton Avenue	Hard	30	40	40	35	2448	50	25	72.6	72.9
Compton Avenue between 117th Place and 118th Street	Hard	30	25	25	25	1213	25	13	64.9	65.2
Compton Avenue between 117th Street and 117th Place	Hard	30	25	25	25	1204	25	12	64.9	65.2
Compton Avenue between 118th Street and 120th Street	Hard	30	25	25	25	1232	25	13	65.0	65.3
Compton Avenue between Imperial Highway and 117th Street	Hard	30	25	25	25	687	14	7	62.4	62.7
Compton Avenue n/o Imperial Highway	Hard	30	25	25	25	1227	25	13	65.0	65.3
Compton Avenue s/o 120th Street	Hard	30	25	25	25	962	20	10	63.9	64.2
Healthy Way s/o 120th Street	Hard	30	25	25	25	277	6	3	58.5	58.8
I-105 WB Ramps n/o Imperial Highway	Hard	30	40	40	35	194	4	2	61.6	61.9
Wilmington Avenue between Imperial Highway and I-105 EB Ramps	Hard	30	25	25	25	2481	51	26	68.0	68.3
Wilmington Avenue n/o Imperial Highway	Hard	30	25	25	25	1578	33	16	66.1	66.4
Wilmington Avenue s/o 119th Street/120th Street	Hard	30	25	25	25	1631	34	17	66.2	66.5

Exhibit D
Operational
Noise Modeling

Soccer Field Speaker Noise R1

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	375	57.5	5.0	52.5
Speaker 2	5	95	375	57.5	5.0	52.5
Total	**5**	**95**	**-**	**60.5**	**5.0**	**55.5**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

Soccer Field Speaker Noise R2

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	180	63.9	5.0	58.9
Speaker 2	5	95	180	63.9	5.0	58.9
Total	**5**	**95**	**-**	**66.9**	**5.0**	**61.9**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

Soccer Field Speaker Noise R3

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	525	54.6	5.0	49.6
Speaker 2	5	95	525	54.6	5.0	49.6
Total	**5**	**95**	**-**	**57.6**	**5.0**	**52.6**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

Soccer Field Speaker Noise R4

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	950	49.4	5.0	44.4
Speaker 2	5	95	950	49.4	5.0	44.4
Total	**5**	**95**	**-**	**52.4**	**5.0**	**47.4**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

Soccer Field Speaker Noise R5

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	425	56.4	5.0	51.4
Speaker 2	5	95	425	56.4	5.0	51.4
Total	**5**	**95**	**-**	**59.4**	**5.0**	**54.4**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

Soccer Field Speaker Noise R6

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	95	350	58.1	5.0	53.1
Speaker 2	5	95	350	58.1	5.0	53.1
Total	**5**	**95**	**-**	**61.1**	**5.0**	**56.1**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R1

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	655	37.7	5.0	32.7
Speaker 2	5	80	975	34.2	5.0	29.2
Total	**5**	**80**	**-**	**39.3**	**5.0**	**34.3**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R2

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	315	44.0	5.0	39.0
Speaker 2	5	80	800	35.9	5.0	30.9
Total	**5**	**80**	**-**	**44.6**	**5.0**	**39.6**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R3

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	50	60.0	5.0	55.0
Speaker 2	5	80	800	35.9	5.0	30.9
Total	**5**	**80**	**-**	**60.0**	**5.0**	**55.0**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R4

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	550	39.2	5.0	34.2
Speaker 2	5	80	1,300	31.7	5.0	26.7
Total	**5**	**80**	**-**	**39.9**	**5.0**	**34.9**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R5

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	325	43.7	5.0	38.7
Speaker 2	5	80	850	35.4	5.0	30.4
Total	**5**	**80**	**-**	**44.3**	**5.0**	**39.3**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

118th Promenade Speaker Noise R6

Speaker Noise Levels

Point Source	Reference Distance (ft)	Reference Noise Level (dBA)[1]	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Attenuation (dBA)[2]	Noise Level at Receptor with Attenuation (dBA)
Speaker 1	5	80	50	60.0	5.0	55.0
Speaker 2	5	80	800	35.9	5.0	30.9
Total	**5**	**80**	**-**	**60.0**	**5.0**	**55.0**

[1] World Health Organization recommends a limit of 100 dB for outdoor concerts and festivals. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5187664/

[2] Attenuation accounts for speaker directivity facing away from receptors and intervening structures between the speakers and receptors

CMWC Noise

Open Space Noise Calculation - Athletics Field (Measured to the Center)

Receptor R1

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1,000						
Females (Adult)	500	250	3	63	87.0	475	43.0
Males (Adult)	500	250	3	65	89.0	475	45.0
Total	**1000**	**500**	-	-	**91.1**	-	**47.1**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R2

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1000						
Females (Adult)	500	250	3	63	87.0	350	45.6
Males (Adult)	500	250	3	65	89.0	350	47.6
Total	**1000**	**500**	-	-	**91.1**	-	**49.8**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R3

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1000						
Females (Adult)	500	250	3	63	87.0	725	39.3
Males (Adult)	500	250	3	65	89.0	725	41.3
Total	**1000**	**500**	-	-	**91.1**	-	**43.4**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R4

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1000						
Females (Adult)	500	250	3	63	87.0	1050	36.1
Males (Adult)	500	250	3	65	89.0	1050	38.1
Total	**1000**	**500**	-	-	**91.1**	-	**40.2**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R5

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1000						
Females (Adult)	500	250	3	63	87.0	550	41.7
Males (Adult)	500	250	3	65	89.0	550	43.7
Total	**1000**	**500**	-	-	**91.1**	-	**45.8**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R6

Category	# of Individuals (estimated capacity)	# of Individuals Speaking (half of estimated capacity)	Reference Distance (ft)[1]	Reference Noise Level (dBA)[1]	Combined Noise Level (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)
Total Capacity	1000						
Females (Adult)	500	250	3	63	87.0	415	44.2
Males (Adult)	500	250	3	65	89.0	415	46.2
Total	**1000**	**500**	-	-	**91.1**	-	**48.3**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

CMWC Noise

Open Space Noise Calculation - 118th Promenade (Measured from the Center)

Receptor R1							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	750	36.0
Males (Adult)	250	125	3	65	86.0	750	38.0
Total	**500**	**250**	-	-	**88.1**	-	**40.1**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R2							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	475	40.0
Males (Adult)	250	125	3	65	86.0	475	42.0
Total	**500**	**250**	-	-	**88.1**	-	**44.1**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R3							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	450	40.4
Males (Adult)	250	125	3	65	86.0	450	42.4
Total	**500**	**250**	-	-	**88.1**	-	**44.6**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R4							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	975	33.7
Males (Adult)	250	125	3	65	86.0	975	35.7
Total	**500**	**250**	-	-	**88.1**	-	**37.9**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R5							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	575	38.3
Males (Adult)	250	125	3	65	86.0	575	40.3
Total	**500**	**250**	-	-	**88.1**	-	**42.4**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Receptor R6							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	500						
Females (Adult)	250	125	3	63	84.0	450	40.4
Males (Adult)	250	125	3	65	86.0	450	42.4
Total	**500**	**250**	-	-	**88.1**	-	**44.6**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

CMWC

Composite Noise Levels

Athletics Field Noise

Receptor Location	Calculated Project-Related Noise Levels (dBA)		Project Composite Noise Levels, (dBA)	Ambient Noise Levels,[a] (dBA)	Ambient Plus Project Composite Noise Levels, (dBA)	Increase in Noise Levels Due to Project, (dBA)	Significance Threshold	Significant Impact?
	Crowd Noise	Speaker						
R1	47.1	55.5	56.1	60.7	62.0	1.3	65.7	No
R2	49.8	61.9	62.2	60.4	64.4	4.0	65.4	No
R3	43.4	52.6	53.1	61.6	62.2	0.6	66.6	No
R4	40.2	47.4	48.2	69.7	69.7	0.0	74.7	No
R5	45.8	54.4	55.0	54.1	57.6	3.5	59.1	No
R6	48.3	56.1	56.8	58.7	60.9	2.2	63.7	No

NOTES:

SOURCE: ESA, 2023.

118th Promenade

Receptor Location	Calculated Project-Related Noise Levels (dBA)		Project Composite Noise Levels, (dBA)	Ambient Noise Levels,[a] (dBA)	Ambient Plus Project Composite Noise	Increase in Noise Levels Due to Project,	Significance Threshold	Significant Impact?
	Crowd Noise	Speaker						
R1	40.1	34.3	41.1	60.7	60.7	0.0	65.7	No
R2	44.1	39.6	45.4	60.4	60.5	0.1	65.4	No
R3	44.6	55.0	55.4	61.6	62.5	0.9	66.6	No
R4	37.9	34.9	39.7	69.7	69.7	0.0	74.7	No
R5	42.4	39.3	44.1	54.1	54.5	0.4	59.1	No
R6	44.6	55.0	55.4	58.7	60.4	1.7	63.7	No

NOTES:

SOURCE: ESA, 2023.

Project: CMWC

Parking Structure Noise

Receptor Location	R1	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	25	ft
	6	dBA
	58.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R1	**58**	dBA

Receptor Location	R2	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	525	ft
	-20	dBA
	31.6	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R2	**32**	dBA

Receptor Location	R3	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	700	ft
	-23	dBA
	29.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R3	**29.1**	dBA

Receptor Location	R4	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	775	ft
	-24	dBA
	28.3	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**28.3**	dBA

Receptor Location	R5	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	350	ft
	-17	dBA
	35.2	dBA
Noise Reduction by NOISE-PDF-2		dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**35.2**	dBA

Receptor Location	R6	
Parking Structure Noise Level	52.1	dBA
Reference Distance	50	ft
Distance to Receptor	850	ft
	-25	dBA
	27.4	dBA
Noise Reduction by NOISE-PDF-2		dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**27.4**	dBA

AM or PM Peak Hour Trips	368	trips
Leq	52	dBA

eq(h) = SELref + 10log(NA/1000) – 35.6

Where: Leq(h) = hourly Leq noise level at 50 feet

SELref (92 dBA SEL) = reference noise level for stationary noise source represented in sound exposure level (SEL) at 50 feet

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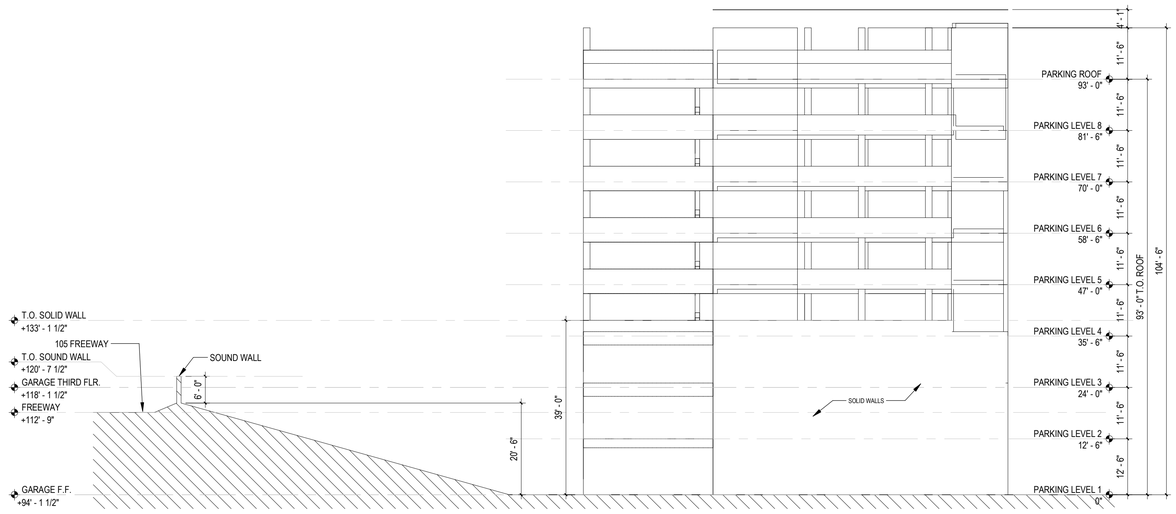

2 U8 - WEST
SCALE: 1/16" = 1'-0"



1 U8 - SOUTH
SCALE: 1/16" = 1'-0"

CMWC, LLC

21001.00

1667 EAST 18TH STREET
LOS ANGELES, CALIFORNIA 90059

Frederick Fisher and **Partners**
12248 Santa Monica Blvd.
Los Angeles, CA 90025

ISSUED FOR	DATE
4 SITE PLAN - RESUBMITTAL V	07/01/2025

CONCEPTUAL ELEVATIONS

SCALE: 1/16" = 1'-0"

U8-A5.2

Appendix I
Transportation Assessment Study

TRANSPORTATION ASSESSMENT STUDY FOR THE CHARLES R. DREW UNIVERSITY WELLNESS AND EDUCATION PROJECT

Prepared for:

CHARLES R. DREW UNIVERSITY

DECEMBER 2023
(UPDATED OCTOBER 2024)

Submitted by:

RAJU Associates, Inc.

TRANSPORTATION ASSESSMENT STUDY
FOR THE
CHARLES R. DREW UNIVERSITY WELLNESS AND EDUCATION PROJECT

DECEMBER 2023
(UPDATED OCTOBER 2024)

Prepared for:

CHARLES R. DREW UNIVERSITY

Prepared by:

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Ref: RA 745

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EXECUTIVE SUMMARY

A detailed transportation assessment study has been performed by Raju Associates, Inc. to assess the transportation impacts of the proposed Charles R. Drew University Wellness and Education Project (the Project) located in the County of Los Angeles' Willowbrook Transit Oriented District (TOD) Specific Plan area. The Project address is 1667 E. 118th Street, Los Angeles, California 90059 (Assessor's Parcel Nos. 6149-012-901, 6149-014-900, 6149-014-903, and 6149-014-904), and also includes the Los Angeles County Development Authority (LACDA)-owned site (Assessor's Parcel No. 6149-014-906) (LACDA Property) located on the north side of 117th Street.

The Project consists of university related uses including 250 student housing dwelling units, 55 faculty/staff dwelling units, 200 affordable dwelling units, 54 senior affordable dwelling units, 116,000 square feet of office use, 11,500 square feet of facilities/services use, 10,270 square feet of university-oriented retail use, 10,000 square feet of university-oriented community space use (5,000 square feet of university-oriented community space would be located on ground floor of office building and 5,000 square feet located on the ground floor of the student housing building), and 43,100 square feet of athletic use and a soccer field. The Project would provide a total of 854 vehicle parking spaces. The existing site is vacant. The Project is anticipated to be completed in the Year 2036.

The Project is consistent with the County of Los Angeles' adopted programs, plans, ordinances and policies that establish the transportation planning framework for all travel modes including the Circulation Element of the County's General Plan and the County of Los Angeles' Willowbrook Transit Oriented District (TOD) Specific Plan.

This transportation assessment study was prepared consistent with the County of Los Angeles' *Transportation Impact Analysis Guidelines, 2020* (TIAG) for both CEQA and Local Transportation Analysis as applicable.

The CEQA evaluation consists of analysis of transportation impacts for the following relevant County adopted thresholds for development projects:

- Consistency with Plans, Programs, Ordinances or Policies
- Vehicle Miles Traveled (VMT) Assessment,
- Geometric Design Hazards, and
- Emergency Access

The Local Transportation Analysis includes intersection operational and queueing analysis, local residential cut-through evaluation, additional site access evaluation and construction analysis.

The following executive summary highlighting the key findings of this study are presented below.

PROJECT DESCRIPTION

- The Project consists of university related uses including 250 student housing dwelling units, 55 faculty/staff dwelling units, 200 affordable dwelling units, 54 senior affordable dwelling units, 116,000 square feet of office use (including 5,000 square feet of university-oriented community space), 11,500 square feet of facilities/services use, 10,270 square feet of university-oriented retail use and 48,100 square feet of athletic use and university-oriented community space (including one soccer field). The Project would provide a total of 854 vehicle parking spaces. The existing site is vacant. The Project is anticipated to be completed in the Year 2036.

- The Project would provide a total of 366 bicycle spaces (294 long-term spaces and 72 short-term spaces) located across the Project Site.

- The Project also proposes the vacation and conversion of a portion of 118th Street along the majority of the southern boundary of the Project Site (approximately 700 linear feet) from public right-of-way that permits vehicular travel to a private right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel.

CEQA ANALYSIS

- Consistency with Plans, Programs, Ordinances or Policies – This threshold test is to assess whether a project would conflict with a plan, program, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities. Generally, the County's transportation policies or standards that protect the environment are outlined to support multi-modal transportation options resulting in a reduction of VMTs.

    - The Project's design features support multimodal transportation options and would be consistent with policies, plans, ordinances, and programs. The Project design includes features that minimize impacts to the public right-of-way and enhance the user experience by integrating multimodal transportation options.

    - The Project would not conflict with adopted policies, plans, ordinances, and programs, or preclude County action to fulfill or implement projects associated with multimodal networks. Therefore, the Project would have a less than significant impact on the County's transportation-related plans, programs, ordinances, and policies.

- Vehicle Miles Traveled (VMT) Assessment - For land use projects, the intent of this threshold is to assess whether a land use project or plan causes substantial vehicle miles traveled.

- The Project is located within ½ mile of an existing major transit stop along an existing high quality transit corridor (in a transit priority area) and the answer is no to all of the screening questions. Therefore, further analysis is not required, and the project is presumed to cause a less than significant transportation impact. Thus, the Project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

- Since the Project does not cause a significant impact using the efficiency-based impact threshold (Household VMT per capita or Work VMT per employee), the Project would not cause a cumulative significant impact relative to VMT Metric.

- Geometric Design Hazards - Impacts regarding the potential hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts.

    - Based on a review and consideration of the proposed site plan and Project description, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project does not cause a significant impact relative to Geometric Design Hazards.

    - A review of the Project Site plan and of adjacent related projects was conducted. It was observed that the combined effects of these related projects and the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project would not cause a cumulative significant impact relative to Geometric Design Hazards.

- Emergency Access - This CEQA Threshold addresses whether the project results in inadequate emergency access.

    - The emergency access to the various Project components would occur along the same facilities that provide access to the site. There would be no constraints or restrictions affecting emergency access.

    - The Project Site is north of the Los Angeles County Fire Department (LACFD) Station 41 and the access to the Martin Luther King Jr. (MLK) Community Hospital emergency department located along 120th Street. Project construction activities would not affect emergency access to these facilities. The Project would develop a construction traffic management plan in coordination with the MLK Community Hospital, LACFD and Los Angeles County Public Works (LACPW) to ensure that emergency vehicle access along 118th and 120th Streets are maintained and that access to LCFD Station 41 and the MLK Medical Campus is not constrained or restricted. Therefore, construction and operation of the proposed Project would not result in inadequate emergency access. The Project does not cause a significant impact relative to the CEQA Threshold – Emergency Access.

Summarizing, the Project would not cause significant impacts relative to the County established CEQA thresholds including the following: Consistency with Plans, Programs, Ordinances or Policies, Vehicle Miles Traveled (VMT) Assessment, and Geometric Design Hazards. Therefore, no Project-specific mitigation measures would be required.

LOCAL TRANSPORTATION ANALYSIS

- The study area includes a distance of approximately one-quarter mile radius from the Project Site. The study area includes key facilities generally bounded by Imperial Highway on the north, 119th Street/120th Street on the south, Compton Avenue on the west, and Wilmington Avenue on the east.

- For the local transportation analysis, 12 locations were chosen as study intersections. Nine of 12 study intersections are controlled by traffic signals, and include the following locations:

    - Compton Avenue / Imperial Highway
    - Compton Avenue / 117th Street (unsignalized)
    - Compton Avenue / 117th Place (unsignalized)
    - Compton Avenue / 118th Street
    - Compton Avenue / 120th Street
    - Healthy Way / 120th Street
    - Holmes Avenue / 118th Street (unsignalized)
    - Wilmington Avenue / Imperial Highway Ramps
    - Wilmington Avenue / I-105 Freeway Eastbound Ramps
    - Wilmington Avenue / 118th Street
    - Wilmington Avenue / 119th Street – 120th Street
    - I-105 Freeway Westbound Ramps – Croesus Avenue / Imperial Highway

- The Project would generate a net total of 3,602 daily trips, of which a net total of approximately 314 trips would occur during the morning peak hour and 368 trips during the evening peak hour.

- Intersection Operational Analysis - This section includes an evaluation of the Project's access and circulation constraints relative to the provision of access to and from the Project Site based on the screening criteria, evaluation criteria and methodology established in the County's TIAG. Highway Capacity Manual, 6th Edition (HCM) methodology was utilized to conduct operational and vehicle queuing analyses at the study intersections.

    - **Existing (2023) Conditions:** All 12 study intersections are currently operating at LOS D or better during both the morning and evening peak hours.

    - **Future Cumulative (2036) without Project Conditions:** All 12 study intersections are projected to continue to operate at LOS D or better during the morning and evening peak hours under Future Cumulative (2036) without Project conditions.

    - **Future Cumulative (2036) with Project Conditions:** All 12 study intersections are projected to continue to operate at LOS D or better during both the morning and evening peak hours under Future Cumulative (2036) with Project conditions. Therefore, no corrective actions would be required for the Project.

- Intersection Queue Analysis – Based on the queueing evaluations, the Project contributes to unacceptable queuing at three (3) study intersections. Therefore, corrective actions would be required for the Project at these three study intersections. The corrective actions include the following:

- Compton Avenue at Imperial Highway: The corrective action consists of extending the northbound left-turn pocket. This would accommodate the potential future projected queue length. No on-street parking is allowed along this stretch of Compton Avenue, and therefore, no on-street parking would be removed for this corrective action.

- Compton Avenue at 120th Street: The corrective action consists of extending the eastbound left-turn pocket. This would accommodate the potential future projected queue length. No on-street parking is allowed along this stretch of 120th Street, and therefore, no on-street parking would be removed for this corrective action.

- Wilmington Avenue at I-105 Freeway Eastbound Ramps: The corrective action consists of providing a second (dual) northbound left-turn lane or extending the left-turn pocket length. However, the receiving lanes on the ramp include one carpool lane and one mixed-flow lane. Therefore, the additional northbound left-turn lane would serve only carpool vehicles and would not provide the required additional storage length for all users. Further, there could be safety issues due to non-carpool vehicles needing to merge on the ramp and not having the ability to do so.

  Another consideration at this location is the geometric constraint that exists relative to the dual southbound left-turn pocket storage length at the Wilmington Avenue/118th Street-Plaza driveway intersection. For these reasons, implementation of this corrective action is infeasible. This improvement cannot be implemented.

- Local Residential Street Cut-Through Analysis – Based on the County's TIAG screening criteria, no further analysis will be required to assess whether the project would negatively affect residential streets.

- Additional Site Access Analysis – An Event Management Plan will be prepared for large events with the attendance of 500 or more people.

- Project Construction Analysis – The project construction assessment consistent with the County's TIAG was conducted and the following summarizes the findings:

  - The Project construction assessment identified no potential transit or bicycle constraints during construction. However, temporary/intermittent loss of a travel lane along the Project's frontages, and restriction of non-metered on-street parking along the Project's frontages are anticipated during construction. Sidewalks along the Project's frontages are also anticipated to be intermittently closed. In order to address these construction effects, the following corrective actions may include to the satisfaction of public works:

    - Implementation of a Construction Traffic Management Plan (CTMP), including traffic control plans, in consultation with LACPW,
    - Coordination with emergency services.
    - Coordination of access and other considerations with adjacent property owners and other stakeholders.

I. INTRODUCTION

This report documents the assumptions, methodologies and findings of a transportation assessment study conducted by Raju Associates, Inc., to evaluate the potential transportation impacts of the proposed Charles R. Drew University Wellness and Education Project (the Project) located in the County of Los Angeles' Willowbrook Transit Oriented District (TOD) Specific Plan area. The Project address is 1667 East 118th Street, Los Angeles, California 90059 (Assessor's Parcel Nos. 6149-012-901, 6149-014-900, 6149-014-903, and 6149-014-904), and also includes the Los Angeles County Development Authority (LACDA)-owned site (Assessor's Parcel No. 6149-014-906) (LACDA Property) located on the north side of 117th Street.

PROJECT DESCRIPTION

The Project is located on the north side of 118th Street east of Compton Avenue and is an expansion to the north of the existing Charles R. Drew University of Medicine and Science Campus. The Project Site is generally bounded by I-105 Freeway on the north, 118th Street on the south, Compton Avenue on the west and an existing Charles R. Drew University parking structure on the east. Figure 1 illustrates the location of the Project in relation to the surrounding street system.

The Project Site plan is shown in Figure 2. The Project proposes the following university-related uses:

- Student Housing → 250 dwelling units
- Faculty/Staff Housing → 55 dwelling units
- Affordable Housing → 200 dwelling units
- Senior Affordable Housing→ 54 dwelling units
- Office Use → 116,000 gross square feet (also includes 5,000 square feet of university-oriented community space)
- Facilities/Services → 11,500 gross square feet
- University-oriented Commercial/Retail → 10,270 gross square feet
- Athletics and University-oriented Community Space (48,100 gross square feet):
    - Gym Building → 20,600 gross square feet
    - Pool Building → 22,500 gross square feet
    - University-oriented Community Space → 5,000 gross square feet
    - Soccer Field → 1 field – 100 yards by 60 yards

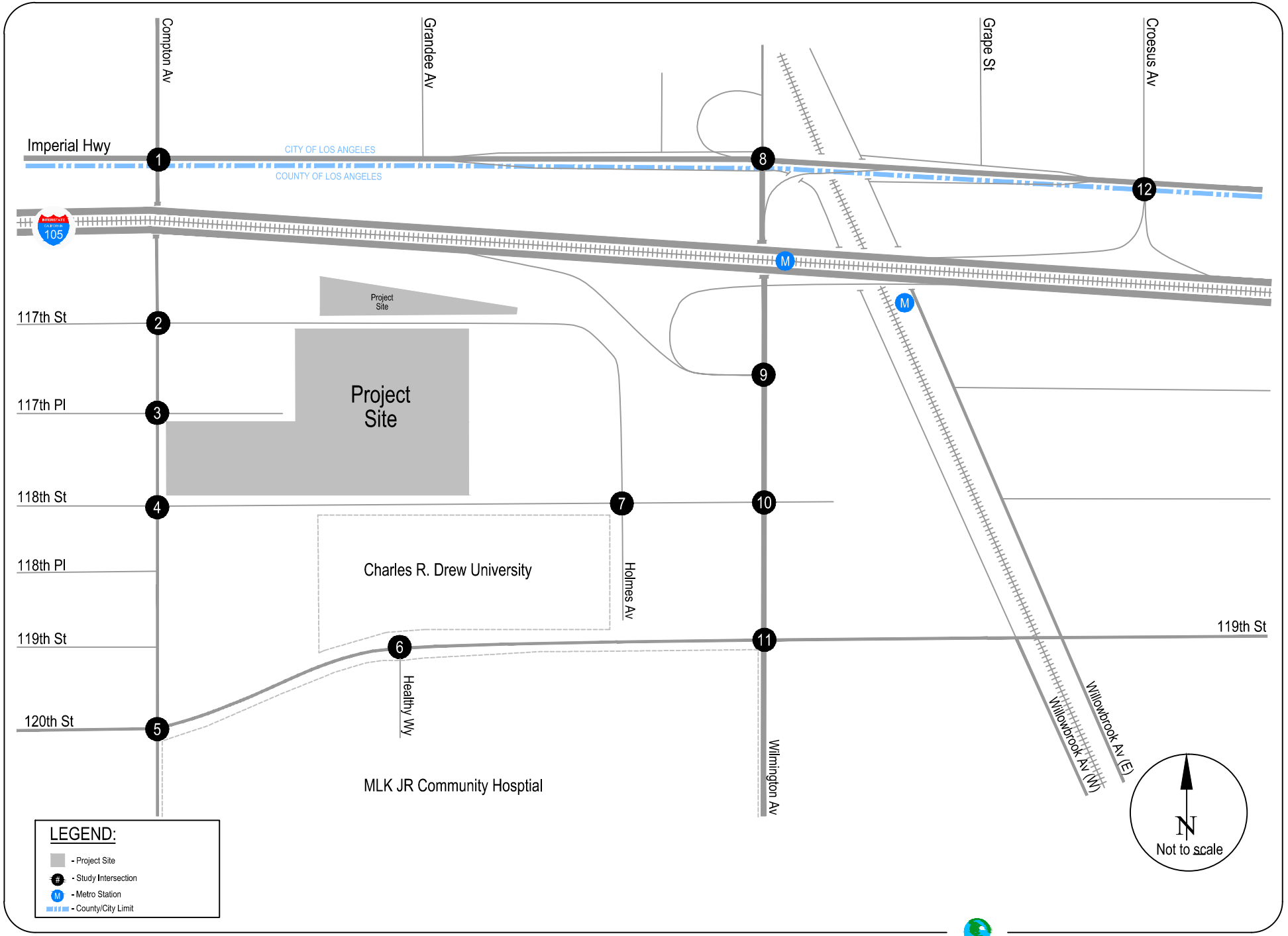
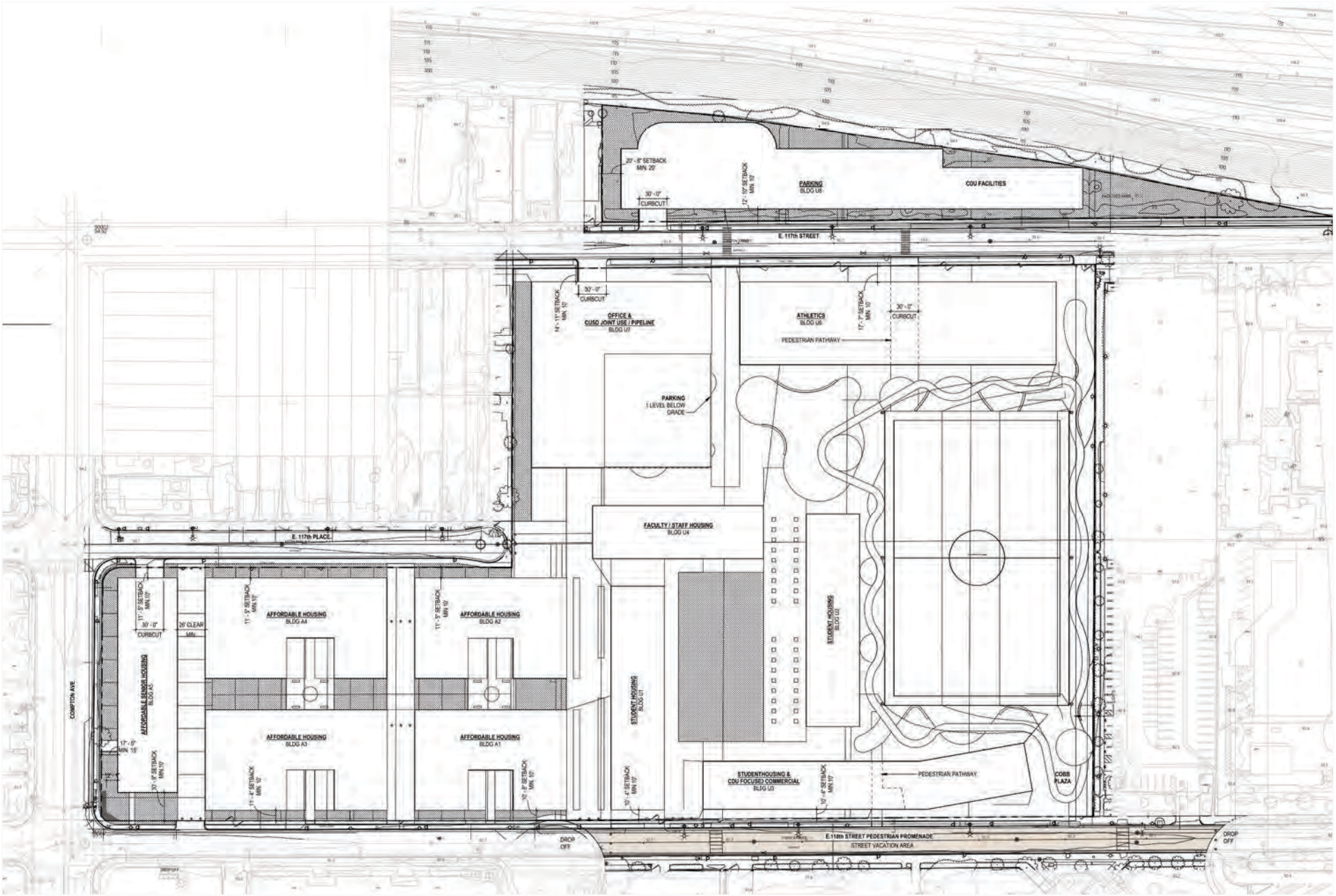


FIGURE 1
LOCATION OF PROJECT SITE AND STUDY INTERSECTIONS

RAJU Associates, Inc.



Source: Frederick Fisher and Partners

N
Not to Scale

FIGURE 2
PROJECT SITE PLAN

RAJU Associates, Inc.

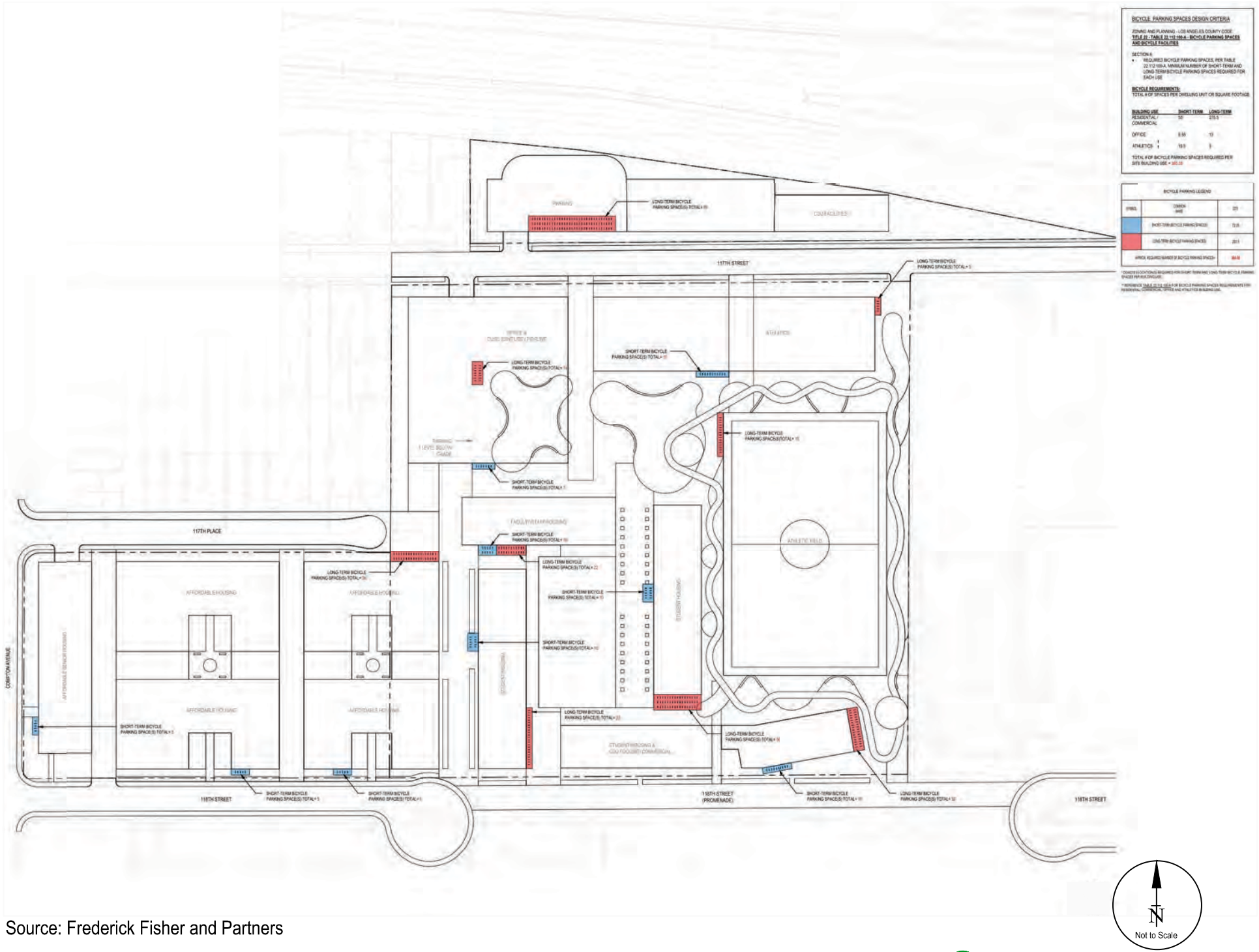
The Project also proposes to vacate and convert a portion of 118th Street along the majority of the southern boundary of the Project Site (approximately 700 linear feet) from public right-of-way that permits vehicular travel to a private right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel. A drop-off/turnaround is proposed accessible from Compton Avenue along the western portion of 118th Street to allow for drop-off, pedestrian loading or deliveries. A second drop-off/turnaround is proposed adjacent to the existing Charles R. Drew University surface parking lot on the south side of 118th Street and a parking structure on the north side of 118th Street. The 118th Street pedestrian promenade would include pedestrian walkways. Provisions for the continued use of the vacated street for emergency vehicles will be available, as part of the Project.

The Project would provide a total of 854 vehicle parking spaces. As proposed, the Project would provide a total of 721 parking spaces to serve university housing uses, office uses and other commercial/retail/institutional and athletic facilities. Of these 721 spaces, 637 spaces would be provided in a proposed parking structure located on the north side of 117th Street and 84 spaces would be provided in a subterranean parking structure located beneath the proposed office building located on the south side of 117th Street. Additionally, the affordable and senior housing components located in the westerly portion of the Project Site will provide a total of 133 spaces on-site to serve their needs. It worth noting, per CDU, there will be parking restrictions for freshmen (first year students) living on campus. Freshmen living on campus will not be permitted to have a vehicle.

The Project would provide a total of 366 bicycle spaces (294 long-term spaces and 72 short-term spaces) spread across the Project Site. Figure 3 illustrates the proposed locations of the bicycle parking spaces.

The existing site is vacant. The Project is anticipated to be completed in the Year 2036.

The Project has been designed to be consistent with the County of Los Angeles' adopted programs, plans, ordinances and policies that establish the transportation planning framework for all travel modes including the Circulation Element of the County's General Plan, the County of Los Angeles' Willowbrook Transit Oriented District (TOD) Specific Plan.



Source: Frederick Fisher and Partners

FIGURE 3
PROJECT SITE PLAN - LOCATION OF BICYCLE PARKING

RAJU Associates, Inc.

PROJECT VEHICULAR ACCESS AND CIRCULATION

Access to the Project's parking areas would be provided along 117th Street, 117th Place and 118th Street. Two Project driveways would be located along 117th Street: one on the north side of the street providing access to the Projects' parking structure and another on the south side of the street providing access to the proposed office building's subterranean parking structure. Two additional driveways would be located on the south side of 117th Place providing access to the affordable housing parking spaces. Additionally, a driveway would be located along the north side of 118th Street also providing access to the affordable housing parking spaces.

Fire access facilities for emergency access are proposed within the Project Site extending from 117th Street to the pedestrian promenade along 118th Street, as well as to 117th Place.

PROJECT PEDESTRIAN ACCESS AND CIRCULATION

Compton Avenue, 117th Street, 117th Place and 118th Street offer pedestrian access to the Project Site. Sidewalks are available on both sides of these streets adjacent to and in the vicinity of the Project Site. The width of these sidewalks adjacent to the Project Site is summarized below:

- The sidewalk along Compton Avenue (east side of street) is approximately 8 feet wide including parkway.
- The sidewalk along 117th Street is approximately 10 feet wide on the south side of the street and is approximately 10 feet including the parkway on the northside of the street.
- The sidewalk along 117th Place is approximately 10 feet wide on both sides of the street.
- The sidewalk along 118th Street is approximately 10 feet wide on the south side of the street and is approximately 10 feet wide including the parkway on the north side of the street.

Pedestrian crosswalks adjacent to the Project Site are available at nearby intersections of Compton Avenue/118th Street (all four approaches), Compton Avenue/117th Place (south leg), Compton Avenue/117th Street (south and east legs) and Holmes Avenue/118th Street. There are also two mid-block pedestrian crosswalks along 118th Street between Compton Avenue and Holmes Avenue, currently.

Additionally, the Project proposes the vacation and conversion of a portion of 118th Street along the southern boundary of the Project Site (approximately 700 linear feet) from public right-of-way that permits vehicular travel to a private right-of-way that eliminates vehicular travel in favor of a pedestrian promenade allowing primarily pedestrian and bicycle travel. Emergency vehicles would be able to continue to use 118th Street including the proposed pedestrian promenade. A drop-off/turnaround is proposed accessible from Compton Avenue along the western portion of 118th Street to allow for drop-off, pedestrian loading or deliveries. A second drop-off/turnaround is proposed adjacent to the existing Charles R. Drew University surface parking lot on the south side of 118th Street and a parking structure on the north side of 118th Street. The 118th Street pedestrian promenade would include landscape and seating areas adjacent to the proposed buildings on the north and south sides as well as pedestrian walkways.

STUDY SCOPE

The scope of work for this study was developed consistent with the County of Los Angeles' TIAG. The base assumptions, technical methodologies and geographic coverage of the study were all identified as part of the study approach. The study is directed at both the CEQA analysis and local transportation analysis of the proposed Project. A brief description of the required analyses is provided below.

CEQA Analysis

- Consistency with Plans, Programs, Ordinances or Policies - The threshold test is to assess whether a project would conflict with a plan, program, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities. A project would not specifically be shown to result in an impact by virtue of not implementing a plan, program, ordinance or policy as a whole, since many of these are implemented by the County over time, and over a broader area, but the intention of this threshold is to ensure that proposed development projects and plans do not preclude the County from implementing these plans, programs, ordinances or programs.

- Vehicle Miles Traveled (VMT) Assessment - For land use projects, the intent of this threshold test is to assess whether a proposed project or plan adequately reduces total vehicle miles traveled.

- Geometric Design Hazards - Impacts regarding the potential hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts. Impacts can be related to vehicle/vehicle, vehicle/bicycle, or vehicle/pedestrian conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site. These conflicts

may be created by the driveway configuration or through the placement of project driveway(s) in areas of inadequate visibility, adjacent to bicycle or pedestrian facilities, or too close to busy or congested intersections. Evaluation of access impacts require details relative to project land use, size, design, location of access points, etc. These impacts are typically evaluated for permanent conditions after project completion but can also be evaluated for temporary conditions during project construction.

Local Transportation Analysis

- Operational and Queueing Analysis - Project access and circulation constraints associated with the project site would need to be analyzed as part of the project's transportation assessment. The analyses should address the needs of vehicular, transit, pedestrian and bicycle systems access and circulation associated with the Project.

  For this operational evaluation, 12 locations (9 signalized and 3 unsignalized) were chosen as study intersections. These intersections are listed below including their traffic control type and jurisdiction:

  1. Compton Avenue / Imperial Highway: signalized (Los Angeles County/City of Los Angeles)
  2. Compton Avenue / 117th Street: unsignalized (Los Angeles County)
  3. Compton Avenue / 117th Place: unsignalized (Los Angeles County)
  4. Compton Avenue / 118th Street: signalized (Los Angeles County)
  5. Compton Avenue / 120th Street: signalized (Los Angeles County)
  6. Healthy Way / 120th Street: signalized (Los Angeles County)
  7. Holmes Avenue / 118th Street: unsignalized (Los Angeles County)
  8. Wilmington Avenue / Imperial Highway Ramps: signalized (Los Angeles County/City of Los Angeles)
  9. Wilmington Avenue / I-105 Freeway Eastbound Ramps: signalized (Los Angeles County/Caltrans)
  10. Wilmington Avenue / 118th Street: signalized (Los Angeles County)
  11. Wilmington Avenue / 119th Street – 120th Street: signalized (Los Angeles County)
  12. I-105 Freeway Westbound Ramps – Croesus Avenue / Imperial Highway: signalized (Los Angeles County/City of Los Angeles/Caltrans)

- Local Residential Street Cut-Through Analysis – This section addresses cut-through traffic that may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments.

- Additional Site Access Analysis – This section addresses project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

- Construction Analysis - This analysis addresses the effects of project construction activities as well as those associated with in-street construction of infrastructure projects.

A detailed Transportation Assessment Scoping Document (SD) was prepared working closely with the County of Los Angeles' Department of Public Works. A copy of the County-approved/signed SD is attached in Appendix A of this report. Since the approval of the SD, the buildout year (horizon year) for the Project has been revised to Year 2036. The updated buildout year is shown in an additional attachment to the SD.

This transportation assessment report provides documentation in accordance with the County of Los Angeles' *Transportation Impact Analysis Guidelines* (TIAG).

ORGANIZATION OF REPORT

An executive summary presenting key details of the study is provided at the beginning of this report. The rest of the report is divided into five chapters. Chapter I presents an introduction including the Project description and provides details of the various elements of the study. Chapter II describes the existing conditions including the circulation system, traffic volumes, traffic conditions, pedestrian network, bicycle network and transit system within the study area. Chapter III presents the CEQA Analysis of Transportation Impacts due to the proposed Project. Chapter IV describes the development of the Project's traffic projections used for Local Transportation Analysis. The results of the Local Transportation Analyses are also provided in Chapter IV. A summary of the analysis and study conclusions is included in Chapter V. Appendices to this report include details of the technical analyses.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes an inventory of the street system, pedestrian network, bicycle network and transit system; and vehicular traffic volumes and operating conditions. A detailed description of these elements is presented in this chapter.

STUDY AREA

The Project is located at 1667 East 118th Street, Los Angeles, California 90059, as shown in Figure 1. It is located on the north side of 118th Street, east of Compton Avenue and is an expansion to the north of the existing Charles R. Drew University of Medicine and Science Campus. The Project Site is generally bounded by I-105 Freeway on the north, 118th Street on the south, Compton Avenue on the west and an existing Charles R. Drew University parking structure on the east.

The study area generally includes a distance of approximately one-quarter mile (1,320 feet) radius from the Project Site. The study area includes key facilities generally bounded by 114th Street on the north, 120th Street on the south, Success Avenue on the west, and Wilmington Avenue on the east.

EXISTING STREET SYSTEM

The existing street system within the study area consists of a regional roadway system including major and secondary highways and a street system including collectors and local streets. A description of the regional and local access and circulation offered by the various roadways follows.

Primary regional access to the Project Site is provided by the Glenn M. Anderson (I-105) Freeway, the Harbor (I-110) Freeway and Long Beach (I-710) Freeway. The I-105 Freeway, which runs in the east-west direction, adjacent to and north of the Project Site, connects with the I-110 and I-710 Freeways, which run north-south. The I-110 Freeway is located approximately two miles west of the Project Site, and the I-710 Freeway is located approximately four miles east of the Project

Site. The major and secondary highways that provide access to the study area include Compton Avenue, Imperial Highway, Wilmington Avenue, 119th Street, 120th Street and Willowbrook Avenue. The streets providing local access and circulation possibilities to the Project Site include 117th Street, 117th Place, 118th Street and Holmes Avenue.

Figure 4 illustrates the street system within the study area including street classifications as described in the Los Angeles County's Master Plan of Highways (2016) and City of Los Angeles' Mobility Plan 2035. Brief descriptions of the roadway facilities serving the study area including number of lanes, speed limits, parking availability, and functional classes are presented in the following section. The existing lane configurations of the analyzed intersections are included in Appendix B.

- Compton Avenue – Compton Avenue is classified as a secondary highway in the County of Los Angeles, and it is classified as a collector street in the City of Los Angeles, north of Imperial Highway. It runs in a north-south direction and defines the western boundary of the Project Site. The posted speed limit is 35 miles per hour in the vicinity of the study area. Within the study area, the roadway generally offers four travel lanes, two lanes in each direction with a double yellow median. On-street parking is generally allowed along this roadway.

- Imperial Highway – Imperial Highway is classified as a major highway in the County of Los Angeles, and as a Modified Boulevard II in the City of Los Angeles. It runs in an east-west direction north of the Project Site. The posted speed limit is 40 miles per hour. The roadway generally offers five to six travel lanes, two to three lanes in the westbound direction and two to three lanes in the eastbound direction, with a central left-turn median. A bike lane is provided in the westbound direction beginning at Grandee Avenue. On-street parking is allowed along many stretches of this roadway within the study area. This roadway provides on- and off-ramps to the westbound I-105 Freeway located approximately one-half mile east of the Project Site.

  Wilmington Avenue – Wilmington Avenue is classified as a major highway in the County of Los Angeles, and it is classified as a collector street in the City of Los Angeles, north of Imperial Highway. This roadway runs in a north-south direction and generally offers five to six travel lanes with no on-street parking between Imperial Highway Ramps and 120th Street, three lanes in the northbound direction and two to three lanes in the southbound direction. Two travel lanes are provided north of Imperial Highway, while four travel lanes are provided south of 120th Street. Within the study area, the posted speed limit is 35 miles per hour. This roadway provides on- and off-ramps to the eastbound I-105 Freeway located approximately 1,000 feet east of the Project Site.

- 119th Street – 119th Street begins east of Wilmington Avenue and is a continuation of 120th Street. 119th Street is a secondary highway that traverses in an east-west direction. This roadway offers two travel lanes, one lane per direction with a center left-turn median and bicycle sharrow in each direction. On-street parking is allowed along this roadway. The posted speed limit along this facility is 25 miles per hour.

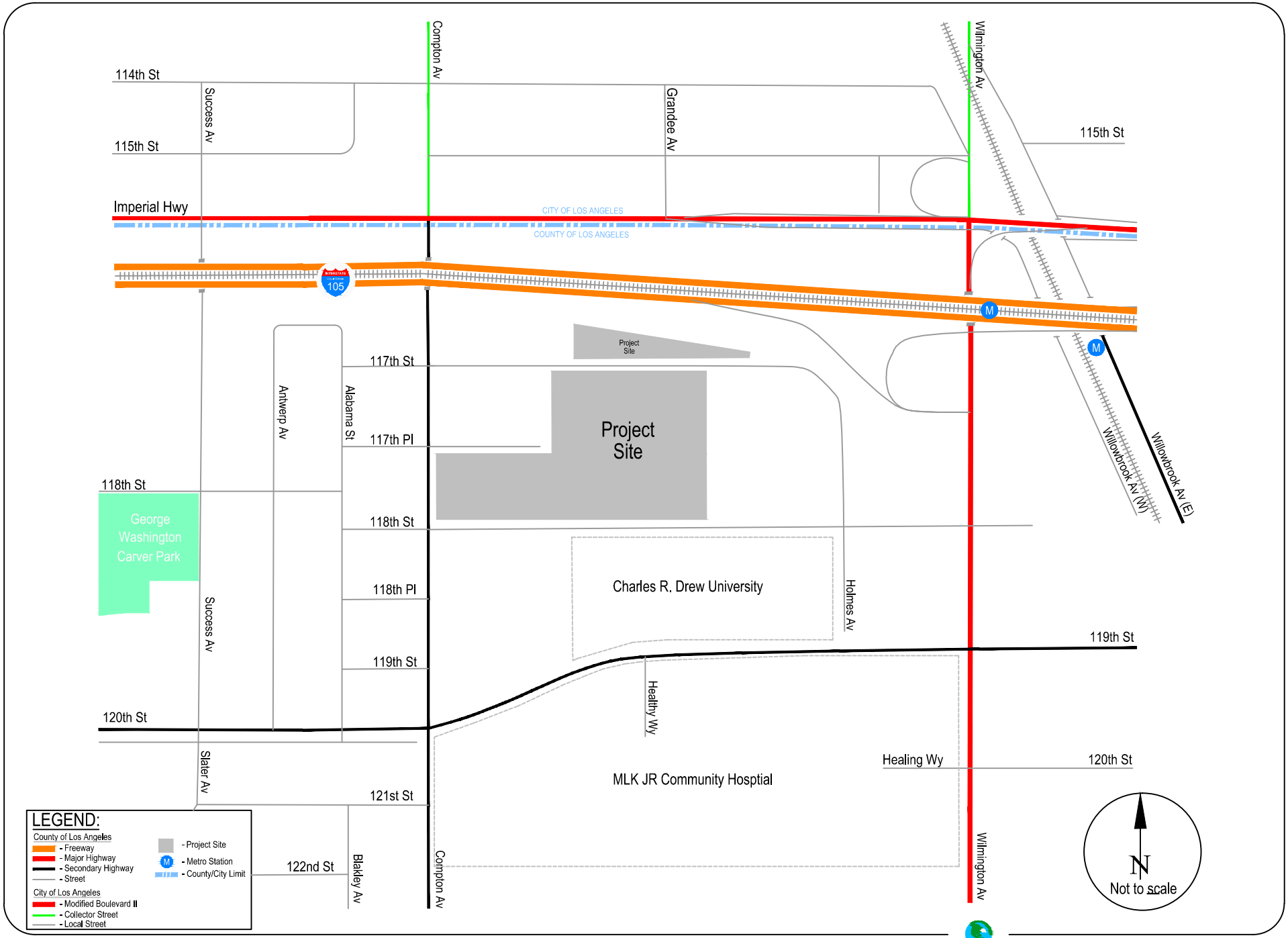


FIGURE 4
EXISTING STREET SYSTEM

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- 120th Street – 120th Street is a secondary highway that traverses in an east-west direction. This roadway provides two travel lanes with a central left-turn median, one lane in each direction with on-street parking and bicycle lane. Four travel lanes, two lanes in each direction with stretches of on-street parking is provided along this roadway, west of Compton Avenue. The posted speed limit is 35 miles per hour. At Wilmington Avenue, this roadway becomes 119th Street.

- Willowbrook Avenue (West) – Willowbrook Avenue (West) is a street that runs diagonally in a north-south direction between Wilmington Avenue and 119th Street. This section of the roadway operates one-way in the southbound direction and provides one to two travel lanes with a protected two-way bicycle path on the east side of the roadway. The posted speed limit is 15 miles per hour.

  South of 119th Street, Willowbrook Avenue (West) is classified as a secondary highway and generally offers two travel lanes, one lane in each direction, with a single dashed yellow median. On-street parking is allowed along the west side of this roadway. The posted speed limit is 35 miles per hour.

- Willowbrook Avenue (East) – Willowbrook Avenue (East) is classified as a secondary highway that traverses in a north-west to south-east direction. The posted speed limit is 35 miles per hour. The roadway generally offers two travel lanes, one lane in each direction, with a single dashed yellow median. On-street parking is allowed along the east side of this roadway within the study area.

- Success Avenue – Success Avenue is a street that runs in a north-south direction. The speed limit is 25 miles per hour. The roadway generally offers two travel lanes, one lane per direction with a single dashed median and bike sharrow in each direction. On-street parking is allowed along this roadway within the study area.

- Antwerp Avenue – Antwerp Avenue is a street that runs in a north-south direction. The prima facie speed limit is 25 miles per hour. The roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway.

- Alabama Avenue – Alabama Avenue is a street that runs in a north-south direction. The speed limit is 25 miles per hour. The roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway within the study area.

- 117th Street – 117th Street is a street that runs in an east-west direction. Within the study area, the Project Site is located on both the north and south sides of 117th Street. The roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway within the study area. The speed limit is 25 miles per hour.

- 117th Place – 117th Place is a street that runs in an east-west direction from Alabama Street to a dead end, east of Compton Avenue. This roadway defines a portion of the Project's northern frontage. The prima facie speed limit is 25 miles per hour. The roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway.

- 118th Street – 118th Street is an east-west street that defines the southern frontage of the Project Site. Within the study area, the roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway within the study area. Speed humps are provided between Compton Avenue and Holmes Avenue. The posted speed limit is 25 miles per hour.

- Holmes Avenue – Holmes Avenue is a street that runs in a north-south direction. The speed limit is 25 miles per hour. The roadway generally offers two travel lanes, one lane in each direction. On-street parking is allowed along this roadway within the study area.

PEDESTRIAN CIRCULATION SYSTEM

The existing pedestrian circulation system includes crosswalks, intersection traffic control, and sidewalks available to serve pedestrians. Figure 5 illustrates the pedestrian facilities within the study area defined by a distance of approximately one-quarter mile (1,320 feet) radius of the Project Site.

Compton Avenue, 117th Street, 117th Place and 118th Street offer pedestrian access to the Project Site. Sidewalks are available on both sides of these streets adjacent to and in the vicinity of the Project Site. The width of these sidewalks adjacent to the Project Site is summarized below:

- The sidewalk along Compton Avenue (east side of street) is approximately 8 feet wide including parkway.

- The sidewalk along 117th Street is approximately 10 feet wide on the south side of the street and is approximately 10 feet including the parkway on the northside of the street.

- The sidewalk along 117th Place is approximately 10 feet wide on both sides of the street.

- The sidewalk along 118th Street is approximately 10 feet wide on the south side of the street and is approximately 10 feet wide including the parkway on the north side of the street. 118th Street is identified as a key pedestrian route in the Willowbrook TOD Specific Plan.

Pedestrian crosswalks adjacent to the Project Site are available at nearby intersections of Compton Avenue/118th Street (all four approaches), Compton Avenue/117th Place (south leg), Compton Avenue/117th Street (south and east legs) and Holmes Avenue/118th Street. Additionally, there are two mid-block pedestrian crosswalks along 118th Street between Compton Avenue and Holmes Avenue, as shown in Figure 5.

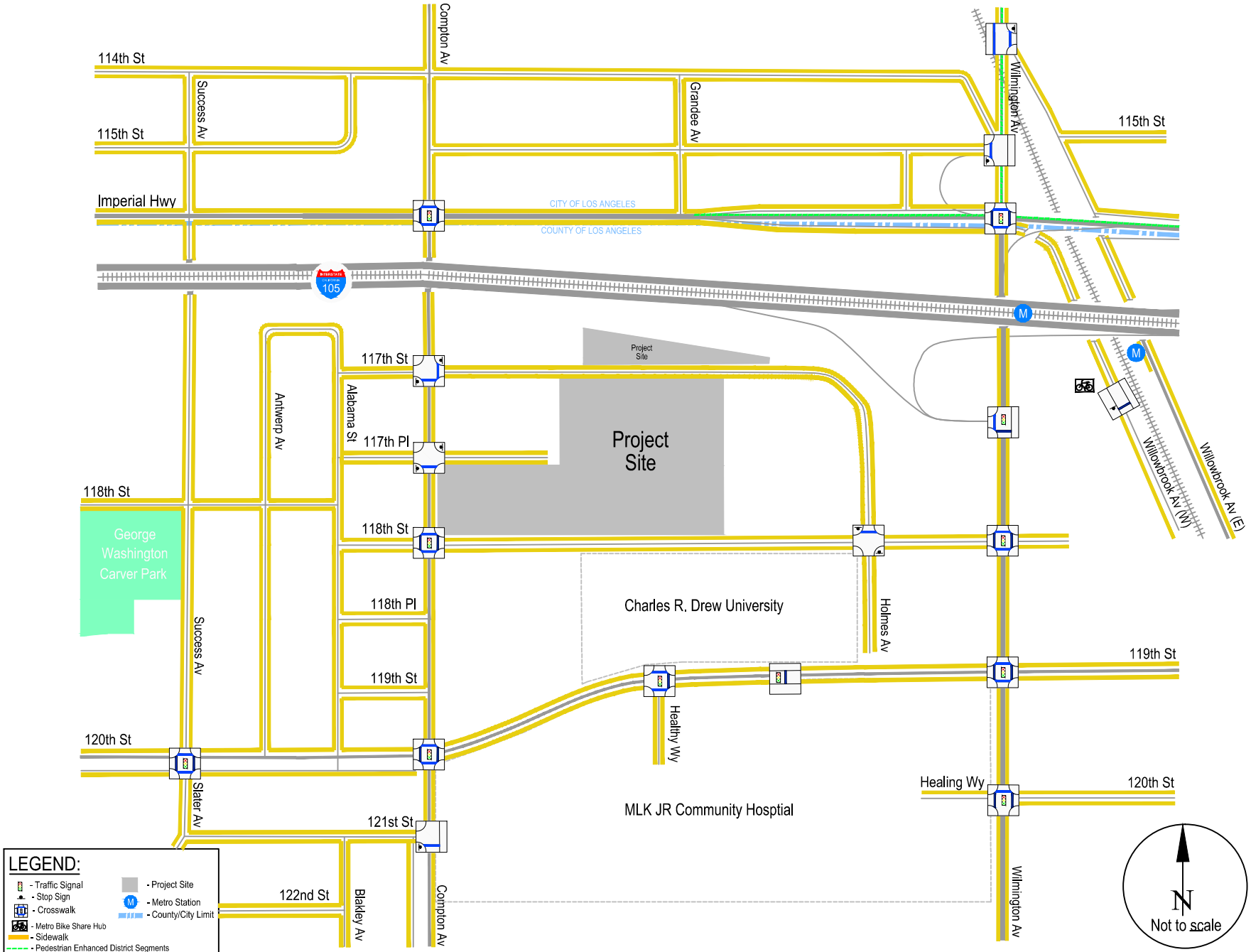

FIGURE 5
EXISTING PEDESTRIAN FACILITES

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As shown in Figure 5, Imperial Highway (between Grandee Avenue and Croesus Avenue) and Wilmington Avenue (between 113th Street and Imperial Highway) within the study area, are designated as Pedestrian Enhanced District Street segments in the City of Los Angeles's 2035 Mobility Plan. Pedestrian Enhanced Districts are an analysis of a snapshot in time of areas where pedestrian improvements are prioritized relative to other modes. These areas may be located near schools, transit stations, areas of high pedestrian activity, areas with high collision frequency, or other placemaking opportunity areas.

Proposed Pedestrian Projects

In 2019, Los Angeles County adopted the *Step By Step Los Angeles County Pedestrian Plans for Unincorporated Communities, September 2019, Los Angeles County Department of Public Health*. The *Step By Step* document outlines actions, policies, procedures, and programs that the County of Los Angeles will consider to enhance walkability across unincorporated communities. It also includes Community Pedestrian Plans that identify potential pedestrian infrastructure projects for specific unincorporated communities. The pedestrian plan for the Willowbrook/West Rancho Dominguez community (*Chapter 14 – Willowbrook/ West Rancho Dominguez Draft Community Pedestrian Plan*) is currently in draft form as of this writing. The following types of proposed pedestrian projects close to the Project Site have been included in the pedestrian plan for the Willowbrook/West Rancho Dominguez community:

- Modification of traffic signals to include lead pedestrian interval.
- Installation of protected left-turn signal phasing.
- Pedestrian scale lighting.
- Pedestrian activated warning system. This includes a Rectangular Rapid Flashing Beacon (RRFB) at the intersection of Compton Avenue and 117th Street.
- Yellow continental crosswalks.
- Curb extensions on the corners of intersections.
- Provision of speed humps.

The location of these proposed pedestrian improvements included in the County's *Step By Step* document is shown in Figure 6. To guide implementation of this Pedestrian Plan, the County has developed a prioritization framework to evaluate/score each proposed project. This process allows the County to focus on projects that will have the greatest impact, as funding becomes available and will help the County when applying for regional, state, and federal grant opportunities to fund implementation of the projects and programs included in the Plan.

Additionally, as discussed in Chapter 1, the Project proposes to vacate and convert a portion of 118th Street along the majority of the southern boundary of the Project Site (approximately 700 linear feet) from public right-of-way that permits vehicular travel to a private right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel. A drop-off/turnaround is proposed accessible from Compton Avenue along the western portion of 118th Street to allow for drop-off, pedestrian loading or deliveries. A second drop-off/turnaround is proposed adjacent to the existing Charles R. Drew University surface parking lot on the south side of 118th Street and a parking structure on the north side of 118th Street. The 118th Street pedestrian promenade would include landscaping and seating areas adjacent to the proposed buildings on the north and south sides as well as pedestrian walkways.

Potential Pedestrian Destinations

The pedestrian network consisting of sidewalks, intersections with signalized crossing and crosswalks, provide connectivity to the potential pedestrian destinations within the study area, a distance of one-quarter mile radius from the Project Site per the County of Los Angeles' TIA Guidelines. These potential pedestrian destinations are shown in Figure 7.

As shown in Figure 7, the destinations within the study area include several transit stops and other facilities including schools/educational facilities, places of worship, healthcare (hospital/clinics), local neighborhood markets, library, fire station, local neighborhood restaurants, park with playground, and shopping mall/strip retail.

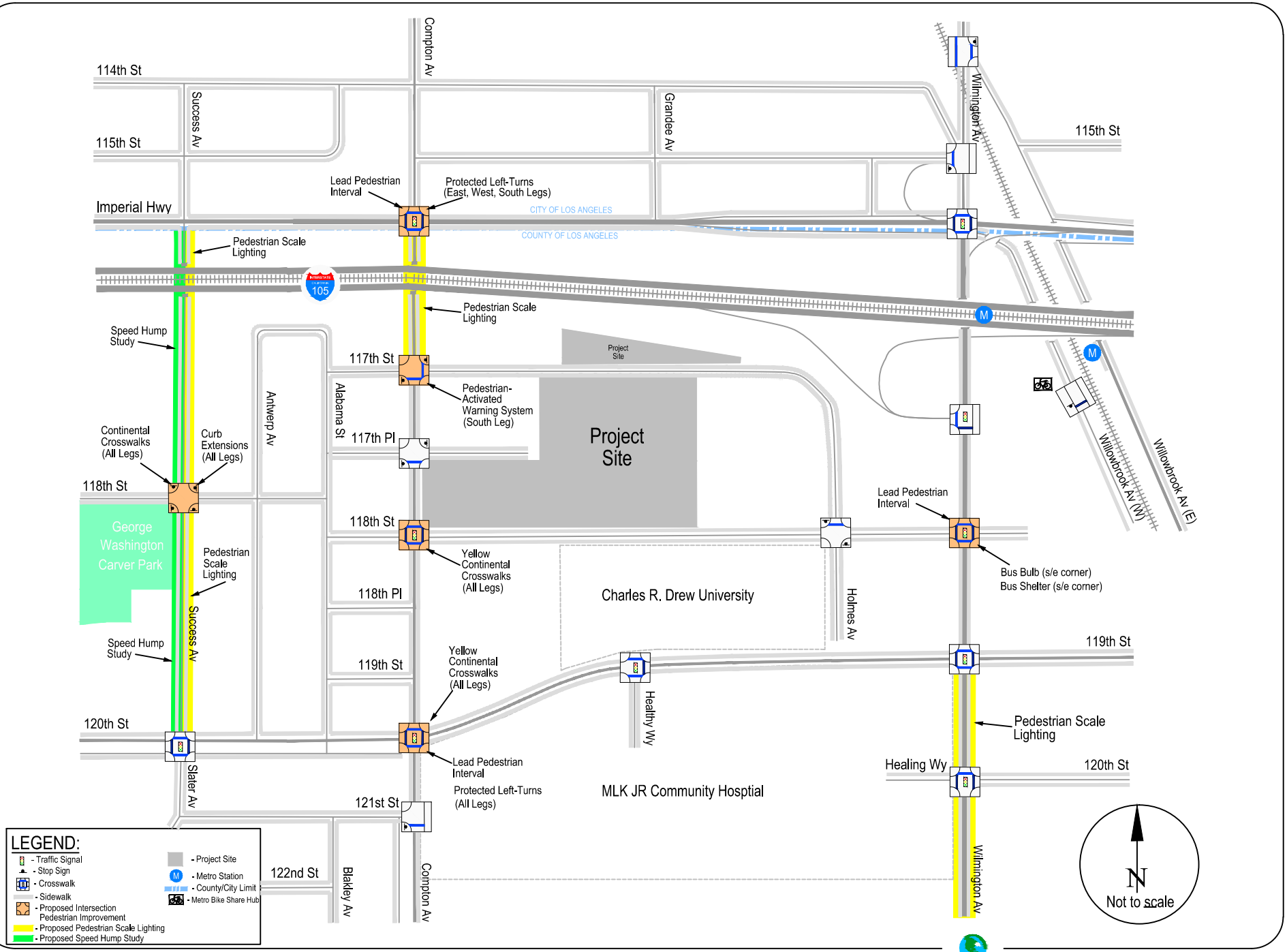

FIGURE 6
FUTURE PROPOSED PEDESTRIAN IMPROVEMENTS

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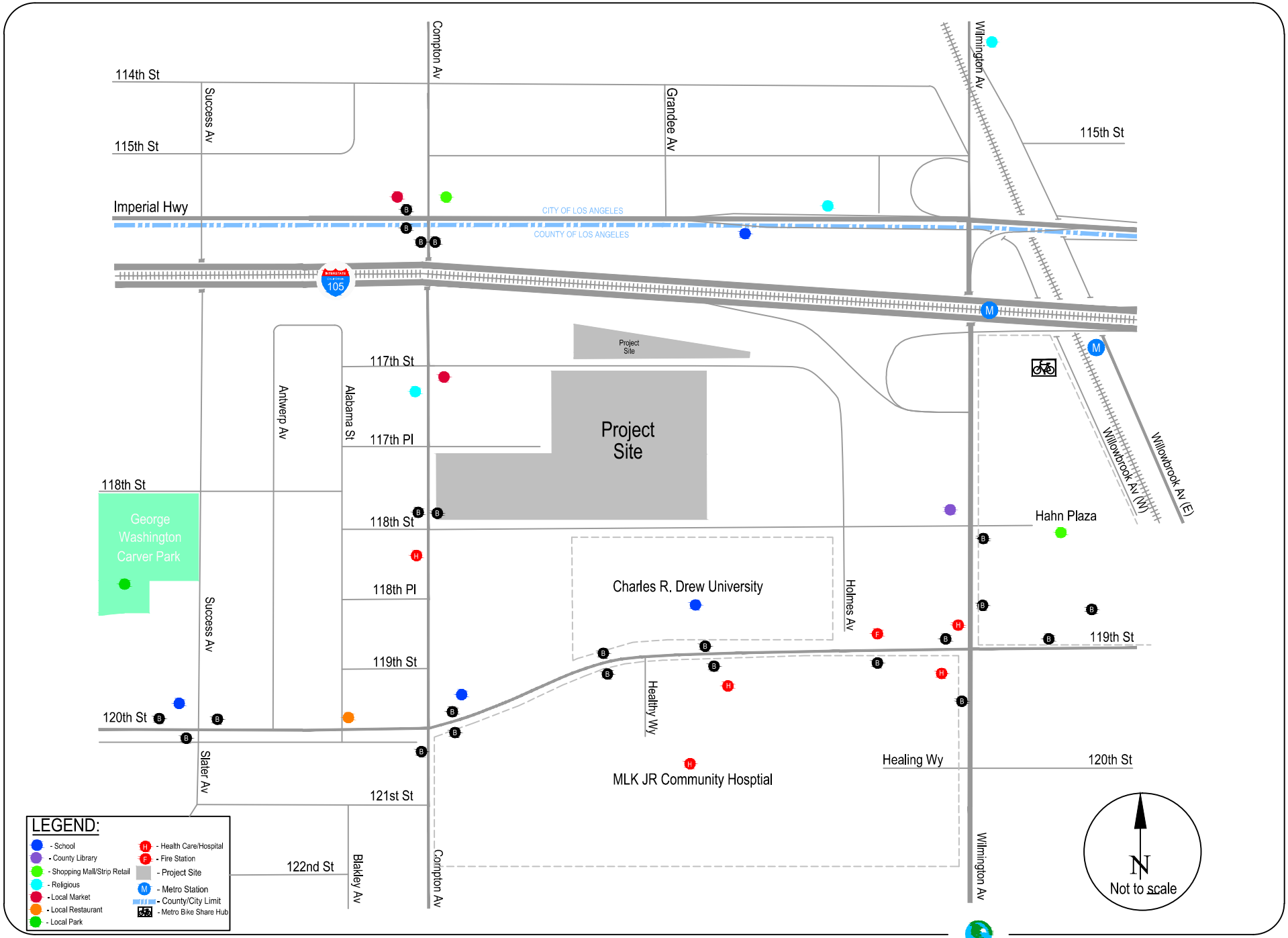

FIGURE 7
POTENTIAL PEDESTRIAN DESTINATIONS

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BICYCLE FACILTIES

The County of Los Angeles' *Bicycle Master Plan, March 2012* and the City of Los Angeles' *2010 Bicycle Plan* (which has been incorporated into the City's Mobility Plan 2035) document the existing and proposed bicycle facilities within the study area.

These facilities are classified as Bike Paths (Class I), Bike Lanes/Buffered Bike Lanes (Class II), Bike Routes/Bike Boulevards (Class III), and Protected Bike Lanes (Class IV). A brief description of these facilities follows:

- Class I – Bike Paths are exclusive car-free facilities that provide a paved right-of-way for bicyclists, pedestrians, and other non-motorized travel modes with cross flow of motorists minimized.

- Class II – Bike Lanes are on-street lanes that are dedicated only for bicycles and identified by a striped one-way bike lane separated from vehicular lanes. Buffered Bike Lanes are conventional bike lanes with a designated buffer space separating the bike lane from the adjacent motor vehicle lane and parking lane. Colored pavement may be added for bike lanes and buffered bike lanes to increase visibility of the facility, identify conflict areas, and reinforce priority to bicyclists in conflict areas.

- Class III – Bike Routes are in-road bikeways (typically the right-most lane in the direction of travel) where bicycles and motor vehicles share the roadway. Bike Boulevards are bike routes with low motorized traffic volumes. They are designated and designed to give bicycle travel priority. Posted signage for bicycle use and shared lane markings (sharrows or greenback sharrows) are typically included for bike routes and bike boulevards.

- Class IV – Protected Bike Lanes are bike lanes with physical barriers provided between the bike lane and other travel lanes. Protected bike lane treatments may be one-way or two-way facilities. Colored pavement may be added.

- Bike Boulevards - Bicycle boulevards are local roads or residential streets that have been enhanced with signage, traffic calming, and other treatments to prioritize bicycle travel. Bicycle boulevards are typically found on low-traffic / low-volume streets that can accommodate bicyclists and motorists in the same travel lanes, without specific bicycle lane delineation.

A detailed description of the existing bicycle facilities within the study area and an evaluation of the future bicycle network planned is presented in the following sections.

Existing Bicycle Facilities

Figure 8 shows the existing bicycle facilities in the study area. As shown in the figure, existing bicycle facilities are provided on the following streets:

Class II Bike Lanes

- Bike Lanes:
  - Imperial Highway, westbound direction from Grandee Avenue to Central Avenue
  - 120th Street, eastbound and westbound directions from Compton Avenue to Wilmington Avenue

Class III Bike Routes

- Bike Routes with Sharrows:
  - Success Avenue, northbound and southbound directions, from Imperial Highway to 120th Street. Bike route continues on to Slater Avenue and ends at El Segundo Boulevard.
  - 119th Street, eastbound and westbound directions from Wilmington Avenue to Mona Boulevard.
  - Wilmington Avenue, northbound and southbound directions, from 104th Street to Imperial Highway.

Class IV Protected Bike Lanes

- Protected Bike Lanes:
  - Willowbrook Avenue (west), northbound and southbound direction from Willowbrook/Rosa Parks Metro Station to 120th Street.

Additionally, a Metro Bike Share Station is located near the Metro Rosa Park/Willowbrook Station located within the Hahn Shopping Center. Metro Bike Share provides 24-hour access to a fleet of bicycles for short trips.

Future Planned Bicycle Facilities

Future planned bicycle facilities are also shown in Figure 8. As shown in the figure, future planned bicycle facilities are provided on the following streets:

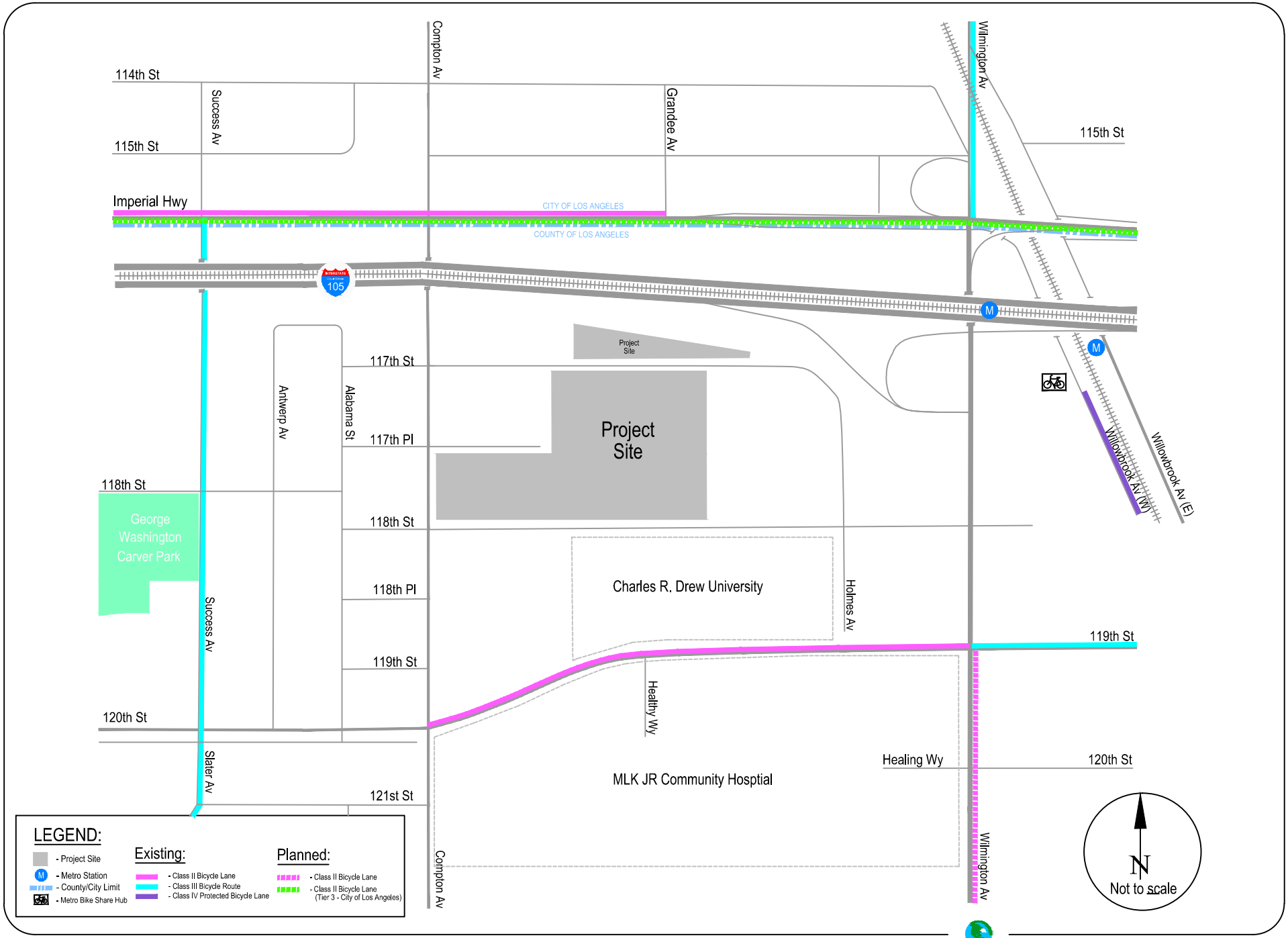

FIGURE 8
EXISTING AND PLANNED BICYCLE FACILITIES

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Planned Class II Bike Lanes

- Bike Lanes:
    - Class II Bike Lanes are planned along Wilmington Avenue, northbound and southbound directions, from 120th Street to El Segundo Boulevard.

    - City of Los Angeles Tier 3 Bike Lanes are planned along Imperial Highway, eastbound and westbound directions, from Central Avenue to Mona Boulevard.

        - The City of Los Angeles' Bicycle Lane Network is a proposed network of bicycle lanes on arterial roadways with striped separation. The Bicycle Lane Network is comprised of Tier 2 and Tier 3 Bicycle Lanes. Tier 2 Bicycle Lanes are planned priority bicycle lanes on arterial roadways with striped separation. Tier 3 Bicycle Lanes are planned bicycle lanes on arterial roadways with striped separation but are less priority than Tier 2.

The Project would encourage bicycle travel by providing a total of 366 bicycle spaces (294 long-term spaces and 72 short-term spaces) located all around the Project Site.

EXISTING TRANSIT CONDITIONS

Nine bus lines and two light rail lines currently serve the study area. Five bus lines as well as the Metro A Line and C Line are operated by the Los Angeles County Metropolitan Transportation Authority (MTA or METRO), one bus line is operated by Los Angeles Department of Transportation (LADOT Dash), two lines are operated by Los Angeles County Public Works (LINK) and one line is operated by Gardena Transit (GT). These transit lines are described in the following section.

- MTA 53 - Line 53 is a local north/south line that provides service from Carson to Downtown Los Angeles and travels primarily along Central Avenue, 119th Street, 120th Street, Wilmington Avenue, Willowbrook Avenue (west), Imperial Highway and I-105 Freeway within the study area. This line runs every day, including holidays, at a peak frequency of approximately 10 minutes. The northern terminus is at the intersection of Beaudry Avenue and 5th Street in Downtown Los Angeles. The southern terminus is CSU Dominguez Hills in Carson.

- MTA 55 - Line 55 is a local north/south line that provides service from Downtown Los Angeles to Willowbrook and travels primarily along Compton Avenue, 119th Street, 120th Street, Wilmington Avenue and Willowbrook Avenue (west) within the study area. This line runs every day, including holidays, at a peak frequency of approximately 10-12 minutes during peak commute hours. The northern terminus is at the intersection of Sunset Boulevard and Figueroa Street in Downtown Los Angeles. The southern terminus is at the Willowbrook/Rosa Parks Metro Station in the Willowbrook community of Los Angeles County.

- MTA 120 – Line 120 is a local east/west line that provides service from Whittier to El Segundo and travels primarily along Imperial Highway, Compton Avenue, 119th Street, 120th Street, Wilmington Avenue and Willowbrook Avenue within the study area. This line runs every day, including holidays, at a frequency of approximately 40 minutes during peak commute hours. The eastern terminus is at the Whittwood Town Center in Whittier. The western terminus is at the Aviation/LAX Metro Station in El Segundo.

- MTA 202 - Line 202 is a local north/south line that provides service from Willowbrook to Rancho Dominguez and travels primarily along Wilmington Avenue, Willowbrook Avenue (west) and 119th Street within the study area. This line runs Monday through Friday, including some holidays, at a peak frequency of approximately 60 minutes. The northern terminus is at the Willowbrook/Rosa Parks Metro Station in Willowbrook. The southern terminus is at the Del Amo Station in Rancho Dominguez.

- MTA 205 - Line 205 is a local north/south line that provides service from Willowbrook to San Pedro and travels primarily along Wilmington Avenue, Willowbrook Avenue (west) and 119th Street within the study area. This line runs every day, including holidays, at a peak frequency of approximately 30 minutes. The northern terminus is at the Willowbrook/Rosa Parks Metro Station in Willowbrook. The southern terminus is at the intersection of Harbor Boulevard and 6th Street in San Pedro.

- Metro A Line – The Metro A Line is a north/south light-rail line that provides service from Long Beach to Los Angeles to Azusa and travels primarily adjacent to Willowbrook Avenue within the study area. This line runs every day, including holidays, at a peak frequency of approximately 10 minutes during peak commute hours. The northern terminus is at Citrus College in Azusa. The southern terminus is at the intersection of Pacific Avenue and 1st Street in Long Beach.

- Metro C Line – The Metro C Line is an east/west light-rail line that provides service from Norwalk to Redondo Beach and travels primarily along the median of Glenn Anderson Freeway (I-105) within the study area. There is one station serving the study area – Imperial/Wilmington Rosa Parks Metro Station. This line runs every day, including holidays, at a peak frequency of approximately 10 minutes during peak commute hours. The eastern terminus is at Norwalk Metro Station. The western terminus is at Redondo Beach Metro Station.

- LADOT Dash Watts – This is a LADOT Dash line that provides service to the Watts area of the City of Los Angeles. This line is a local circulator route that travels primarily along 119th Street and 120th Street within the study area. It operates in both the clockwise and counterclockwise directions. This line runs every day, except on holidays, at a frequency of approximately 20 minutes. The terminus is at the Kenneth Hahn Plaza in Willowbrook.

- GT LINE 5 - Line 5 is a local east/west line that provides service from Willowbrook to El Segundo and travels primarily along Compton Avenue, 119th Street, 120th Street, Wilmington Avenue and Willowbrook Avenue (west) within the study area. This line runs Monday through Friday, at a peak frequency of approximately 60 minutes. The eastern terminus is at the Willowbrook/Rosa Parks Metro Station in Willowbrook. The western terminus is at the Aviation/LAX Metro Station in El Segundo.

- LINK Willowbrook Route A – Route A is a local east/west shuttle route that provides service from Willowbrook to West Rancho Dominguez-Victoria communities of Los Angeles County and travels primarily along Compton Avenue, 120th Street, 123rd Street, Elva Avenue, Slater Avenue and Wilmington Avenue within the study area. This line runs Monday through Saturday, except holidays, at a frequency of approximately 60 minutes. The eastern terminus is at the Kenneth Hahn Shopping Center in Willowbrook. The western terminus is at the intersection of San Pedro Street and 135th Street in West Rancho Dominguez-Victoria.

- LINK Willowbrook Route B – Route B is a local circulator shuttle route (operating in a clockwise direction) that provides service around the Willowbrook area and travels primarily along Compton Avenue, 119th Street, 120th Street, Wilmington Avenue, Willowbrook Avenue (west), Imperial Highway and 124th Street within the study area. This line runs Monday through Saturday, except holidays, at a frequency of approximately 30 minutes.

Table 1 summarizes transit lines serving the study area. The table includes the service provider, line number, service area, service type, hours of operation, and frequency. These transit lines are also illustrated in Figure 9. It can be observed that the Project Site is within walking distance to several bus routes and Metro A and C Line Stations. Bus stops are located along Compton Avenue, Wilmington Avenue and 120th Street.

VISION ZERO PROGRAM

The County of Los Angeles' and the City of Los Angeles' Vision Zero Programs aim to decrease transportation-related serious injuries and fatalities on City streets through a number of strategies including modifying the design of streets to improve the safety for vulnerable road users.

Both the County of Los Angeles and the City of Los Angeles have identified a High Injury Network (HIN), where a relatively small number of streets had a disproportionate number of traffic collisions. Future improvement projects, policies, and programs have been prioritized at intersections and along corridors identified within the HIN to reduce traffic violence. Figure 10 shows the HIN within the study area. The streets included in the HIN follows:

County of Los Angeles HIN Locations:

- Compton Avenue between Imperial Highway and 120th Street is included in the HIN.
- Wilmington Avenue between Imperial Highway and 126th Street is included in the HIN.
- Imperial Highway between (west of) Slater Avenue and west of Grandee Avenue is included in the HIN.

TABLE 1
EXISTING TRANSIT SERVING THE STUDY AREA

Line/Route	Service Type	Direction	Origin	Destination	Hours of Operation	Weekday Headways Peak (min)
Los Angeles County Metropolitan Transportation Authority (MTA) [1]						
Line 53	Local Bus	North/South	Downtown Los Angeles	Carson	Mon-Fri 3:50AM-1:11 AM; Sat-Sun 3:45AM-1:10AM	10
Line 55	Local Bus	North/South	Downtown Los Angeles	Willowbrook	Mon-Fri 4:51AM-9:22PM; Sat-Sun 4:55AM-8:58PM	10-12
Line 120	Local Bus	East/West	El Segundo	Whittier	Mon-Fri 4:19AM-12:55AM; Sat-Sun 4:39AM-12:53AM	40
Line 202	Local Bus	North/South	Willowbrook	Rancho Dominguez	Mon-Fri 6:01AM-7:35PM	60
Line 205	Local Bus	North/South	Willowbrook	San Pedro	Mon-Fri 4:22AM-12:12AM; Sat-Sun 4:48AM-12:12AM	30
A Line (Crenshaw/LAX)	Light Rail	North/South	Long Beach	Azusa	Mon-Sun 3:38AM-1:04AM	10
C Line (Crenshaw/LAX)	Light Rail	East/West	Redondo Beach	Norwalk	Mon-Sun 3:33AM-12:34AM	10
Los Angeles County Public Works [2]						
Link Willowbrook Route A	Local Shuttle	East/West	West Rancho Dominguez-Victoria	Willowbrook	Mon-Fri 7:00AM-6:00PM; Sat 9:00AM-6:00PM	60
Link Willowbrook Route B	Local Circulator Shuttle	Clockwise Direction	Willowbrook	Willowbrook	Mon-Fri 7:00AM-6:00PM; Sat 9:00AM-6:00PM	30
Los Angeles Department of Transportation (LADOT) [3]						
Dash Watts	Local Circulator Shuttle	Circulator - Clockwise & Counterclockwise Directions	Willowbrook	Watts	Mon-Fri 6:00AM-7:33PM; Sat-Sun 8:52AM-6:33PM	20
Gardena Transit (GT) [4]						
Line 5	Local Bus	East/West	El Segundo	Willowbrook	Mon-Fri 5:35AM-8:27PM	60

[1] Source: Los Angeles County Metropolitan Transit Authority (MTA) website (metro.net)
[2] Source: Los Angeles County Public Works website (pw.lacounty.gov/transit/thelinkwillowbrook)
[3] Source: Los Angeles Department of Transportation (LADOT) Transit Services website (ladottransit.com)

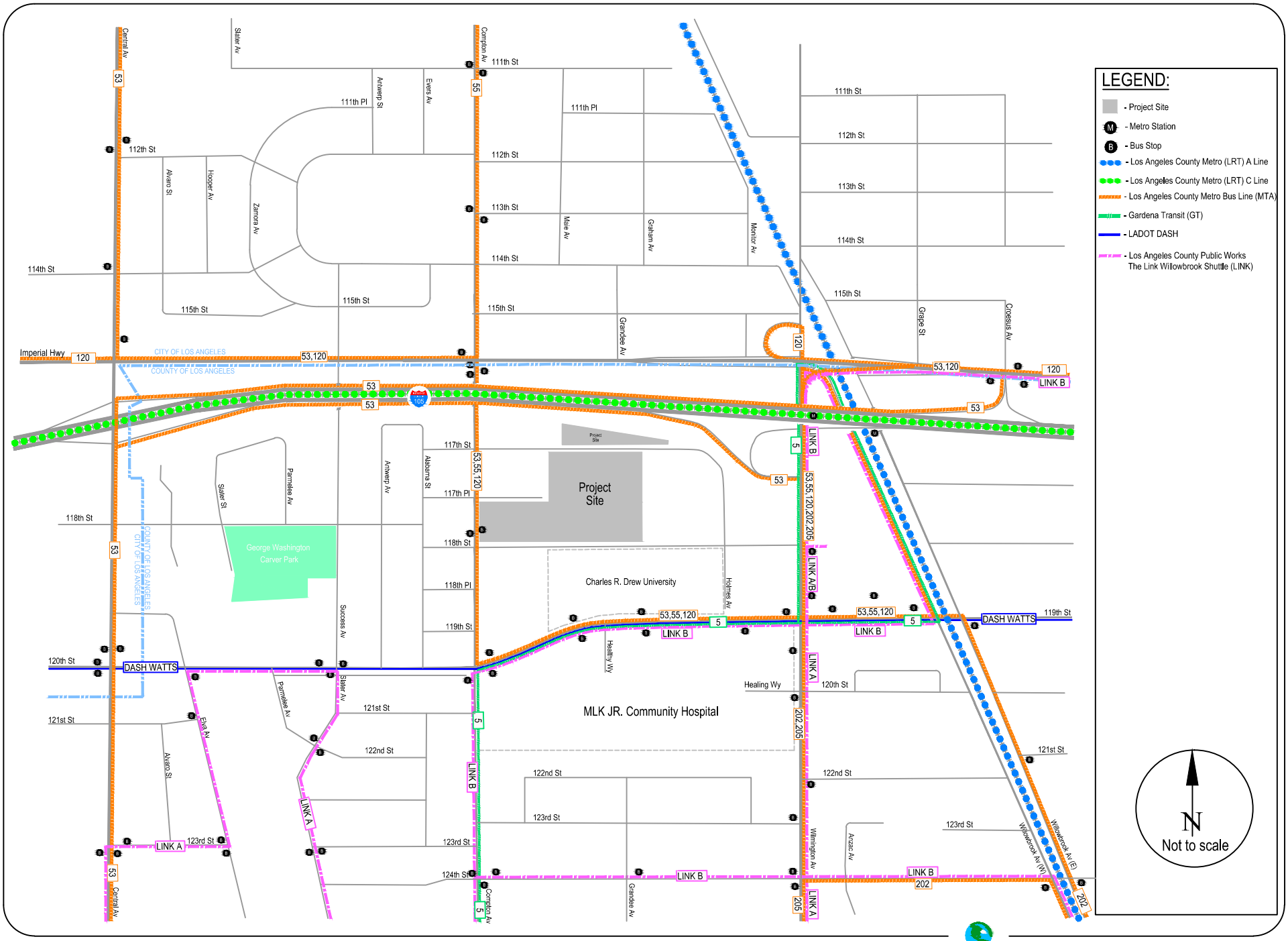

FIGURE 9
EXISTING TRANSIT LINES

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FIGURE 10
VISION ZERO - HIGH INJURY NETWORK

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City of Los Angeles HIN Locations:

- Compton Avenue between 99th Street and Imperial Highway is included in the HIN.
- Wilmington Avenue between 103rd Street and Imperial Highway is included in the HIN.
- Imperial Highway between Central Avenue and Compton Avenue is included in the HIN.

As identified above, a portion of the Project's frontage is located along Compton Avenue, a roadway identified in the County's High Injury Network. Pedestrian improvements along Compton Avenue have been identified as part of the County's Step By Step Plan which serves as a critical step in implementing the County's Vision Zero goal of eliminating fatal and severe injury traffic collisions. The Project would not preclude future Vision Zero and Step By Step Plan safety improvements identified by the County of Los Angeles.

Additionally, the Project supports the goals and policies of the County's Vision Zero Program by creating a pedestrian promenade along 118th Street that would provide a pedestrian and bicycle connection to the existing CDU Campus, allowing students and faculty to safely cross between the Campus and the Project Site. Therefore, the Project does not conflict with the Vision Zero Program.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection traffic conditions, and the resulting level of service conditions at the study intersection.

Existing Traffic Volumes

Weekday morning (AM) and evening (PM) peak hour traffic counts were compiled from data collected at the study (non-CEQA) intersections in April 2023. The Existing (2023) peak hour traffic volumes reflect typical weekday operations during current year 2023 conditions. The traffic volumes in Figure 11 present the Existing (2023) conditions during the AM and PM peak hours. These volumes provide the basis for the future conditions' analyses.

The raw intersection turning movement counts are also included in Appendix C.

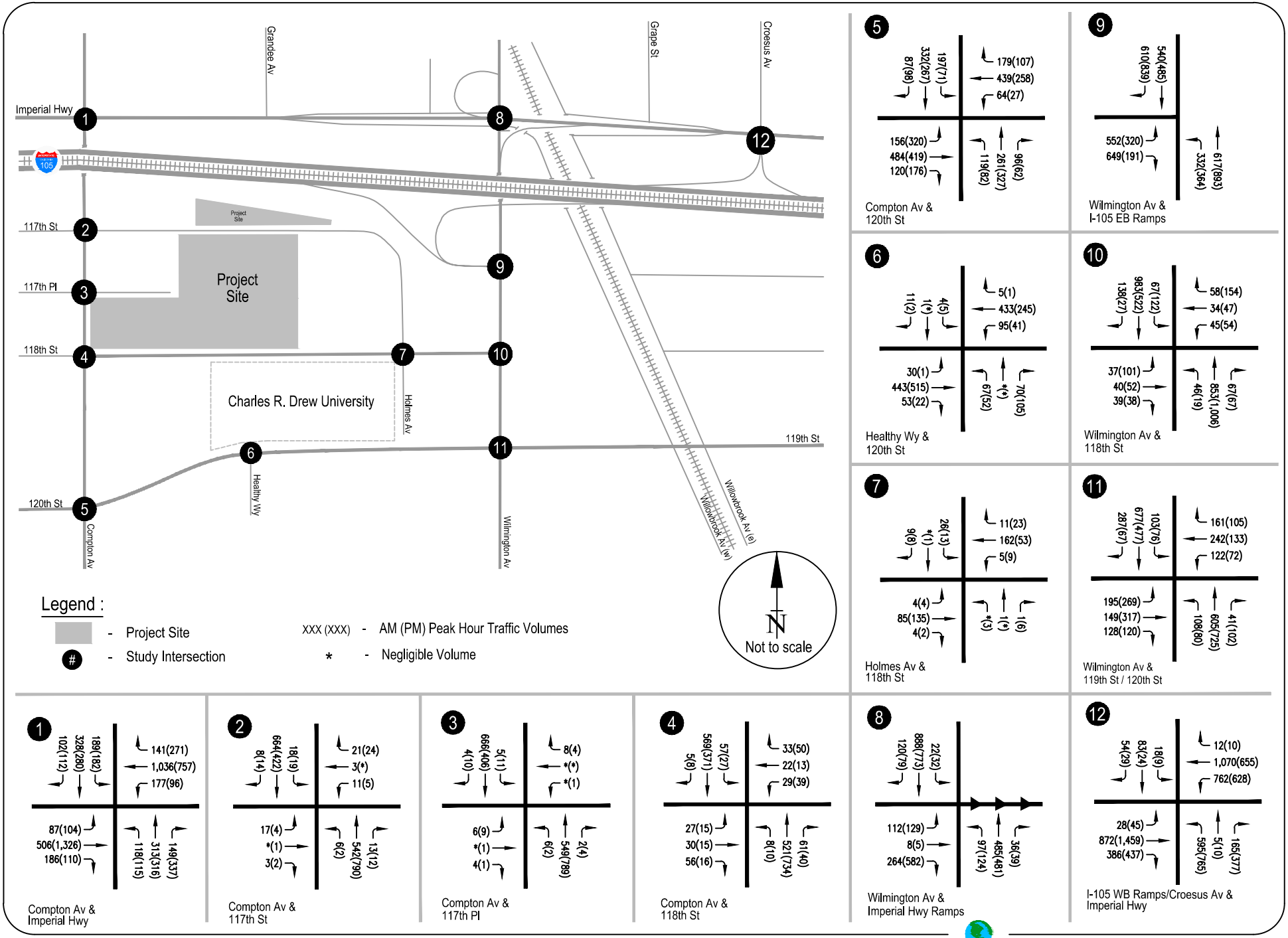

FIGURE 11
EXISTING (2023) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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Level of Service (LOS) Methodology

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. Nine of the 12 study locations are signalized intersections, and three locations are stop-controlled on the minor approaches. The LOS definitions for signalized and unsignalized (stop-controlled) intersections are provided in Table 2 and Table 3, respectively.

Consistent with the County of Los Angeles' TIAG, the intersection capacity analysis was conducted using the Highway Capacity Manual, 6th Edition (Transportation Research Board, 2016) (HCM) signalized intersection methodologies. The HCM signalized methodology calculates the average control delay, in seconds, for each vehicle passing through the intersection. Table 2 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized intersections.

For the unsignalized location, intersection capacity analysis was conducted using the HCM 6th Edition unsignalized intersection methodologies. Two-way stop-controlled intersection LOS is defined in the HCM based on the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns.

Existing Levels of Service

The existing traffic volumes presented in Figure 11 for AM and PM peak hours were used in conjunction with the level of service methodologies described above, and the current intersection characteristics illustrated in Appendix B, to determine the existing operating conditions at the analyzed intersections.

Table 4 summarizes the results of the intersection capacity analysis for existing conditions at the analyzed intersections in the study area. The table indicates the existing average control delay for each intersection approach during the morning and evening peak hours and the corresponding LOS. As indicated in the table, all 12 study intersections are currently operating at LOS D or better during both the morning and evening peak hours under Existing (2023) conditions.

The operational calculation worksheets for Existing (2023) conditions are provided in Appendix D of the report.

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Average Stopped Delay per Vehicle (seconds)	Definition
A	≤ 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	> 10.0 and ≤ 20.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 20.0 and ≤ 35.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 35.0 and ≤ 55.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 55.0 and ≤ 80.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Highway Capacity Manual, Transportation Research Board, 2016

TABLE 3
LEVEL OF SERVICE DEFINITIONS
FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	$\leq$ 10.0
B	> 10.0 and $\leq$ 15.0
C	> 15.0 and $\leq$ 25.0
D	> 25.0 and $\leq$ 35.0
E	> 35.0 and $\leq$ 50.0
F	> 50.0

Source: Highway Capacity Manual 6th Edition, Transportation Research Board, 2016.

TABLE 4
EXISTING (2023) INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
1.	Compton Avenue & Imperial Highway	22.8	C	26.7	C
2.	Compton Avenue & 117th Street [1]	18.3	C	11.9	B
3.	Compton Avenue & 117th Place [1]	15.0	B	11.2	B
4.	Compton Avenue & 118th Street	7.7	A	6.4	A
5.	Compton Avenue & 120th Street	16.6	B	16.2	B
6.	Health Way & 120th Street	9.0	A	10.6	B
7.	Holmes Avenue & 118th Street [1]	10.8	B	10.0	A
8.	Wilmington Avenue & Imperial Highway Ramps	21.8	C	37.5	D
9.	Wilmington Avenue & I-105 Freeway Eastbound Ramps	30.2	C	18.3	B
10.	Wilmington Avenue & 118th Street	14.9	B	20.5	C
11.	Wilmington Avenue & 119th Street-120th Street	21.5	C	19.7	B
12.	I-105 Freeway Westbound Ramps-Croesus Avenue & Imperial Highway	48.9	D	50.1	D

Delay - Based on HCM methodology in seconds per vehicle
LOS - Level of Service
[1] Unsignalized intersection. Stop controlled on minor approach. Worst case approach delay is reported in table.

III. CEQA ANALYSIS

The analysis of transportation impacts associated with the Project was prepared utilizing the methodologies and assumptions consistent with the latest County of Los Angeles' TIAG. The results were then used to assess the potential impact of the Project based on the significance thresholds established by the County of Los Angeles. This chapter includes a summary of the screening criteria, impact criteria, methodology and mitigation (if needed) for the California Environmental Quality Act (CEQA) transportation analysis of the proposed Project.

Per the Governor's Office of Planning and Research (OPR), project impacts are evaluated per Section 15064.3 of the current CEQA guidelines (*Appendix G* of the CEQA guidelines), which requires that projects be assessed for how they would affect the four criteria listed below:

a) *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

b) *Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

d) *Would the project result in inadequate emergency access?*

Therefore, the CEQA evaluation consists of analysis of transportation impacts for the following CEQA established considerations for development projects:

- Consistency with Plans, Programs, Ordinances or Policies
- Vehicle Miles Traveled (VMT) Assessment
- Hazards Due to Geometric Design Feature
- Emergency Access

CONSISTENCY WITH PLANS, PROGRAMS, ORDINANCES OR POLICIES

This section provides a CEQA evaluation of the Programs, Plans, Ordinances, and Policies. Per the CEQA Appendix G Environmental Checklist, this threshold considers the following question, "*Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*"

Analysis/Project Impact

Based on a review of the relevant policies and programs to assess whether the proposed project precludes the County's implementation of any adopted policy and/or program, it was observed that the Project generally conforms with, and does not obstruct or impede the County's development policies and standards generally considered to be consistent. Further, the Project does not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Therefore, the Project does not cause a significant impact relative to the consistency with plans, programs, ordinances, or policies. A detailed evaluation of this threshold is included below.

Willowbrook Transit Oriented District Specific Plan, 2018. The Willowbrook TOD Specific Plan is focused around the Willowbrook/Rosa Parks Station, which is a transfer station on the Metro A Line and C Line. The Plan Area is approximately 312 acres. Some of the key facilities that are located within the Plan Area are Martin Luther King, Jr. (MLK) Medical Center, Charles R. Drew University of Medicine and Science (CDU), Kenneth Hahn Plaza, Willowbrook Library, and MLK Center for Public Health. The Project is located within the Northwest Subarea of Willowbrook TOD Specific Plan Area and is governed by the Willowbrook TOD Specific Plan development and design standards.

The Specific Plan envisions that over time, this subarea will capitalize on its proximity to CDU and MLK Medical Center and become a mixed-use district with employment generating uses and residential infill. The Specific Plan encourages employment generating uses such as medical back office, laboratory facilities, hospital equipment facility, medical or university support businesses, etc. that provide job opportunities for both local residents and others. The Specific Plan also envisions residential infill that provides housing options for current and future workers, students, and residents in the area.

The purpose of the Willowbrook TOD Specific Plan is to allow for revitalization of the community within the Plan Area and encourage improvement of access to all modes of transportation, including transit, walking and bicycling. The Specific Plan is intended to facilitate the transformation of the area around the Metro Willowbrook/Rosa Parks Station into a vibrant transit-oriented district, while strengthening its connections to the adjacent residential neighborhoods and the rest of the Willowbrook community. The Specific Plan also presents short- and long-term land use strategies for the various institutions and facilities in the Specific Plan Area, which will be important in achieving the established community goals. The seven major goals identified for the Plan Area include: [1] Preserve and enhance the character of the Willowbrook community; [2] Improve the Willowbrook/Rosa Parks Station and its environs; [3] Encourage transit-oriented development; [4] Provide affordable housing opportunities; [5] Promote active transportation and reduce vehicle miles traveled; [6] Improve quality of life for existing residents with improvements to the public realm; and, [7] Improve economic vitality and employment opportunities.

The Project is shown to align with the goals identified in the Willowbrook TOD Specific Plan. The Project's proposed uses (residential uses for students and faculty, office use supporting the CDU Campus) align with the Specific Plans vision of the Northwest Subarea. The Project does not preclude proposed improvement strategies targeted to meet the goals. The Project has also been found to be consistent with the policies and objectives of the Willowbrook TOD Specific Plan.

The Project supports the goals and policies by proposing a development that promotes and encourages walking, biking, and transit ridership. Currently, CDU is primarily a commuter campus. The Project is proposing 250 dwelling units (426 bedrooms) for students and 55 dwelling units for faculty and staff emphasizing characteristics of a residential campus which will reduce long range trips to and from the campus. The Project would also enhance pedestrian circulation and promote an active streetscape along its frontages adjacent to the sidewalk and create safe pedestrian connections to/from the Project Site. The Project would provide new sidewalks/parkways along its frontages and pedestrian pathways throughout the Project Site. Additionally, the Project proposes the vacation and conversion of a portion of 118th Street along the majority of the southern boundary of the Project Site from a right-of-way that permits vehicular travel to a right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel. The pedestrian promenade would provide a pedestrian and bicycle connection to the existing CDU Campus, allowing students and faculty to safely cross between the Campus and the Project Site.

The Project would encourage bicycle travel by providing a total of 366 bicycle spaces (294 long-term spaces and 72 short-term spaces) located all around the Project Site. The Project proposes pedestrian and bicycle components described above that promote transit use, walking, and bicycling and thereby, reducing automobile travel to the Project Site. Additionally, the Project's close proximity to several public transportation options support this policy by allowing students and faculty/employees to commute via alternative modes thereby reducing volumes.

The Project applicant is requesting a Plan Amendment of the Willowbrook TOD Specific Plan to allow up to five stories and 70 feet for the proposed Faculty/Staff housing building, three student housing buildings, and the office building on the Project Site. The height limit within the current Specific Plan is four stories and 50 feet. In addition, the Specific Plan amendment would authorize the proposed eight-level parking structure and total height of 110 feet, excluding any rooftop mechanical equipment. The Specific Plan amendment would also modify the minimum residential unit sizes in the MU-2 zone, consistent with the Project. It is worth noting, however, that the Project is consistent with the transportation plans, policies, programs and ordinances.

Los Angeles County Bicycle Master Plan, March 2012. The Los Angeles County Bicycle Master Plan designates a countywide network of bicycle paths, bicycle-lanes, and bicycle routes in the vicinity of the study area. Per the Plan, *"The Plan provides direction for improving mobility of bicyclists and encouraging more bicycle ridership within the County by expanding the existing bikeway network, connecting gaps, addressing constrained areas, providing for greater local and regional connectivity, and encouraging more residents to bicycle more often."*

As discussed in Chapter 2, existing bicycle lanes are provided along 120th Street and Imperial Highway, as well as protected bike lanes provided along Willowbrook Avenue. Existing bike routes are designated along Success Avenue, 119th Street, and Wilmington Avenue. Bike lanes are planned along Wilmington Avenue south of 120th Street. Additionally, an extension of the bike lanes along Imperial Highway is also planned.

The Project supports the policies and goals of the Los Angeles County Bicycle Master Plan by providing a total of 366 bicycle parking spaces (294 long-term and 72 short-term spaces) located all around the Project Site. Additionally, the Project proposes the vacation and conversion of a portion of 118th Street along the majority of the southern boundary of the Project Site that would eliminate vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel. These Project components will encourage bicycle travel. The Project does not preclude any planned improvements included as part of the Los Angeles County Bicycle Master Plan. Therefore, the Project is consistent with this Plan.

Step By Step Los Angeles County Pedestrian Plans for Unincorporated Communities, September 2019. In 2019, Los Angeles County adopted *Step By Step Los Angeles County Pedestrian Plans for Unincorporated Communities, September 2019, Los Angeles County Department of Public Health*. The Plan serves as a critical step in implementing the County's Vision Zero goal of eliminating fatal and severe injury traffic collisions. The *Step By Step* document outlines actions, policies, procedures, and programs that the County of Los Angeles will consider to enhance walkability across unincorporated communities. It also includes Community Pedestrian Plans that identify potential pedestrian infrastructure projects for specific unincorporated communities. The pedestrian plan for the Willowbrook/West Rancho Dominguez community (*Chapter 14 – Willowbrook/ West Rancho Dominguez Draft Community Pedestrian Plan*) is currently in draft form as of this writing. The seven goal of the Plan includes:

- Goal 1 – Safe Streets. Eliminate all fatalities and severe injuries involving people walking.
- Goal 2: Make Walking the Easy and Healthy Choice. Communities, streets, and sidewalks are designed to promote walking and healthy living.
- Goal 3: Connectivity. Develop and maintain a complete pedestrian network that links transit, schools, parks, and other key destinations in the community.
- Goal 4: Equity. Make unincorporated Los Angeles County more walkable for all through equity in public engagement, service delivery, accessibility, planning, and capital investments.
- Goals 5: Safe Communities. Address real and perceived personal safety concerns to encourage walking.
- Goal 6: Sustainability and Preservation. Pedestrian projects and programs enhance the natural environment including clean air and water.
- Goal 7: Coordinated County Implementation. County agencies and communities work together to implement pedestrian projects, policies, and programs.

The Project encourages and promotes walking and bicycling by closing 118th Street to vehicular travel and creating a pedestrian promenade. The 118th Street pedestrian promenade would include landscaping and seating areas adjacent to the proposed buildings on the north and south sides as well as pedestrian walkways. The pedestrian promenade would provide a pedestrian and bicycle connection to the existing CDU Campus, allowing students and faculty to safely travel between the Campus and the Project Site. The Project supports the goals and policies of the Step by Step Plan and does not preclude any planned improvements identified as part of the Plan. Therefore, the Project is consistent with this Plan.

Vision Zero Los Angeles County, November 2019. County of Los Angeles' Vision Zero Program implements projects that are designed to increase safety on the most vulnerable City streets. This Vision Zero Action Plan focuses the County's efforts over the next five years to achieve the goal of eliminating traffic-related fatalities on unincorporated County roadways by 2035.

As discussed in Chapter 2, a portion of the Project's frontage is located along Compton Avenue, a roadway identified in the County's High Injury Network. Pedestrian improvements along Compton Avenue have been identified as part of the County's Step By Step Plan which serves as a critical step in implementing the County's Vision Zero goal of eliminating fatal and severe injury traffic collisions. The Project would not preclude future Vision Zero and Step By Step Plan safety improvements identified by the County of Los Angeles. Additionally, the Project supports the goals and policies of the County's Vision Zero Program by creating a pedestrian promenade along 118th Street that would provide a pedestrian and bicycle connection to the existing CDU Campus, allowing students and faculty to safely travel between the Campus and the Project Site. Therefore, the Project is consistent with the Vision Zero Program.

ConnectSoCal: 2020-2045 SCAG RTP/SCS (2020). The ConnectSoCal 2020-2045 SCAG RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern in the SCAG area. The Plan's core visions include: sustainable development, system preservation & resilience, demand & system management, transit backbone, complete streets, and goods movement. The RTP/SCS aims to reduce greenhouse gas emissions from transportation.

Due to its proximity to the Metro Rosa Parks/Willowbrook Stations, the Project promotes transit uses, encourages ridership, and reduces automobile travel to the Project Site. The Project is located within a Transit Priority Area (TPA) as defined by the Southern California Association of Government (SCAG), as part of SCAG's 2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In the SCAG 2045 Transit Priority Areas (TPA) are identified to be within one-half mile from major transit stops and high-quality transit corridors.

Since the Project is located within a TPA, the Project is presumed to cause a less than significant VMT transportation impact and is, therefore, consistent with the RTP/SCS in terms of the GHG reduction goals. Therefore, the Project is consistent with the ConnectSoCal: 2020-2045 SCAG RTP/SCS.

Metro Long Range Transportation Plan (2020). The Metro Long Range Transportation Plan provides a thirty-year vision for addressing growth and traffic in Los Angeles County. The Plan has priority goals including better transit, less congestion, complete streets, and access to opportunity.

Metro Long Range Transportation Plan (LRTP) Strategy 3.1. Improve safety for all users - The Project supports the strategy by providing open space, and landscaped elements along the Project perimeter and within the Project Site to create a walkable and safe pedestrian environment.

LRTP Strategy 3.2. Enhance access to transit stations - The Project is located within one-half mile of Metro's Rosa Parks/Willowbrook Station. Due to its proximity to the transit station, the Project promotes transit uses, encourages ridership, and reduces automobile travel to the Project Site.

LRTP Strategy 3.3. Establish active transportation improvements as integral elements of the transportation system – The Project supports this strategy by proposing a development that promotes and encourages walking, biking, and transit ridership. The Project would provide new sidewalks and parkways along its Project frontage, and secure on-site bicycle parking. Additionally, the Project encourages and promotes walking and bicycling by creating a pedestrian promenade along 118th Street. The 118th Street pedestrian promenade would include landscaping and seating areas adjacent to the proposed buildings on the north and south sides as well as pedestrian walkways. The pedestrian promenade would provide a pedestrian and bicycle connection to the existing CDU Campus, allowing students and faculty to safely travel between the Campus and the Project Site. The Project would also enhance pedestrian circulation and promote an active streetscape along the building frontage adjacent to the sidewalk and create safe pedestrian connections to/from the Project Site.

In summary, the Project is consistent with the Metro Long Range Transportation Plan.

Metro Short Range Transportation Plan (2014). The Metro Short Range Transportation Plan provides a ten-year plan to ensure the transportation system moves people and goods safely.

The Project would not preclude the implementation of Metro's Short-Rang Transportation Plan. Due to its proximity to the transit station, the Project promotes transit uses, encourages ridership, and reduces automobile travel to the Project Site. Therefore, the Project is consistent with the Metro Short Range Transportation Plan.

Cumulative Analysis

The Project has been reviewed in combination with nearby related projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. Related Projects located within 0.50 miles of the Project Site are identified in Table 6 (in Chapter IV).

A cumulative impact could occur if the project as well as other future development projects located on the same block were to preclude the County's ability to serve transportation user needs as defined by the County's transportation policy framework. It was observed that there is one related project located along the same block as the proposed Project. Similar to the Project, the related projects would be individually responsible for complying with relevant plans, programs, ordinances, or policies addressing the circulation system. Therefore, the Project, together with the related projects, would not result in cumulative impacts with respect to consistency with each of the plans, ordinances, or policies reviewed. The Project and the related projects would not interfere with any of the general policy recommendations and/or pilot proposals and, therefore, there would be no significant Project impact or cumulative impact.

VEHICLE MILES TRAVELED (VMT) ASSESSMENT

This section provides a CEQA evaluation of VMT for land uses or development projects in accordance with CEQA Appendix G. Per the CEQA Appendix G Environmental Checklist, this threshold considers the following question, "Would *the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?"*

The County has established the following project screening for the VMT assessment as cited in the County's TIAG.

Screening Criteria

The following screening criteria serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and the criteria to determine if a project generates a significant transportation impact. The County has adopted four VMT screening criteria including Non-Retail Project Trip Generation Screening, Retail Project Site Plan Screening, Proximity to Transit Based Screening and Residential Land Use Based Screening. Based on the Project's location, the Proximity to Transit Based Screening Criteria has been utilized.

CEQA Guideline Section 15064.3, subdivision (b)(1), states lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT. A major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (CA Public Resource Code Section 21064.3).

Proximity to Transit Based Screening Criteria (TIAG Section 3.1.2.3.)

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor?
    - **Project Response: Yes. The entire Project Site is located within a one-half (0.5) mile radius from the major transit stop of the Metro Rosa Parks/Willowbrook Station which serves the Metro A and Metro C light-rail lines and is directly served by several bus routes within the study area.**

If the answer to the question above is yes, then the following subsequent questions should be considered. If the answer to all four questions is no, further analysis is not required, and a less than significant determination can be made.

- Does the project have a Floor Area Ratio less than 0.75?
    - **Project Response: No. The Project has a Floor Area Ratio of 1.591.**
- Does the project provide more parking than required by the County Code?
    - **Project Response: No. The Project's County parking code requirement is 898 parking spaces. The Project is providing 854 parking spaces.**
- Is the project inconsistent with the SCAG RTP/SCS?
    - **Project Response: No. The Project is consistent with the SCAG RTP/SCS. The Project is located within a Transit Priority Area (TPA) as defined by the**

Southern California Association of Government (SCAG), as part of SCAG's 2045 Regional Transportation Plan/Sustainable Communities Strategy.

- Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units?

    - **Project Response: No. The existing site is vacant, with vacant school buildings having been recently demolished. The Project does not replace residential units set aside for lower income households with a smaller number of market-rate residential units.**

Since the project is within ½ mile of an existing major transit stop along an existing high quality transit corridor (in a transit priority area) and the answer is no to all of the above screening questions, **further analysis is not required**, and the project is presumed to cause a **less than significant transportation impact**. Thus, the Project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

The results of this screening criteria evaluation are consistent with results from the County of Los Angeles VMT Tool (version 1.0), included in Appendix A.

Cumulative Impacts

Per cumulative impact methodology, projects that do not demonstrate a project impact by applying an efficiency-based impact threshold (i.e., VMT per capita or VMT per employee) in the project impact analysis, a less than significant project impact conclusion is sufficient in demonstrating there is no cumulative VMT impact. Projects that fall under the County's efficiency-based impact thresholds are already shown to align with the long-term VMT and greenhouse gas reduction goals of SCAG's RTP/SCS. Therefore, the Project would not cause a cumulative significant impact.

GEOMETRIC DESIGN HAZARDS

This section provides a CEQA evaluation of Hazards Due to a Geometric Design Feature. Per the CEQA Appendix G Environmental Checklist, this threshold considers the following question, "*Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?"*

Analysis/Project Impact

A detailed description of the existing bicycle, pedestrian, auto, and public transit network surrounding the Project Site was prepared (as described in Chapter 2). This description provided a detailed review and understanding of these transportation modal networks. Additionally, Chapter 2 provided a review and understanding of the relative auto, bicycle, pedestrian, and public transit activity levels (where available), as well as an understanding of the existing environment and roadway conditions, such as connectivity and proximity to intersections and barriers.

The preliminary Project access plans were reviewed using currently accepted traffic engineering design standards to ascertain whether any deficiencies are apparent in the site access plans that could be considered significant. The following discussion of analysis is presented:

- Access to the Project's parking areas would be provided by 117th Street, 117th Place and 118th Street. Two Project driveways would be located along 117th Street: one on the north side of the street providing access to the Projects' parking structure and one on the south side of the street providing access to the proposed office building's subterranean parking structure. Another two driveways would be located on the south side of 117th Place providing access to the affordable housing parking spaces. Lastly, a driveway would be located along 118th Street also providing access to the affordable housing parking spaces.

- The Project driveways would be designed to ensure no hazardous design features related to vehicle and pedestrian mobility (sharp curves, line of sight obstructions) are included.

- The new driveways will not create sharp curves, sight-distance issues or a dangerous intersection. In addition, the Project driveways would be designed to remain clear of hardscapes, vegetation, or signage that would impede sight lines. Sidewalk treatments across the driveways would be incorporated for increased safety and visibility.

- The driveways would be configured to avoid or minimize potential conflicts with transit services and pedestrian traffic by providing curb and sidewalk to separate pedestrian movements from vehicular movements. The Project design features/physical configurations would not negatively affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists. No deficiencies are apparent and therefore, Project impacts are not considered significant.

- The Project Site is located on a relatively flat parcel with little to no change in vertical elevation. Therefore, no line-of-sight issues would be caused by changes in elevation and drivers would be able to safely identify approaching vehicles, pedestrians, and bicycles at the Project driveways. The Project driveways have been designed to intersect the public right-of-way at as close to a right angle as possible to allow pedestrians and bicyclists to observe vehicles within the driveway.

- No incompatible uses have been identified in the proximity of the Project that would cause a transportation hazard.

- No other conditions, including the presence of incompatible uses in the vicinity that would substantially increase a transportation hazard, have been identified.

Based on a review and consideration of the proposed site plan, the project description and the above analysis, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project **does not cause a significant impact** relative to the CEQA Threshold – Hazards Due to Geometric Design Feature.

Cumulative Impacts

A cumulative impact could occur if the combined effects of the Project and related project(s) with access points proposed along the same block would substantially increase hazards due to a geometric design feature or incompatible uses.

It was observed that there is one related project (Related Project #3) located along the same block, 117th Street, as the proposed Project. A review of the site plans of this related project and the Project was conducted. The Related Project is providing one driveway along the north side of 117th Street east of Compton Avenue. This driveway is located approximately 125 feet from the proposed Project's driveways along 117th Street that it would have no effect of the Project's driveways operations.

It was observed that the combined effects of the related projects and the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project would not cause a cumulative significant impact relative to CEQA Threshold – Hazards Due to Geometric Design.

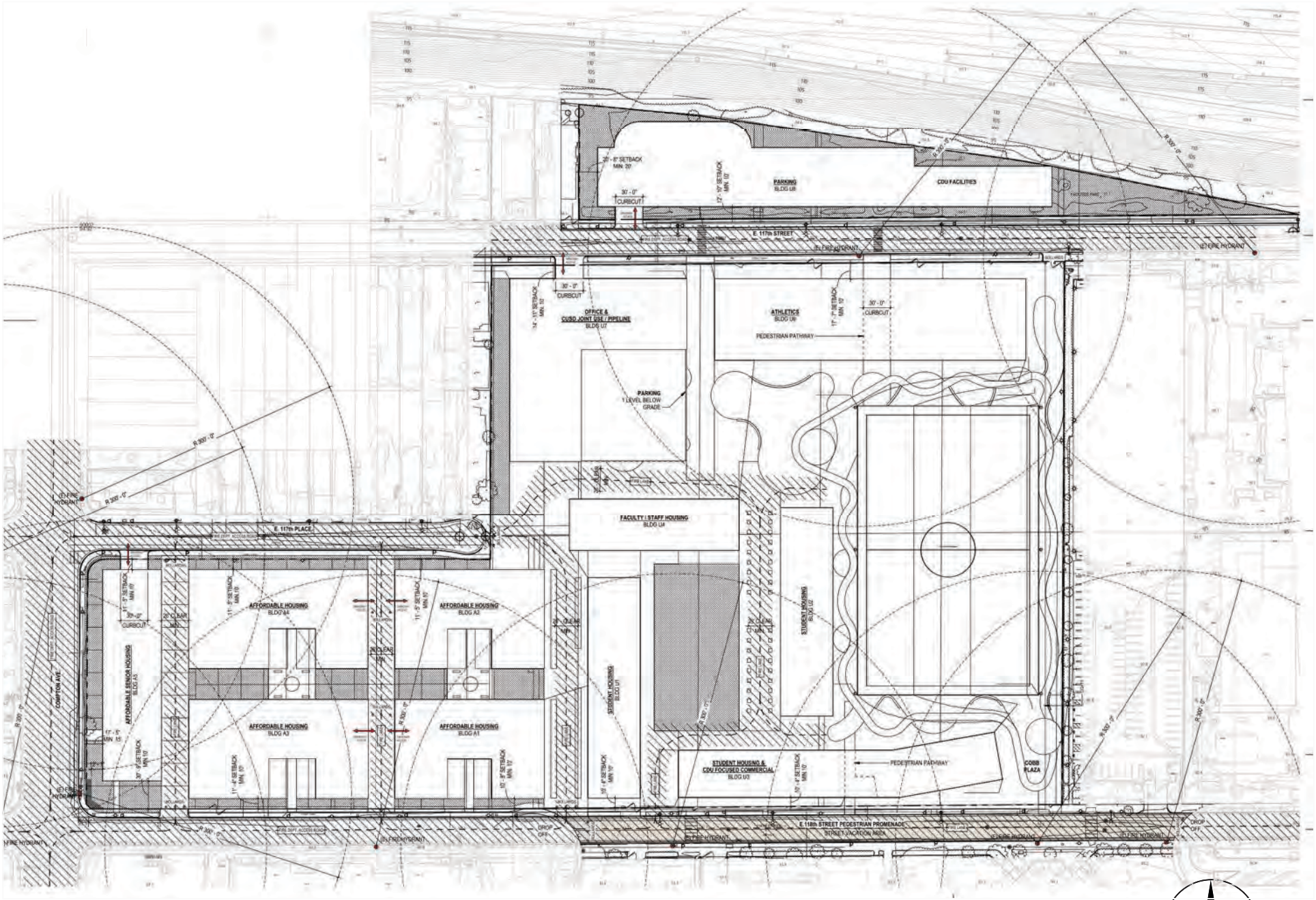
EMERGENCY ACCESS

This section provides a CEQA evaluation of Inadequate Emergency Access. Per the CEQA Appendix G Environmental Checklist, this threshold considers the following question, "*Would the project result in inadequate emergency access?"*

Analysis/Project Impact

Fire access roads for emergency access are proposed within the Project Site that extends from 117th Street to the proposed pedestrian promenade (118th Street), as well as to 117th Place. Fire access roads from 117th Place and along the east side of the proposed affordable housing buildings would also provide access to ground-level parking spaces for affordable housing residents and guests. The fire access plan is shown in Figure 12.

The Project Site is north of the Los Angeles County Fire Department (LACFD) Station 41 and the access to the Martin Luther King Jr. (MLK) Community Hospital emergency department located along 120th Street. Project construction activities would not affect emergency access to these facilities. The Project would develop a construction traffic management plan in coordination with the MLK Community Hospital, LACFD and LACPW to ensure that emergency vehicle access along 118th Street and 120th Street are maintained and that access to LCFD Station 41 and the MLK Medical Campus is not restricted. Therefore, construction and operation of the proposed Project would not result in inadequate emergency access. The Project **does not cause a significant impact** relative to the CEQA Threshold – Emergency Access.



Source: Frederick Fisher and Partners

FIGURE 12
PROJECT FIRE ACCESS SITE PLAN

RAJU Associates, Inc.

IV. LOCAL TRANSPORTATION ANALYSIS

The local transportation analyses associated with the Project have been prepared utilizing the methodologies and assumptions per the latest County of Los Angeles' Transportation Impact Analysis Guidelines. The results have then been used to assess the potential effects of the proposed Project based on evaluation criteria established by the County of Los Angeles. This chapter includes a summary of the screening criteria, evaluation criteria, methodology and recommended corrective actions (if needed) for each evaluation component.

The local transportation analyses consist of assessment of transportation effects for the following City established evaluation criteria for development projects:

- Intersection Operational and Queueing Analysis
- Local Residential Street Cut-Through Analysis
- Additional Site Access Analysis and
- Construction Analysis.

Given the results of the CEQA analysis, this non-CEQA traffic operational analysis is not required per County screening criteria guidelines. Therefore, this analysis is being provided for informational purposes only.

OPERATIONAL AND QUEUEING SCREENING AND EVALATION CRITERIA

This section includes an evaluation of the Project's access and circulation constraints related to the provision of access to and from the Project Site based on the screening criteria and evaluation criteria established in the County's TIAG.

Per the County's TIAG, "*The site access and circulation constraints related to the provision of access to and from the project site may be analyzed as part of the project's environmental review. The analysis should address the site access and circulation needs of vehicles, bicycles and pedestrians. If the operation analysis is determined to be necessary in consultation with Public Works, operational performance may be quantified for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site"*.

Development Projects Screening Criteria

Based on the screening criteria included in the County of Los Angeles' TIAG (Section 4.1.2.1.), if the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect project access and circulation:

- Is the project required to submit a Transportation Impact Analysis?
    - **Project Response: Yes, the Project is required to submit a Transportation Impact Analysis.**
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?
    - **Project Response: Yes, the Project involves a discretionary action**.

The answer is yes to the following questions, further analysis will be required to assess whether the project would negatively affect project access and circulation.

Evaluation Criteria

Operational Deficiencies (TIAG Section 4.1.3.1.). The Transportation Impact Analysis should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing at nearby signalized intersections. Unacceptable or extended queuing may be defined as follows:

- Spill-over from turn pockets into through lanes.
- Spill-over into intersections.

INTERSECTION OPERATIONS ANALYSIS

This section assesses the ability of the circulation system to accommodate the additional vehicular traffic generated by the related projects and the subject project. This evaluation includes intersection level of service (LOS), and queuing analysis.

Methodology

Consistent with the County's TIAG, intersection capacity analysis and queue analysis were conducted using the Highway Capacity Manual, 6th Edition (Transportation Research Board, 2016) (HCM) methodologies for signalized and unsignalized intersections. For this operational evaluation, as stated earlier, 12 locations (9 signalized and 3 unsignalized) were chosen as study intersections. These intersections are listed below including their traffic control type and jurisdiction:

1. Compton Avenue / Imperial Highway: signalized (Los Angeles County/City of Los Angeles)
2. Compton Avenue / 117th Street: unsignalized (Los Angeles County)
3. Compton Avenue / 117th Place: unsignalized (Los Angeles County)
4. Compton Avenue / 118th Street: signalized (Los Angeles County)
5. Compton Avenue / 120th Street: signalized (Los Angeles County)
6. Healthy Way / 120th Street: signalized (Los Angeles County)
7. Holmes Avenue / 118th Street: unsignalized (Los Angeles County)
8. Wilmington Avenue / Imperial Highway Ramps: signalized (Los Angeles County/City of Los Angeles)
9. Wilmington Avenue / I-105 Freeway Eastbound Ramps: signalized (Los Angeles County/Caltrans)
10. Wilmington Avenue / 118th Street: signalized (Los Angeles County)
11. Wilmington Avenue / 119th Street – 120th Street: signalized (Los Angeles County)
12. I-105 Freeway Westbound Ramps – Croesus Avenue / Imperial Highway: signalized (Los Angeles County/City of Los Angeles/Caltrans)

The study intersection locations were analyzed for both morning and evening peak hours for the following conditions:

- **Existing (2023) Conditions** - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes current traffic volumes, and an assessment of the operating conditions at these locations. The evaluation and results of this scenario are presented in Chapter 2 of this report.

- **Future Cumulative (2036) without Project Conditions** - Future "background" year traffic conditions without the proposed Project were developed for the year 2036. The objective of this analysis is to project future traffic operating conditions that could be expected to result from regional changes and related projects in the vicinity of the Project Site by the opening year 2036.

- **Future Cumulative (2036) with Project Conditions** - This traffic scenario includes estimated Project traffic volumes along with the Future Cumulative (2036) without Project traffic volumes and an assessment of operating conditions under Future Cumulative (2036) conditions with the addition of project-generated traffic.

Existing LOS Analysis

The Existing (2023) conditions scenario was evaluated in Chapter 2. The following presents a summary of the resulting level of service conditions at the study intersections under Existing (2023) conditions.

Table 5 summarizes the results of the intersection capacity analysis for existing conditions at the analyzed intersections in the study area. The table indicates the existing average control delay for each intersection approach during the morning and evening peak hours and the corresponding LOS. As indicated in the table, all 12 study intersections are currently operating at LOS D or better during both the morning and evening peak hours under Existing (2023) conditions.

The intersection capacity analysis calculation worksheets for Existing (2023) conditions are provided in Appendix D of the report.

Future Cumulative (2036) without Project Traffic Projections and LOS Analysis

In order to address the non-CEQA assessment on the local street system, per the County's latest guidelines, estimates of the Future Cumulative (2036) – Project Opening Year traffic volumes without the Project were developed. The traffic generated by the Project was estimated and assigned separately to the street system as detailed in section below.

The Future Cumulative (2036) without the Project was first developed including estimates for background growth in area-wide trip making and trips generated by future background development (related projects) in the vicinity of the study area. The Future Cumulative (2036) without Project traffic represents the cumulative base conditions.

The Future Cumulative (2036) without Project (Base) traffic projections reflect growth in traffic from two primary sources: Firstly, the background or ambient growth to reflect the effects of overall area-wide regional growth both within and outside the study area; and secondly, from traffic generated by specific related (cumulative) projects located within, or in the vicinity of, the study area. Each of these components is described below.

Area-wide Ambient Traffic Growth – The traffic in the vicinity of the study area was estimated to increase at a rate of about 0.24% per year per the approved County of Los Angeles Transportation Assessment Scoping Document. The growth rate is based on the *Los Angeles County Metropolitan*

TABLE 5
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Peak Hour	Existing (2023) Conditions		Future Cumulative (2036) without Project Conditions		Future Cumulative (2036) with Project Conditions	
			Delay	LOS	Delay	LOS	Delay	LOS
1.	Compton Avenue & Imperial Highway	AM PM	22.8 26.7	C C	23.6 28.6	C C	24.8 32.9	C C
2.	Compton Avenue & 117th Street [1]	AM PM	18.3 11.9	C B	20.3 12.2	C B	34.8 15.7	D C
3.	Compton Avenue & 117th Place [1]	AM PM	15.0 11.2	B B	16.1 11.3	C B	16.8 13.0	C B
4.	Compton Avenue & 118th Street	AM PM	7.7 6.4	A A	7.9 6.9	A A	6.1 4.0	A A
5.	Compton Avenue & 120th Street	AM PM	16.6 16.2	B B	17.6 16.7	B B	19.2 17.5	B B
6.	Health Way & 120th Street	AM PM	9.0 10.6	A B	9.0 10.7	A B	9.2 10.7	A B
7.	Holmes Avenue & 118th Street [1]	AM PM	10.8 10.0	B A	11.3 10.4	B B	10.8 11.0	B B
8.	Wilmington Avenue & Imperial Highway Ramps	AM PM	21.8 37.5	C D	22.1 38.7	C D	22.7 41.0	C D
9.	Wilmington Avenue & I-105 Freeway Eastbound Ramps	AM PM	30.2 18.3	C B	33.0 19.1	C B	33.9 19.7	C B
10.	Wilmington Avenue & 118th Street	AM PM	14.9 20.5	B C	15.4 21.2	B C	14.9 22.0	B C
11.	Wilmington Avenue & 119th Street-120th Street	AM PM	21.5 19.7	C B	22.4 20.2	C C	27.1 22.2	C C
12.	I-105 Freeway Westbound Ramps-Croesus Avenue & Imperial Highway	AM PM	48.9 50.1	D D	51.2 53.4	D D	54.6 54.6	D D

Delay - Based on HCM methodology in seconds per vehicle
LOS - Level of Service
[1] Unsignalized intersection. Stop controlled on minor approach. Worst case approach delay is reported in table.

Transportation Authority 2010 Congestion Management Program (CMP). Based on the CMP, the Project lies within Regional Statistical Area (RSA) 21 which has a growth rate of 0.24% per year per *Exhibit D1 – General Traffic Volume Growth Factors* included in Appendix E**.** Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate. With the assumed completion date of 2036, the Existing (2023) traffic volumes were adjusted upward by a factor of 3.12% (Y2036-Y2023 = 13 years * 0.24% = 3.12%) to reflect a 13-year area-wide regional growth. The resulting Existing with Ambient Growth (2036) traffic volumes are illustrated in Figure 13.

Related Projects Traffic Generation and Assignment - The second potential source of traffic growth in the study area is that expected from other future development projects in the vicinity. These related or "cumulative" projects are those that are planned and expected to be in place within the same timeframe as the Project. Per County's TIAG*,* selection of related projects information should include development projects that are within one-half mile (2,640-foot) radius of the farthest outlying study intersections.

Data describing related projects in the area was obtained from the County of Los Angeles, the City of Los Angeles and other online sources. Thirteen (13) related projects were identified within the study area and are listed in Table 6. The locations of these projects are shown in Figure 14. There were no related projects within one-half mile identified in the neighboring cities of Compton and Lynwood.

The trip generation estimates for the related projects were based on different sources including trip generation estimates provided by the City of Los Angeles Department of Transportation, approved related projects' traffic studies, and trip generation rates contained in the ITE's *Trip Generation Manual*, 11th Edition. The trip generation estimates for the related projects are shown in Table 6. As summarized in Table 6, the related projects are expected to generate approximately 118 trips during the morning peak hour and 126 trips during the evening peak hour.

Future Cumulative (2036) without Project Traffic Volumes and LOS Analysis

Figure 15 illustrates the related projects traffic volume estimates. These related projects' traffic estimates were added to the Existing with Ambient Growth (2036) traffic to obtain the Future Cumulative (2036) without Project traffic volumes. Figure 16 provides the Future Cumulative (2036) without Project traffic volumes at each of the analysis intersections during both AM and PM peak hours. These volumes represent Future Cumulative (2036) without Project conditions.

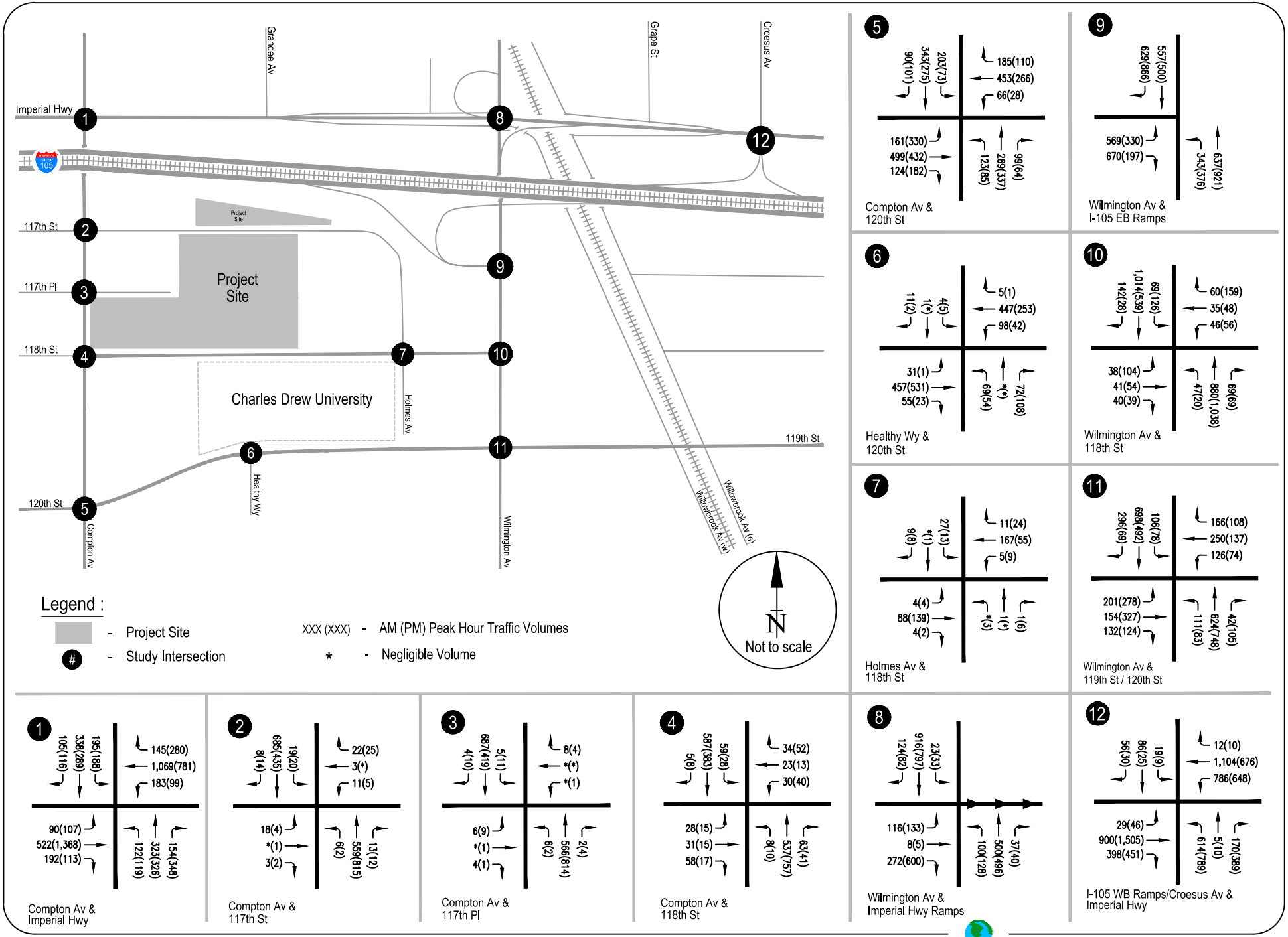


FIGURE 13
EXISTING WITH AMBIENT GROWTH (2036) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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TABLE 6
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour			PM Peak Hour		
					IN	OUT	TOTAL	IN	OUT	TOTAL
County of Los Angeles [1]										
1	Residential Project	2454 E. 115th Place	Construction of a new duplex and 4 car garage.	13	0	1	1	1	0	1
2	Residential Project	2436 E. 115th Place	Construction of a new duplex and 3 car garage.	13	0	1	1	1	0	1
3	Residential Project	1601 E. 117th Street / 11668 Compton Avenue	Construction of a 100-unit 4-story multifamily rental building. Six (6) units will be restricted to rents affordable to Very Low Income (VLI) Households.	410	8	26	34	23	14	37
4	Residential Project	1633 E. 117th Place	Demolish existing single family dwelling and construct 4-story residential apartment building with 14 units, which include 4 VLI units.	55	2	3	5	2	3	5
5	Residential Project	2032 E. 119th Street	Construction of 9 Single-Family Residential (SFR) units and 2 ADUs, replacing existing 1 SFR.	89	2	4	6	5	3	8
6	Residential Project	2223 E. 119th Street	Construction of three SFR dwelling units and one duplex.	41	1	2	3	3	1	4
7	Charles R. Drew University New Health Professions Education Building [2]	1731 E. 120th Street	The proposed project involves demolishing the existing two modular buildings (9,628 square feet), and constructing a five-story, 92,618 square-foot Health Professions Building.	299	22	6	28	10	19	29
8	Residential Project	11649 Antwerp Avenue	Construction of a new 3-story SFR and new 3-story duplex.	16	0	1	1	2	0	2
9	Residential Project	11653 Antwerp Avenue	Construction of a 3-story duplex (front), 3-story duplex (middle) and 2-story two ADU (rear).	40	0	2	2	2	1	3
10	Residential Project	12600/12630 S. Compton Avenue	The addition of 6 affordable units (3 duplexes) and new community center building to existing 40-unit apartment complex.	29	1	2	3	2	1	3
11	Residential Project	11909 S. Willowbrook Avenue	Construction of a one-story, seven (7) unit affordable multifamily building.	47	1	2	3	3	1	4
12	Residential Project	12503 S. Willowbrook Avenue	Construction of three multifamily dwelling units.	20	0	1	1	1	1	2
City of Los Angeles [3]										
13	Residential Project	11840 S. Central Avenue	Construction of 70 affordable dwelling units, replacing two duplexes.	279	9	21	30	16	11	27
			RELATED PROJECTS TRIP GENERATION TOTAL	1,351	46	72	118	71	55	126

* Includes related projects approximately 0.5 miles from the farthest outlying study intersection.

**Trip generation based on *Trip Generation Manual*, 11th Edition, ITE 2021, unless otherwise noted.

[1] Related projects obtained from County of Los Angeles Regional Planning, September 2023.

[2] Trip generation estimates from *Initial Study for Charles R. Drew University of Medicine and Science Health Professions Education Building* , Terry A. Hayes Associates, September 2022.

[3] Source: City of Los Angeles Department of Transportation, September 2023; Urbanize LA website, September 2023.



FIGURE 14
LOCATION OF RELATED PROJECTS

RAJU Associates, Inc.

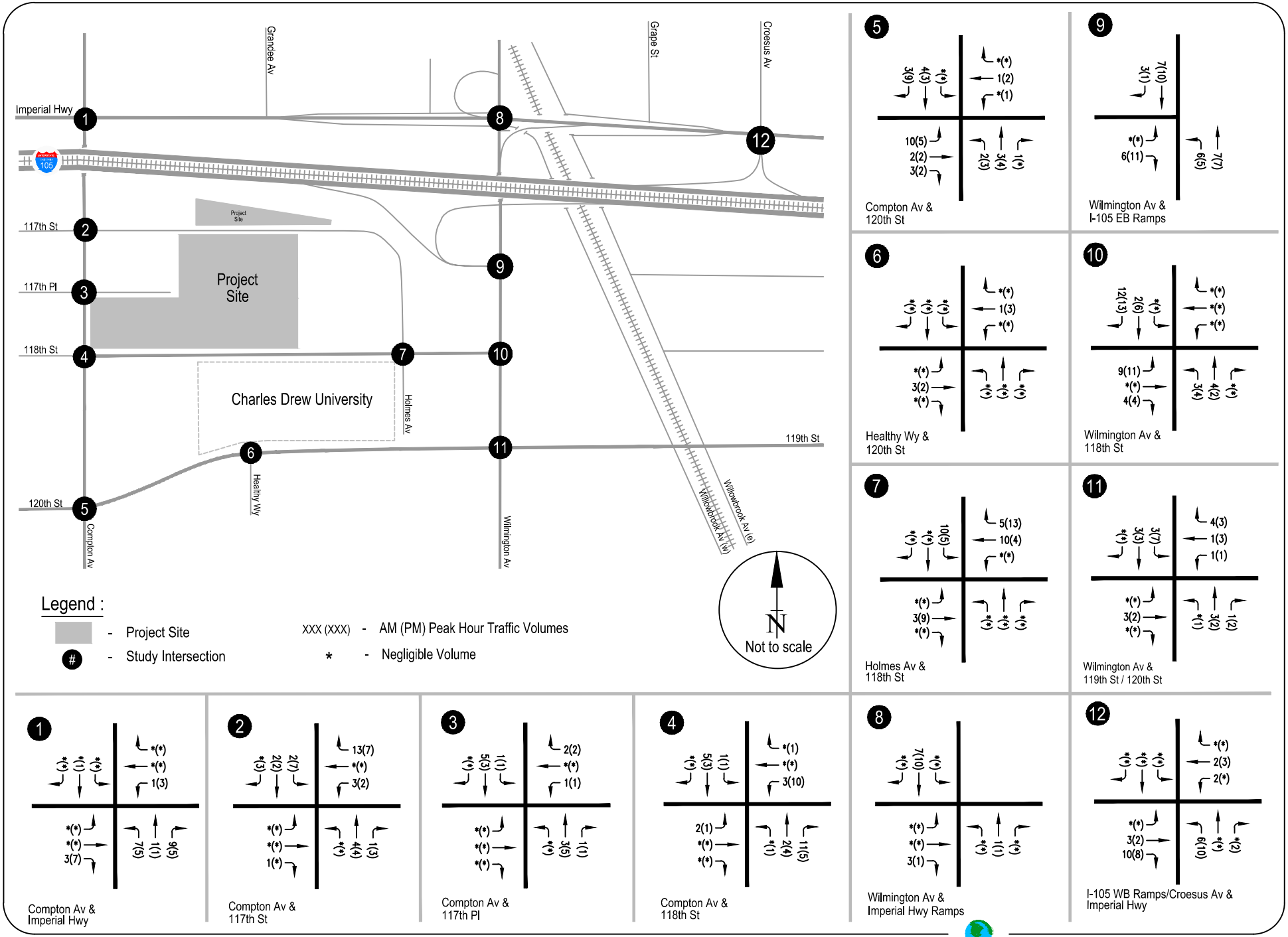


FIGURE 15
RELATED PROJECTS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

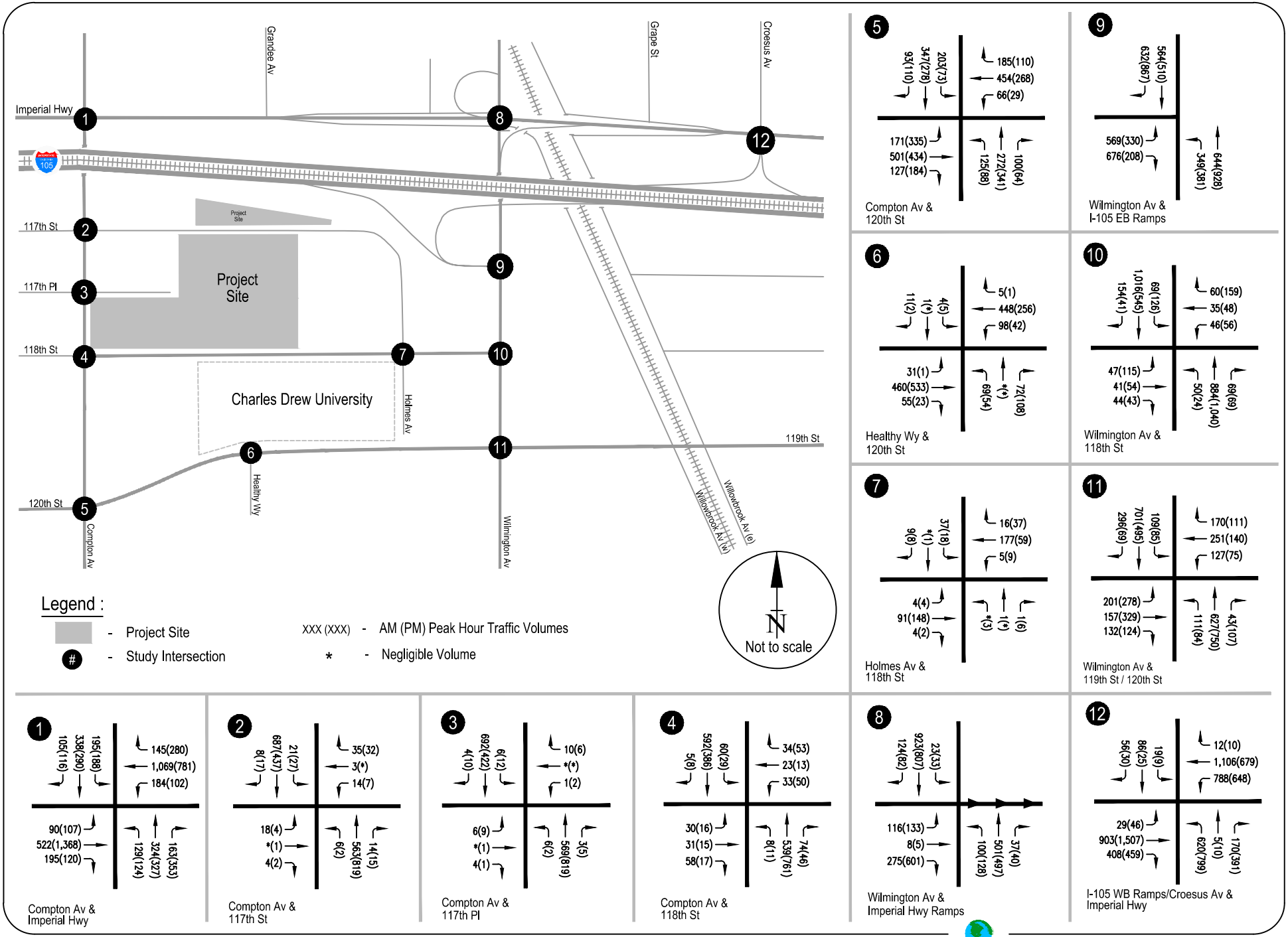


FIGURE 16
CUMULATIVE (2036) WITHOUT PROJECT - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

The Future Cumulative (2036) without Project traffic volumes, presented in Figure 16, were analyzed to determine the intersection LOS and delay for each intersection. Table 5 also presents the results of the operational analysis at the study intersections for Future Cumulative (2036) without Project conditions. As indicated in Table 5, all 12 study intersections are projected to continue to operate at LOS D or better during both the morning and evening peak hours.

The operational analysis worksheets for Future Cumulative Year (2036) without Project conditions are provided in Appendix D of the report.

Project Traffic Volumes

The development of traffic generation estimates for the Project involves the use of a three-step process: trip generation, trip distribution and traffic assignment.

Project Trip Generation - Implementation of the Project consists of university related uses including 250 student housing dwelling units, 55 faculty/staff dwelling units, 200 affordable dwelling units, 54 senior affordable dwelling units, 116,000 square feet of office use (including 5,000 square feet of university-oriented community space), 11,500 square feet of facilities/services use, 10,270 square feet of university-oriented retail use and 48,100 square feet of athletic use and university-oriented community space including one soccer field. The existing site contains vacant buildings which will be demolished. No credit was taken for the existing building since it has been vacant over two years. The Project is anticipated to be completed in the Year 2036.

The Project also proposes the vacation and conversion of a portion of 118th Street along the majority of the southern frontage of the Project Site from right-of-way that permits vehicular travel to a right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel.

Utilizing the ITE's *Trip Generation Manual*, 11th Edition trip rates, the Project's peak hour trip generation was determined. Table 7 presents details of the Project's trip generation including type of use, size, applicable rate and trip generation estimates. Other calculations within the table also provide for trip generation reductions from transit trips and internal capture trips.

Transit Trip Credit - The Project Site is located less than a quarter mile from bus stops located along Wilmington Avenue, Compton Avenue and 120th Street. Additionally, the Project is located

TABLE 7
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Affordable Housing - Family	200 d.u.	962	29	71	100	54	38	92
The Project includes four, 4-story buildings with a total of 200 affordable housing units.	*Transit Trips (10%)*	(96)	(3)	(7)	(10)	(5)	(4)	(9)
	subtotal	866	26	64	90	49	34	83
Affordable Housing - Senior	54 d.u.	175	6	4	10	3	2	5
The Project includes one, 4-story building with a total of 54 affordable senior housing units.	*Transit Trips (10%)*	(18)	(1)	0	(1)	0	0	0
	subtotal	157	5	4	9	3	2	5
Student Housing (250 d.u.)	426 bedrooms	1,095	14	16	30	42	47	89
The Project includes three, 5-story buildings with 250 student housing dwelling units containing 426 bedrooms.	*Transit Trips (10%)*	(110)	(1)	(2)	(3)	(4)	(5)	(9)
	subtotal	985	13	14	27	38	42	80
Multifamily - Faculty/Staff Housing	55 d.u.	250	5	15	20	13	8	21
The Project includes one, 5-story building with 55 housing units that are classified as faculty/staff housing.	*Transit Trips (10%)*	(25)	0	(2)	(2)	(1)	(1)	(2)
	subtotal	225	5	13	18	12	7	19
Office [1]	116,000 s.f.	1,257	155	21	176	28	139	167
The Project includes a 5-story building with 116,000 s.f. of office use and 5,000 s.f. of community space on the ground floor.	*Transit Trips (10%)*	(126)	(16)	(2)	(18)	(3)	(14)	(17)
	subtotal	1,131	139	19	158	25	125	150
Retail (University Oriented)	10,270 s.f.	559	15	9	24	34	34	68
The ground floor of the student housing building would include 10,270 square feet of university-oriented retail. This retail use would function as a student store.	* *Internal Capture (90%)* [2]	(453)	(12)	(7)	(19)	(28)	(27)	(55)
	subtotal	50	2	1	3	3	3	6
Community Center/Athletic Facilities	48,100 s.f.	1,386	61	31	92	57	63	120
The Project includes a 43,100 s.f. athletics facilities containing a swimming pool, basketball court, exercise rooms, run/walk path, and support facilities.	*Transit Trips (10%)*	(139)	(6)	(3)	(9)	(6)	(6)	(12)
	* *Internal Capture (90%)* [3]	(1,123)	(50)	(25)	(75)	(46)	(51)	(97)
	subtotal	124	5	3	8	5	6	11
The ground floor of the student housing building would include 5,000 s.f. university-oriented community center.								
Soccer Field	1 field	71	1	0	1	11	5	16
The Project includes a regulation soccer field with dimensions of 100 yards by 60 yards.	*Transit Trips (10%)*	(7)	0	0	0	(1)	(1)	(2)
	subtotal	64	1	0	1	10	4	14
Facilities/Services [4]	11,500 s.f.	-	-	-	-	-	-	-
Project Net Trip Generation Total		**3,602**	**196**	**118**	**314**	**145**	**223**	**368**
Trip Rates [5]								
Student Housing (ITE Land Use 226)	Trips per bedroom	2.57	46%	54%	0.07	47%	53%	0.21
Multifamily Mid-Rise (ITE Land Use 221)	Trips per d.u.	4.54	23%	77%	0.37	61%	39%	0.39
Affordable Housing - Family (ITE 223)	Trips per d.u.	4.81	29%	71%	0.50	59%	41%	0.46
Affordable Housing - Senior (ITE Land Use 223) [6]	Trips per d.u.	3.24	58%	42%	0.18	61%	39%	0.09
Soccer Field (ITE Land Use 488)	Trips per field	71.33	61%	39%	0.99	66%	34%	16.43
Recreational Community Center (ITE Land Use 495)	Trips per 1,000 s.f.	28.82	66%	34%	1.91	47%	53%	2.50
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	10.84	88%	12%	1.52	17%	83%	1.44
Retail <40 ksf (ITE Land Use 822)	Trips per 1,000 s.f.	54.45	60%	40%	2.36	50%	50%	6.59

* Internal capture trips determined after reduction of transit/walk trips.

[1] The office building also include 5,000 square feet of community space. This community space would contain the University's existing Pipeline Program offices, gathering space and storage, currently located within the existing campus. This existing use is proposed to move to a new location within the ground level of the proposed office building. No new trips are anticipated.

[2] The university-oriented retail would serve the needs of students living within the student housing buildings, and also the wider Charles R. Drew University campus student, staff, and faculty needs. Minimal outside patrons are anticipated. Only employee trips would be external. Therefore, an internal capture of 90% was utilized for retail use, assuming that they would be walking to the university-oriented retail use.

[3] The 5,000 square-foot university-oriented community space in the student housing building is anticipated to be a space for student gatherings and events, similar to those that currently occur on-site. Minimal outside patrons are anticipated. Therefore, an internal capture of 90% was utilized for this use, assuming that they would all be walking/biking to the university-oriented community use. Additionally, the facilities within the athletics building would be primarily for use by Charles R. Drew University students, staff, faculty and their guests. Outside patrons are not anticipated during typical weekday peak hour operations. Therefore, an internal capture of 90% was utilized for this use, since the patrons of this use are already on campus and they would be walking/biking to this use.

[4] Existing facilities/services building is proposed to move to new location within Project site and would generate minimal trips.

[5] *Trip Generation Manual* , 11th Edition, ITE 2021, unless otherwise noted.

[6] ITE *Trip Generation Manual* does not provide a daily trip generation rate for this use. Therefore, conservatively, Senior Housing (ITE Land Use 252) daily trip generation rate was utilized to determine the daily trips for this use.

approximately 2,000 feet from both the Metro Imperial/Wilmington Blue/Green Station and the Willowbrook/Rosa Parks Station. Therefore, a conservative transit trip credit of 10% was taken. This is consistent with the transit trip credits offered by other nearby jurisdictions.

Internal Capture Credit - The university-oriented retail would serve the needs of students living within the student housing buildings, and also the wider Charles R. Drew University campus student, staff, and faculty needs including café, bookstore, coffee shop, student study areas, media center or other similar uses. This retail use would function as a student store. Minimal outside patrons are anticipated. Only employee trips would be external. Therefore, an internal capture of 90% was utilized for retail use, assuming that they would use alternative modes of travel such as walking/biking to the university-oriented retail use.

The 5,000 square-foot university-oriented community space in the student housing building is anticipated to be a space for student gatherings and events. Minimal outside patrons are anticipated. Therefore, an internal capture of 90% was utilized for this use, assuming that they would all be walking to the university-oriented community use.

The other 5,000 square-foot community space is located in the five-story office building. This community space would contain the University's existing Pipeline Program offices, gathering space and storage, which is currently located within the existing campus. The Pipeline Programs include Science, Technology, Engineering and Mathematics (STEM) programs. This existing use is proposed to move to a new location within the ground level of the proposed office building. Therefore, no new trips are anticipated for this use.

Additionally, the facilities within the athletics building (approximately 43,100 square feet) would be primarily for use by Charles R. Drew University students, staff, faculty and their guests. Thus, outside patrons are not anticipated during typical weekday morning and evening peak hour operations. Therefore, an internal capture of 90% was utilized for this use, since the patrons of this use are already on campus and they would be walking/biking to this use.

Resulting Project Trip Generation Estimates - From Table 7, it can be observed that the Project's trip generation would result in a net total of approximately 3,602 daily trips of which 314 trips would occur during the morning peak hour and 368 trips would occur during the evening peak hour. These trip generation estimates are also provided in the County DPW-approved Scoping Document.

Project Trip Distribution - The geographic distribution for Project trips (also included in the approved Scoping Document) was determined using the methodology described in *Appendix D of the 2010 CMP* as well as existing traffic patterns and engineering judgment. Intersection level trip distribution percentages are shown in Figures 17A-17D for affordable housing, student and faculty housing, office use and university-related uses (athletic facilities, retail and community uses), respectively.

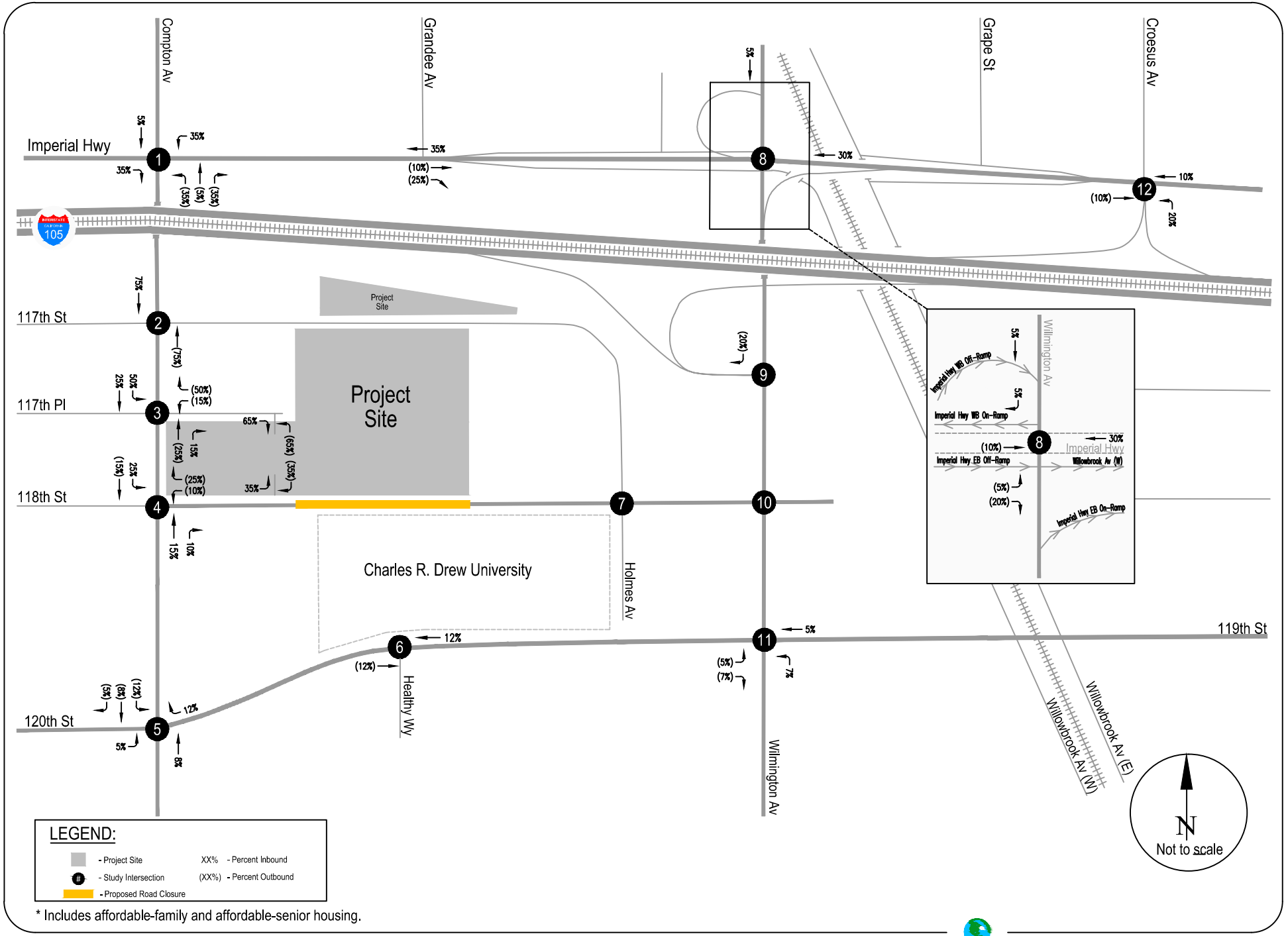
Project Peak Hour Traffic Volumes - Based on the trip distribution assumptions, location and points of access of the Project driveways, and trip generation estimates from the Project, traffic estimates of Project-only trips were developed. The resulting Project-only peak hour trips are presented in Figures 18A-18D. The overall Project-only peak hour traffic volumes are shown in Figure 19. The Project's peak hour traffic volumes are also included in the County DPW-approved Scoping Document.

Traffic Volume Shifts due to Proposed 118th Street Closure - As indicated earlier, the Project proposes the vacation and closure of a portion of 118th Street along the majority of the southern frontage of the Project Site. This section of 118th Street would be closed to vehicular traffic with the exception of emergency vehicles. This closure would result in the diversion of existing traffic currently utilizing 118th Street. The majority of users utilizing 118th Street include CDU students and staff accessing the CDU parking structure and surface parking lot along 118th Street, on-street parking users, and east-west traffic between Compton Avenue and Wilmington Avenue. Other uses along 118th Street include residential uses, CDU Research Center, CDU Child Development Center and the Los Angeles County Department of Public Health parking lot. The resulting morning and evening peak hour traffic diversions are shown in Figure 20. Individual traffic diversion patterns are included in Appendix F.

Future Cumulative (2036) with Project Traffic Projections and LOS Analysis

Utilizing the Project-only traffic estimates and 118th Street closure diversions developed for both AM and PM peak hours, traffic forecasts for the Future Cumulative (2036) with Project conditions were developed. The Future Cumulative (2036) without Project traffic forecasts were combined with the Project-only traffic volumes and traffic volume diversions due to 118th Street closure to obtain the Future with Project traffic volume forecasts. The Future Cumulative (2036) with Project traffic volumes during both AM and PM peak hours are presented in Figure 21.

The Future Cumulative (2036) with Project traffic volumes, presented in Figure 21, were analyzed to determine the intersection LOS and delay for each intersection. Table 5 presents the results of the operational analysis at the study intersections for Future Cumulative (2036) with Project conditions. As summarized in Table 5, Future Cumulative (2036) with Project conditions analysis indicates the Project's traffic and 118th Street closure do not change the levels of service at any of



* Includes affordable-family and affordable-senior housing.

FIGURE 17A
PROJECT TRIP DISTRIBUTION - AFFORDABLE HOUSING

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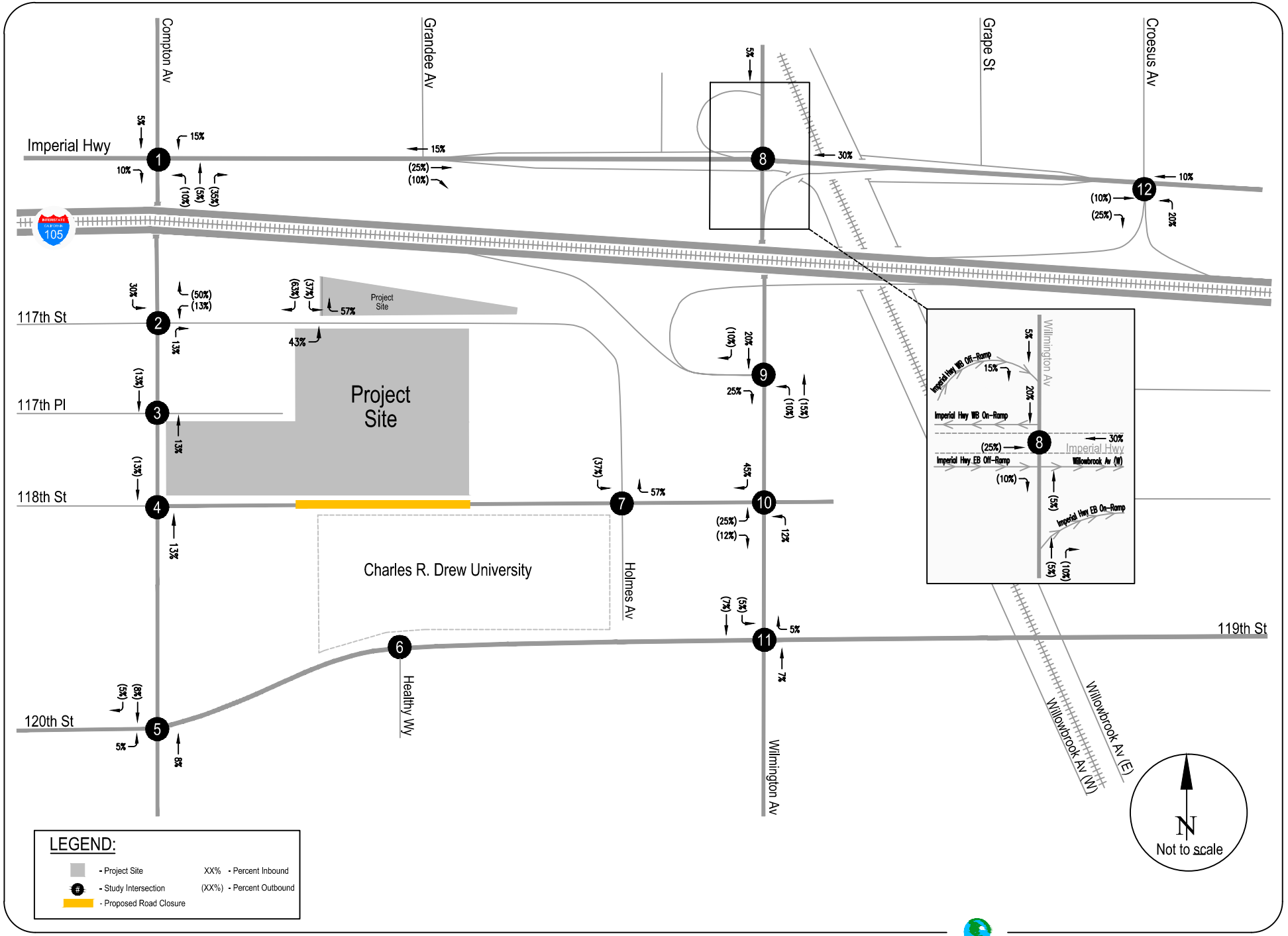

FIGURE 17B
PROJECT TRIP DISTRIBUTION - STUDENT AND MULTIFAMILY - FACILITY / STAFF HOUSING

RAJU Associates, Inc.

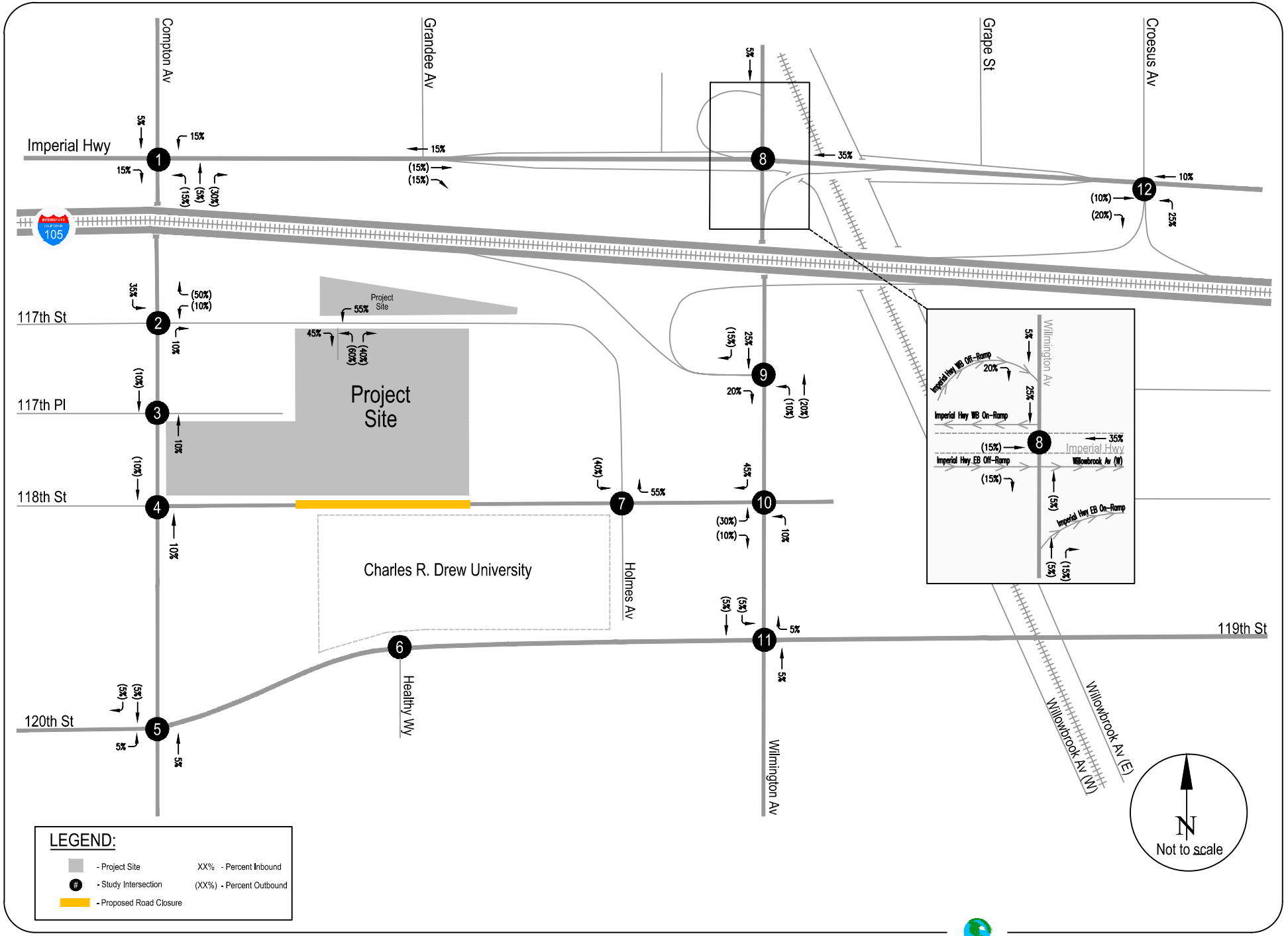

FIGURE 17C
PROJECT TRIP DISTRIBUTION - OFFICE USE

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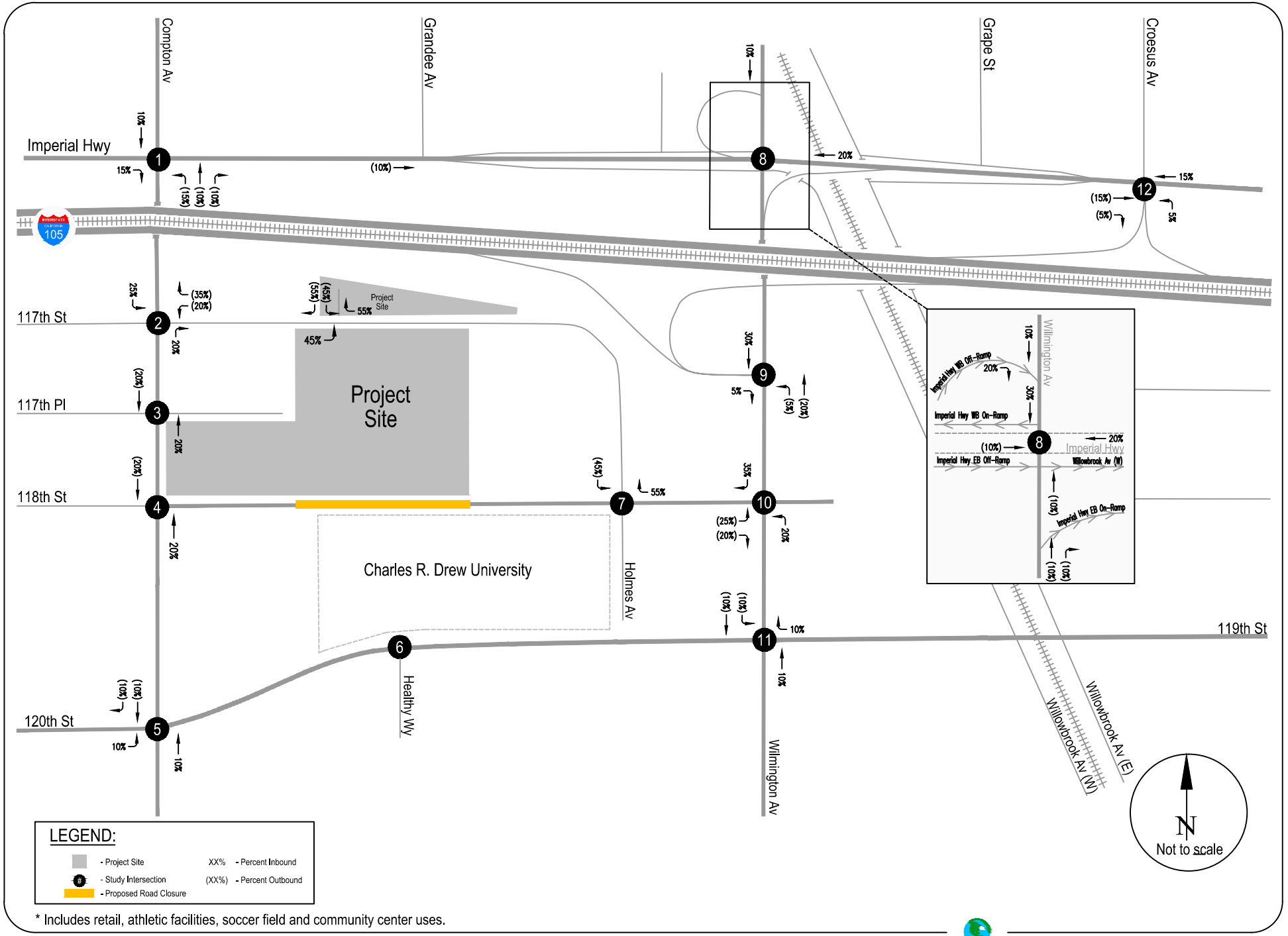
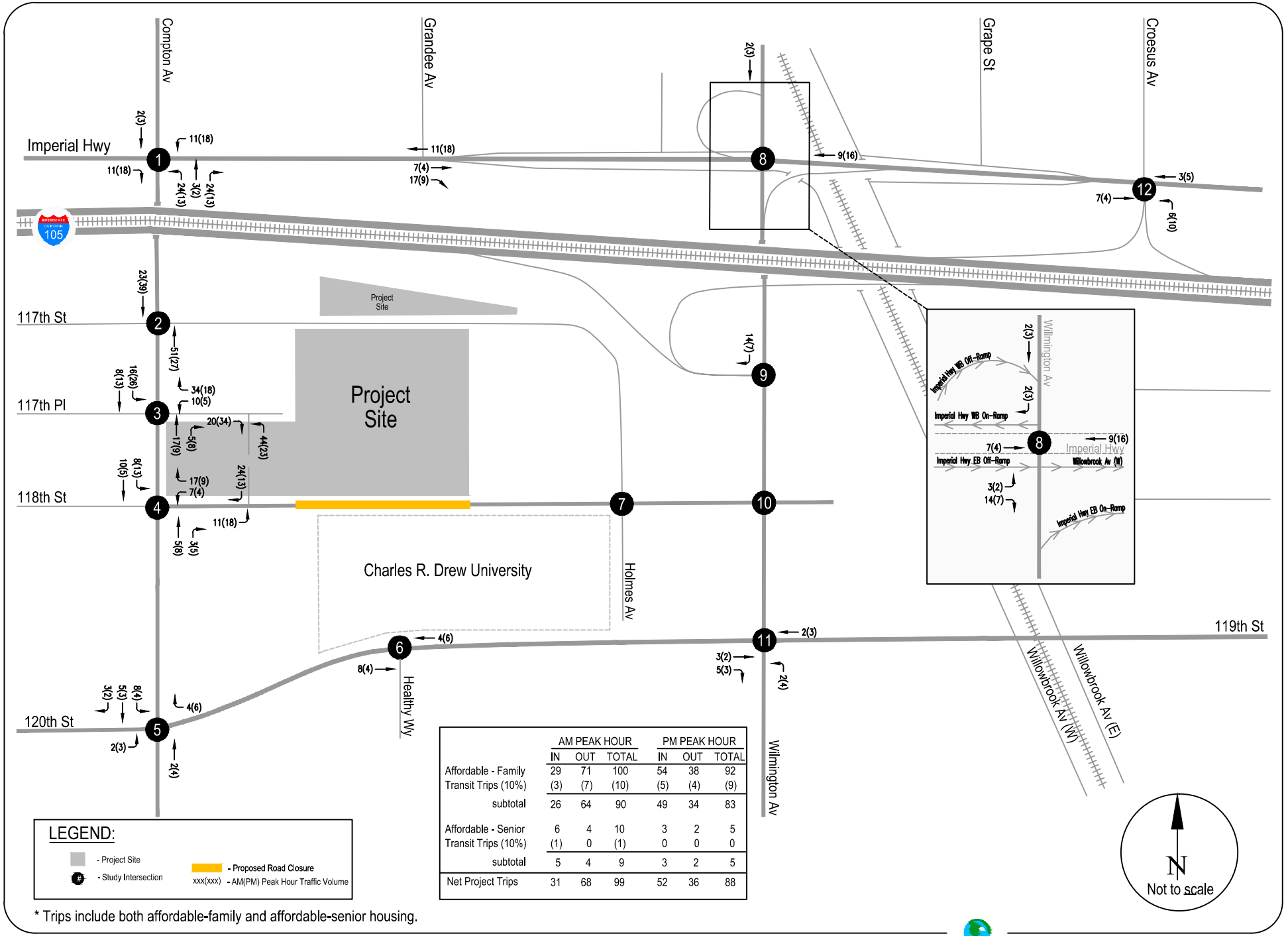


* Includes retail, athletic facilities, soccer field and community center uses.

FIGURE 17D
PROJECT TRIP DISTRIBUTION - UNIVERSITY RELATED USE

RAJU Associates, Inc.



	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Affordable - Family	29	71	100	54	38	92
Transit Trips (10%)	(3)	(7)	(10)	(5)	(4)	(9)
subtotal	26	64	90	49	34	83
Affordable - Senior	6	4	10	3	2	5
Transit Trips (10%)	(1)	0	(1)	0	0	0
subtotal	5	4	9	3	2	5
Net Project Trips	31	68	99	52	36	88

* Trips include both affordable-family and affordable-senior housing.

FIGURE 18A
AFFORDABLE HOUSING PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

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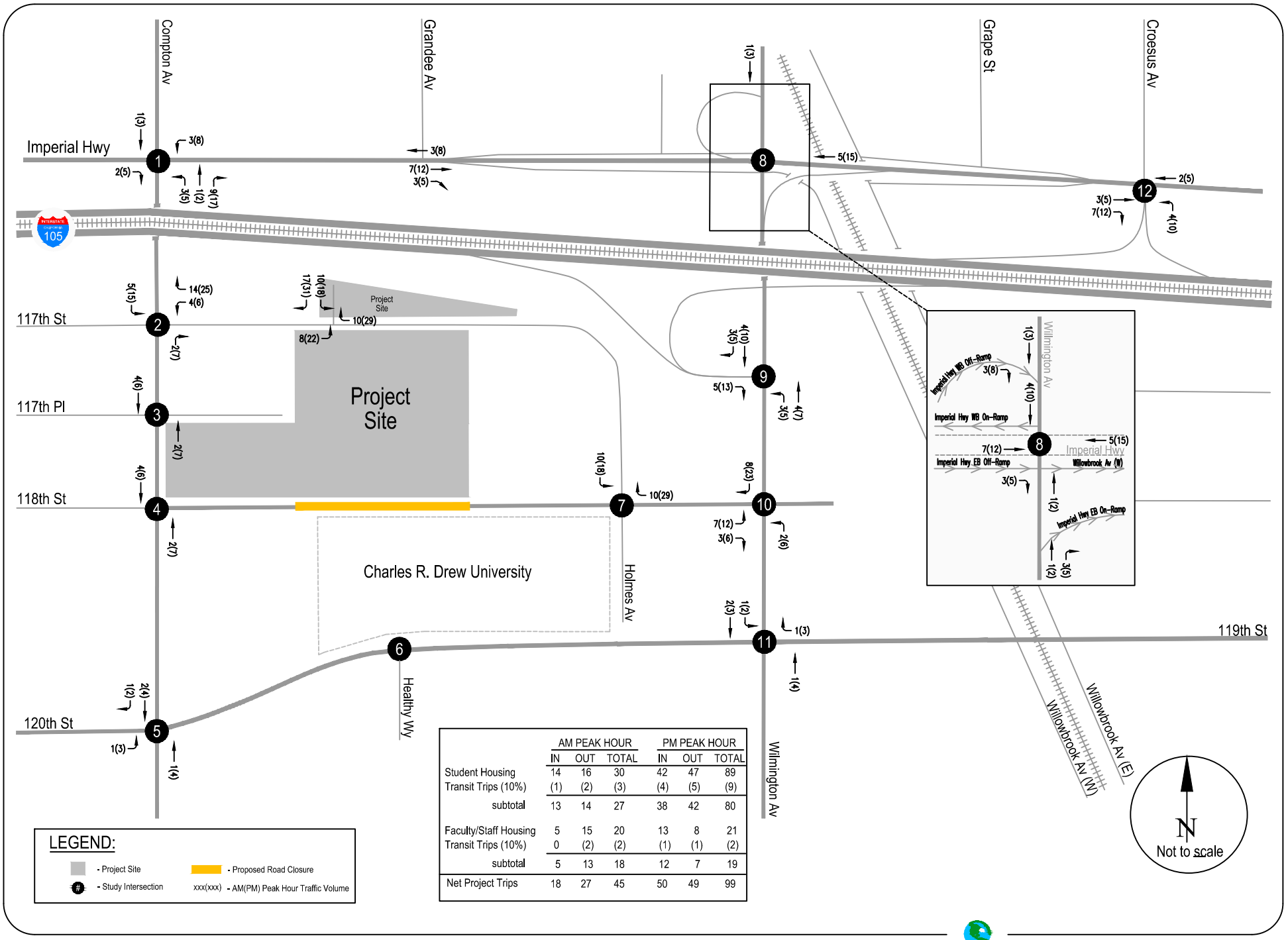
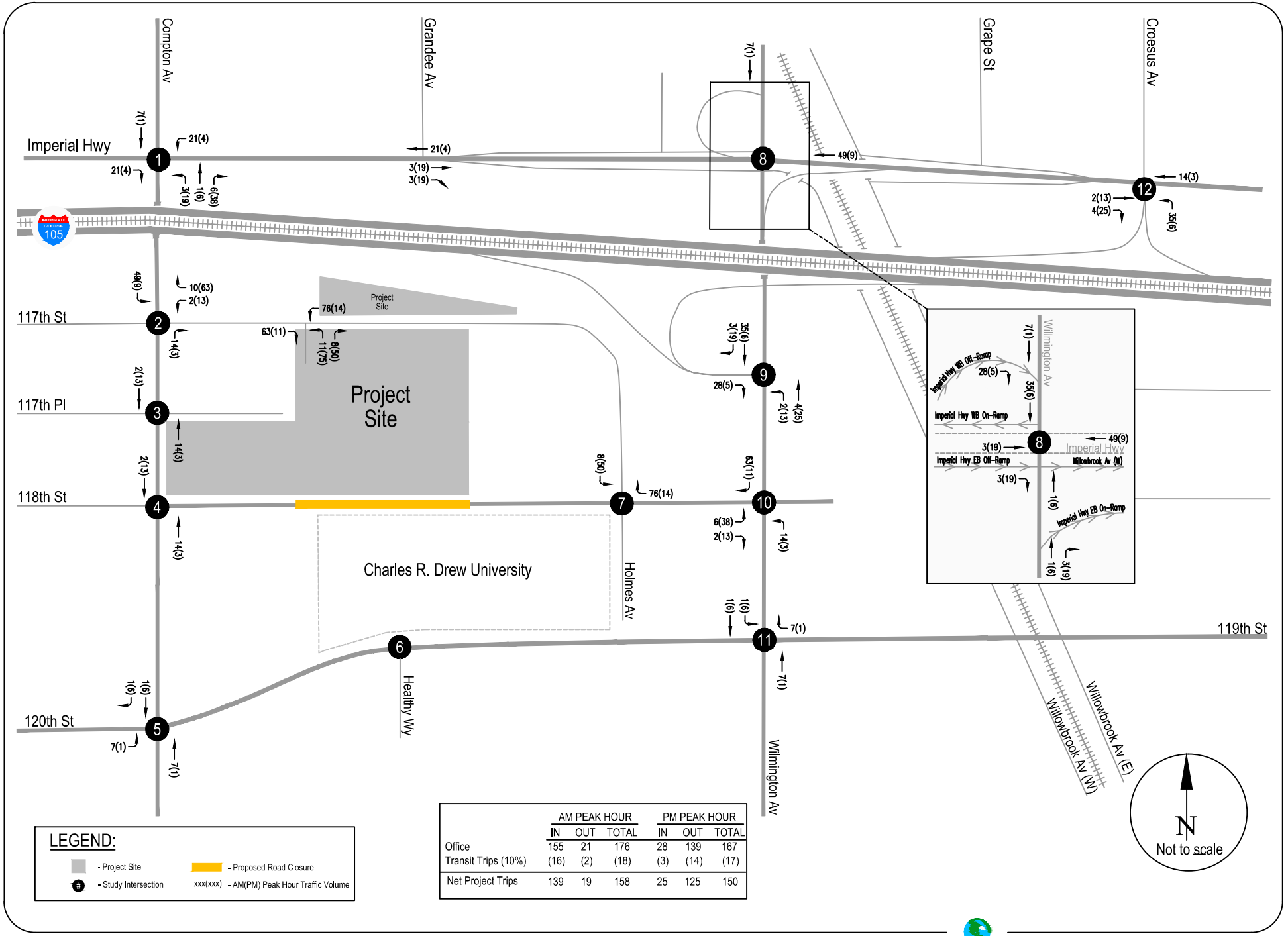


	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Student Housing	14	16	30	42	47	89
Transit Trips (10%)	(1)	(2)	(3)	(4)	(5)	(9)
subtotal	13	14	27	38	42	80
Faculty/Staff Housing	5	15	20	13	8	21
Transit Trips (10%)	0	(2)	(2)	(1)	(1)	(2)
subtotal	5	13	18	12	7	19
Net Project Trips	18	27	45	50	49	99

LEGEND:
- Project Site
- Proposed Road Closure
- # - Study Intersection
- xxx(xxx) - AM(PM) Peak Hour Traffic Volume

FIUGRE 18B
STUDENT AND MULTIFAMILY - FACULTY/STAFF HOUSING PROJECT ONLY TRIPS
- PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.



LEGEND:

- Project Site
- Study Intersection
- Proposed Road Closure
- xxx(xxx) - AM(PM) Peak Hour Traffic Volume

	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Office	155	21	176	28	139	167
Transit Trips (10%)	(16)	(2)	(18)	(3)	(14)	(17)
Net Project Trips	139	19	158	25	125	150

FIGURE 18C
OFFICE PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

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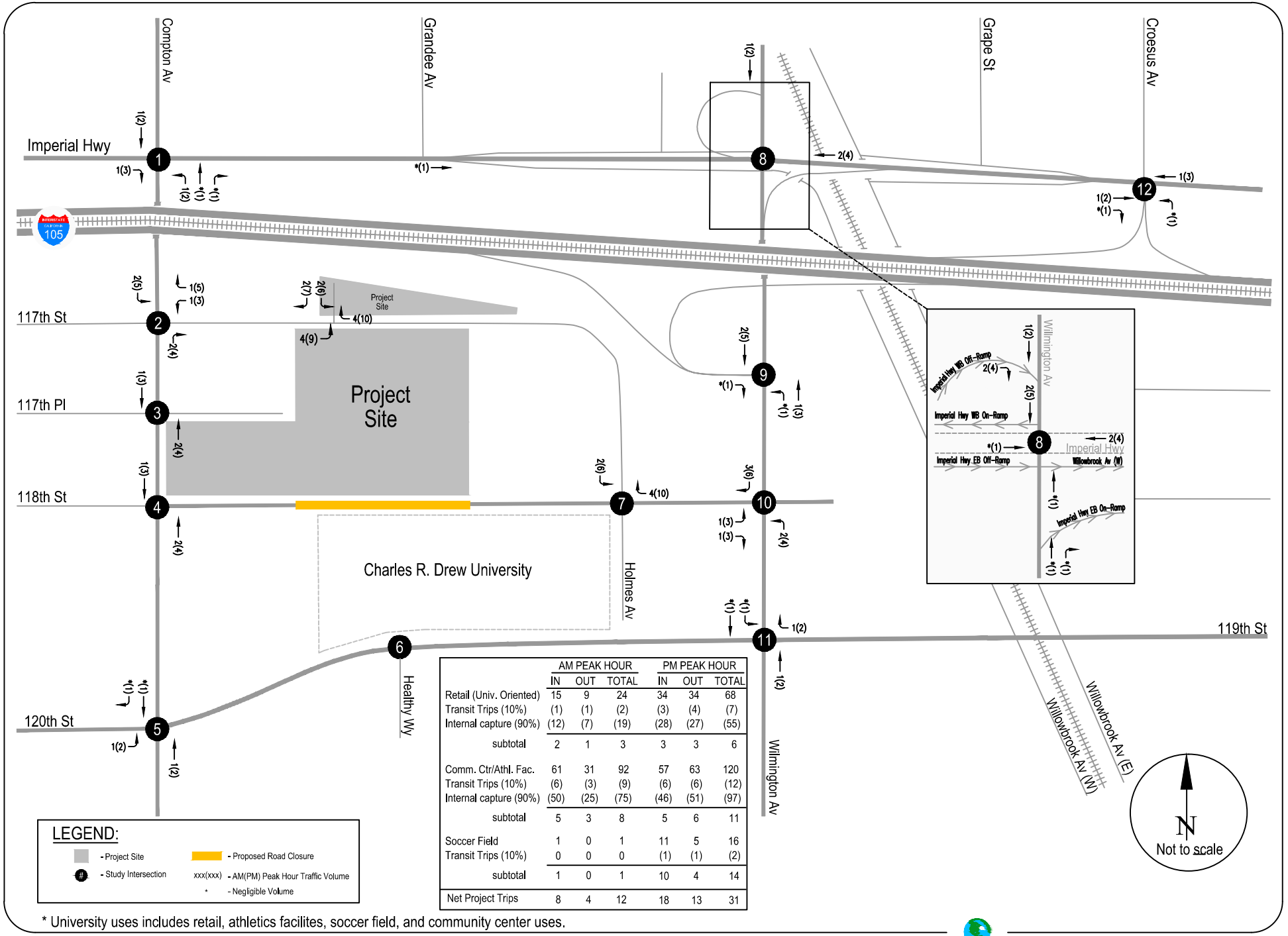

	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Retail (Univ. Oriented)	15	9	24	34	34	68
Transit Trips (10%)	(1)	(1)	(2)	(3)	(4)	(7)
Internal capture (90%)	(12)	(7)	(19)	(28)	(27)	(55)
subtotal	2	1	3	3	3	6
Comm. Ctr/Athl. Fac.	61	31	92	57	63	120
Transit Trips (10%)	(6)	(3)	(9)	(6)	(6)	(12)
Internal capture (90%)	(50)	(25)	(75)	(46)	(51)	(97)
subtotal	5	3	8	5	6	11
Soccer Field	1	0	1	11	5	16
Transit Trips (10%)	0	0	0	(1)	(1)	(2)
subtotal	1	0	1	10	4	14
Net Project Trips	8	4	12	18	13	31

* University uses includes retail, athletics facilites, soccer field, and community center uses.

FIGURE 18D
UNIVERSITY USES PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

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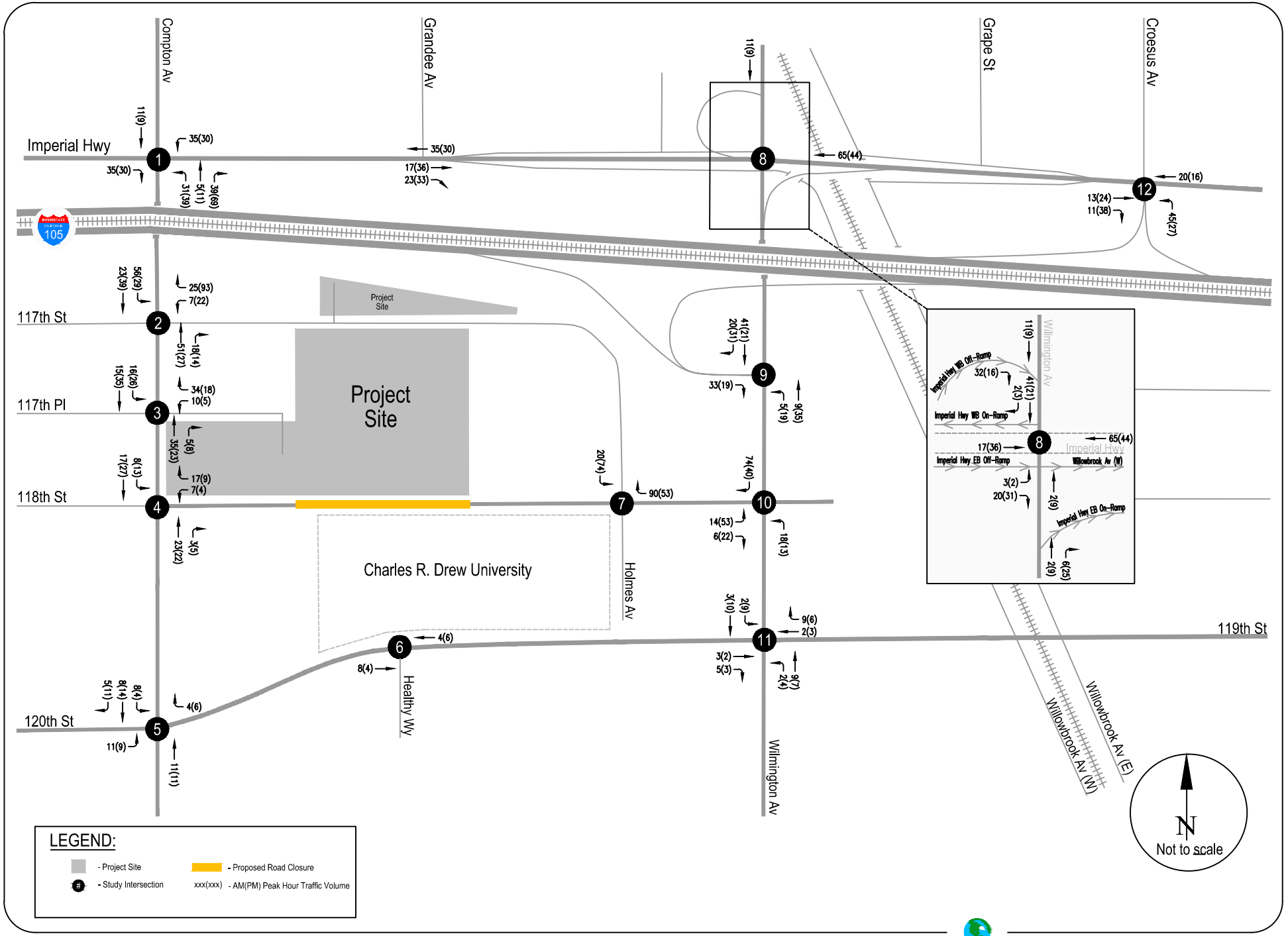

FIGURE 19
TOTAL PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

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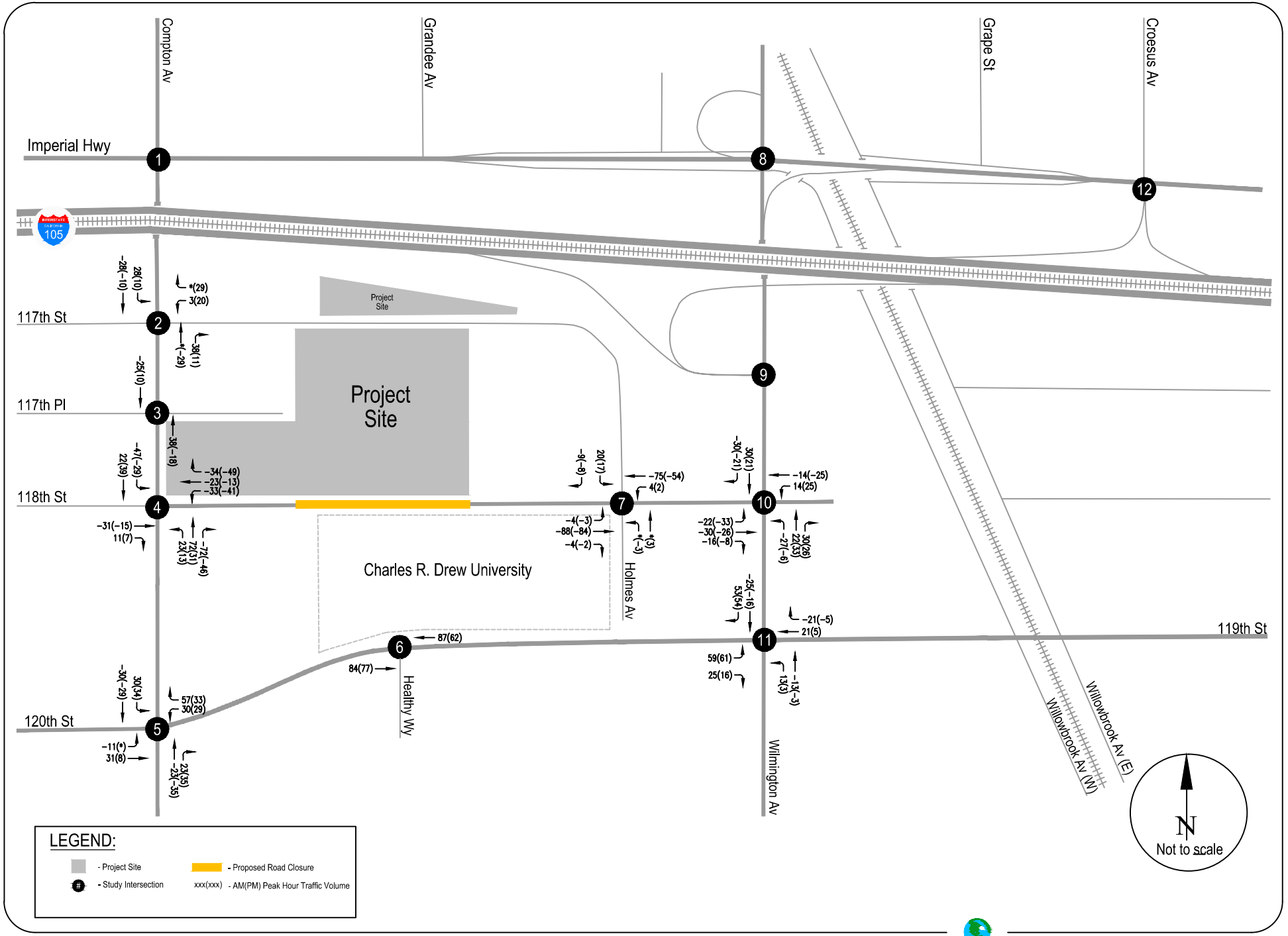

FIGURE 20
118TH STREET CLOSURE VEHICLE DIVERSIONS - PEAK HOUR TRAFFIC VOLUMES

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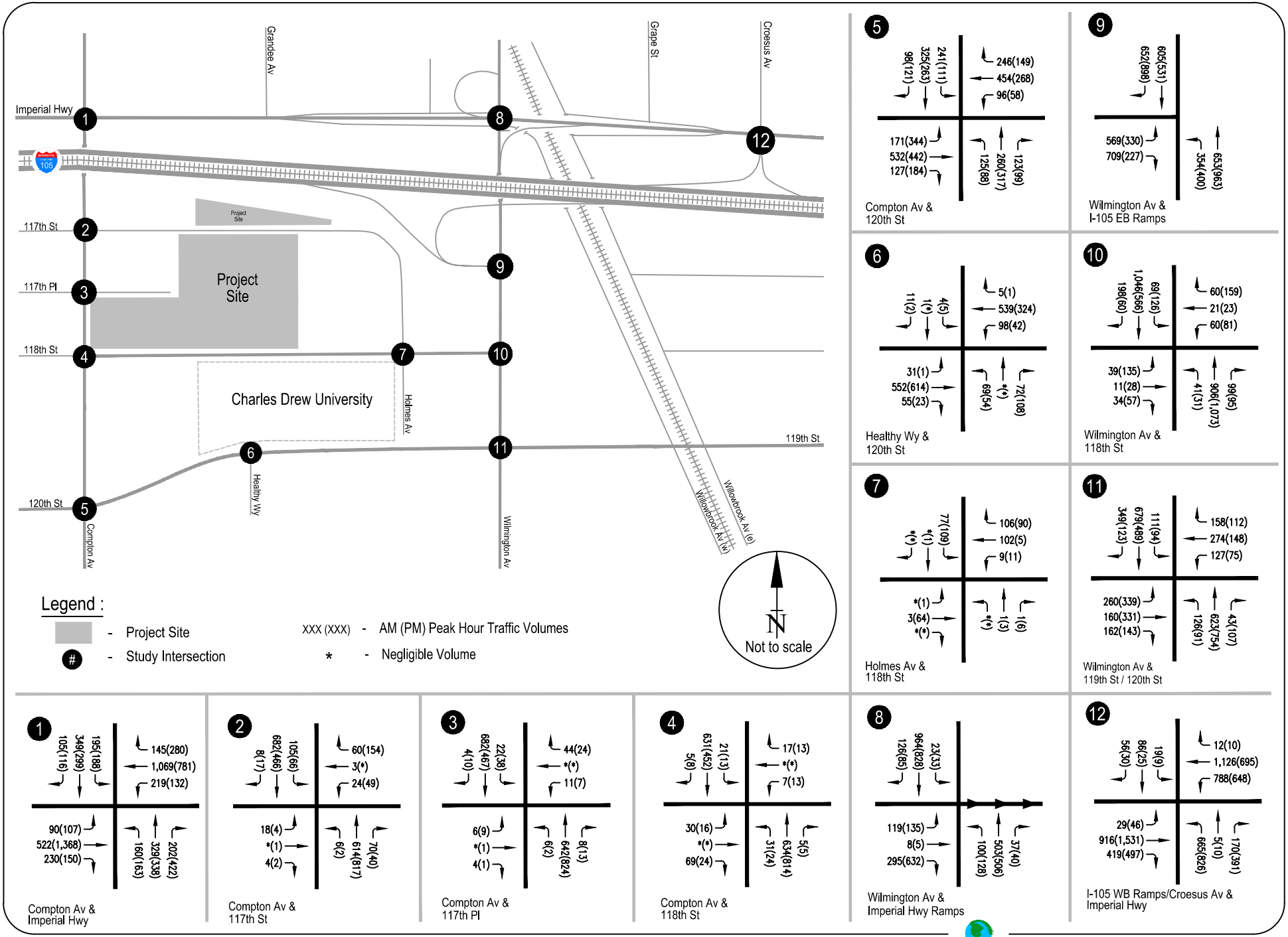

FIGURE 21
CUMULATIVE (2036) WITH PROJECT - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

the study locations compared to Future Cumulative (2036) without Project during both the morning and evening peak hours. All 12 study intersections are projected to continue to operate at LOS D or better during both the morning and evening peak hours.

The operational analysis worksheets for Future Cumulative (2036) with Project conditions are provided in Appendix D of the report.

Corrective Actions

Based on the intersection operation analyses summarized in Table 5, it can be observed that all 12 study intersections are projected to operate at LOS D or better during both the morning and evening peak hours under Existing (2023) conditions and Future Cumulative (2036) conditions without and with the Project. Therefore, no corrective actions would be required for the Project.

INTERSECTION QUEUEING ANALYSIS

Per the County's TIAG requirements, a queueing analysis was performed at the study intersections. Similar to the intersection operational analysis, Synchro software (HCM methodology) was used to analyze intersection approach and/or turn pocket queues at the signalized study intersections.

The 95th-percentile queues for each scenario were obtained at all study signalized intersection approaches where Project traffic was expected to travel to and from the Project Site. The 95th-percentile queues are defined as the length of queue that has only a 5% probability of being exceeded during the analyzed peak period of analysis. This is a conservative analysis and does not represent what the average driver would experience but is a commonly used standard in the traffic engineering profession to assess the lengths of turn pockets.

Per the TIAG, Project access is considered constrained if the Project's traffic would contribute to unacceptable queuing at nearby signalized intersections. Unacceptable queuing may be defined as spill over from turn pockets into through lanes and/or spill over into intersections. For the purposes of this evaluation, unacceptable (substantial) queuing conditions would occur if trips generated by the Project contributes to or creates spill over from turn pockets into through lanes and/or spill over into intersections (i.e. unacceptable queuing).

Table 8 summarizes study intersection queues for the Existing (2023) conditions, Future Cumulative Year (2036) without Project and Future Cumulative Year (2036) with Project conditions. The 95th-percentile queues less than 20 feet were rounded up to 20 feet, approximately the amount of space a vehicle takes up on average considering spacing from other vehicles. The 95th-percentile queues are noted with bold numbers if they exceeded storage or pocket capacity.

TABLE 8
SUMMARY OF INTERSECTION QUEUE ANALYSIS

Intersection	Key Movement [a]	Storage Length (feet) [b]	Peak Hour	95th-Percentile Queue Length (feet) [c]			Queue Increase (feet)
				Existing (2023) Conditions	Future Cumulative (2036) without Project Conditions	Future Cumulative (2036) with Project Conditions	
Compton Avenue & Imperial Highway	EBR	735	AM	90	96	116	20
			PM	50	56	72	16
	WBL	170	AM	134	146	188	42
		+ 413 Median [d]	PM	140	168	278	110
	NBL	100	AM	100	**114**	**156**	**42**
			PM	84	94	**134**	**40**
	NBT	605	AM	166	172	174	2
			PM	160	166	170	4
	NBR	605	AM	74	82	106	24
			PM	182	192	236	44
	SBTR	900	AM	250	258	268	10
			PM	212	220	226	6
Compton Avenue & 118th Street	WBLTR	1615	AM	58	62	20	-42
			PM	68	76	20	-56
	NBLT	697	AM	46	52	50	-2
			PM	50	58	36	-22
	NBTR	697	AM	38	42	44	2
			PM	40	48	32	-16
	SBLT	255	AM	48	50	48	-2
			PM	22	24	18	-6
Compton Avenue & 120th Street	EBL	100	AM	**138**	**164**	**170**	**6**
			PM	**162**	**180**	**204**	**24**
	EBT	835	AM	250	262	288	26
			PM	140	150	162	12
	WBL	190	AM	48	52	88	36
			PM	20	12	28	10
	WBR	75	AM	34	34	48	14
			PM	30	32	46	14
	NBTR	310	AM	90	94	98	4
			PM	106	110	110	0
	SBL	100	AM	38	42	68	26
			PM	42	42	66	24
	SBTR	700	AM	26	26	24	-2
			PM	92	98	92	-6
Healthy Way & 120th Street	EBT	822	AM	98	104	122	18
			PM	144	150	178	28
	WBT	400	AM	104	108	132	24
			PM	56	60	82	22
Wilmington Avenue & Imperial Highway Ramps	EBL	935	AM	115	118	121	3
			PM	98	101	102	1
	EBR	935	AM	63	64	81	17
			PM	310	344	424	80
	NBT	700	AM	146	155	161	6
			PM	206	212	215	3
	SBTR	545	AM	238	253	270	17
			PM	330	348	361	13
Wilmington Avenue & I-105 Freeway Eastbound Ramps	EBR	1,035	AM	446	460	504	44
			PM	78	90	126	36
	NBL	122	AM	**184**	**202**	**224**	**22**
			PM	**188**	**204**	**222**	**18**
	NBT	305	AM	20	20	20	0
			PM	20	20	20	0
	SBT	700	AM	232	240	254	14
			PM	172	182	188	6
	SBR1/SBR2	290/705	AM	266	272	282	10
			PM	338	370	402	32
Wilmington Avenue & 118th Street	EBLTR	435	AM	90	104	66	-38
			PM	162	178	188	10
	NBL	95	AM	42	46	38	-8
			PM	20	22	28	6
	NBTR	397	AM	146	152	156	4
			PM	176	184	194	10
	SBTR	305	AM	144	152	154	2
			PM	116	132	146	14
Wilmington Avenue & 119th Street-120th Street	EBL	240	AM	140	160	280	120
		+ 450 Median [d]	PM	188	198	242	44
	EBT	690	AM	36	38	38	0
			PM	152	156	156	0
	EBR	240	AM	32	32	40	8
			PM	58	60	64	4
	WBTR	795	AM	228	242	248	6
			PM	130	138	132	-6
	NBL	150	AM	110	120	152[e]	32
			PM	50	54	66	12
	NBT	390	AM	156	160	160	0
			PM	182	190	204	14
	SBL	80	AM	72	78	78	0
			PM	54	64	80	16
	SBTR	398	AM	272	282	298	16
			PM	138	146	172	26
I-105 Westbound Ramps/Croesus Av & Imperial Highway	EBT	[1]	AM	182	228	232	4
			PM	270	284	296	12
	EBR	[1]	AM	190	194	198	4
			PM	280	294	304	10
	WBT	887	AM	232	244	250	6
			PM	138	144	148	4
	NBL/NBLT	540/540	AM	318	338	396	58
			PM	344	368	400	32

Notes:

*The 95th-percentile queues are noted with bold numbers if they exceed available storage or pocket capacity.

**Project related queues are highlighted if the Project contributes to or creates spill over from turn pockets into through lanes and/or spill over into intersections (i.e. unacceptable queuing).

*** Resulting queue lengths less than 20 feet (approximately length of one vehicle) were rounded up to 20 feet.

EB = Eastbound Approach; WB = Westbound Approach; NB = Northbound Approach; SB = Southbound Approach

L = Left-Turn, T = Through, R = Right-Turn

[a] Key movement defined as a queue most likely affected by the Project that either (1) extends beyond the storage bay of the turn pocket or (2) a through queue that extends to the upstream signalized intersection.

[b] Storage lengths measured from Google Maps.

[c] 95th-Percentile queue length from Highway Capacity Manual (HCM) 6th Edition methodology using Synchro 11 software. The queue length reported is the one for the lane with the highest queue in the lane group.

[d] Center left-turn median provides additional queue storage.

[e] The queue length exceeds the storage length by two (2) feet which can be accommodated within the turn pocket's taper length. This queue length would not result in vehicles spilling over from the northbound left-turn turn pocket into the through lanes.

Existing (2023) Conditions Queue Analysis

As indicated in Table 8, based on the 95th percentile queue lengths, the following intersections have queue lengths that exceed available capacity or storage spaces under Existing (2023) during the morning and evening peak hours:

- Compton Avenue at 120th Street: Eastbound left-turn lane during the morning and evening peak hours.

- Wilmington Avenue at I-105 Freeway Eastbound Ramps: Northbound left-turn lane during the morning and evening peak hours.

Future Cumulative (2036) without Project Conditions Queue Analysis

As indicated in Table 8, based on the 95th percentile queue lengths, the following three intersections are projected to have queue lengths that exceed available capacity or storage space under Cumulative (2036) without Project conditions during the morning and/or evening peak hours:

- Compton Avenue at Imperial Highway: Northbound left-turn lane during the morning peak hour. The queue length exceeds the storage length by 14 feet, as shown in Table 8, which can be accommodated within the turn pocket's taper length. This queue length would not result in vehicles spilling over from the northbound left-turn turn pocket into the through lanes.

- Compton Avenue at 120th Street: Eastbound left-turn lane during the morning and evening peak hours.

- Wilmington Avenue at I-105 Freeway Eastbound Ramps: Northbound left-turn lane during the morning and evening peak hours.

Future Cumulative (2036) with Project Conditions Queue Analysis

As indicated in Table 8, based on the 95th percentile queue lengths, the following four intersections would have queue lengths that exceed available capacity or storage spaces under Cumulative (2036) with Project conditions during the morning and evening peak hours:

- Compton Avenue at Imperial Highway: Northbound left-turn lane during the morning and evening peak hours. The Project contributes to the unacceptable queuing at this location.

- Compton Avenue at 120th Street: Eastbound left-turn lane during the morning and evening peak hours. The Project contributes to the unacceptable queuing at this location.

- Wilmington Avenue at I-105 Freeway Eastbound Ramps: Northbound left-turn lane during the morning and evening peak hours. The Project contributes to the unacceptable queuing at this location.

- Wilmington at 119th Street/120th Street: Northbound left-turn lane during the morning peak hour. The queue length exceeds the storage length by only two (2) feet, as shown in Table 8, which can be accommodated within the turn pocket's taper length. This queue length would not result in vehicles spilling over from the northbound left-turn turn pocket into the through lanes. Therefore, the Project does not contribute to or create unacceptable queuing at this location.

Corrective Actions

Based on the queueing evaluations, the Project contributes to unacceptable queuing at the three (3) study intersections identified above. Therefore, corrective actions would be required for the Project at these three study intersections. The corrective actions include the following:

- Compton Avenue at Imperial Highway: The existing northbound left-turn pocket along Compton Avenue has a length of approximately 100 feet. The corrective action consists of extending the northbound left-turn pocket by 70 feet, resulting in a turn pocket length of 170 feet. This would accommodate the potential future projected queue length. No on-street parking is allowed along this stretch of Compton Avenue, and therefore, no on-street parking would be removed for this corrective action.

- Compton Avenue at 120th Street: The existing eastbound left-turn pocket along 120th Street has a length of approximately 100 feet. The corrective action consists of extending the eastbound left-turn pocket by 100 to 120 feet, resulting in a turn pocket length of 200 to 220 feet. This would accommodate the projected queue length. No on-street parking is allowed along this stretch of 120th Street, and therefore, no on-street parking would be removed for this corrective action.

- Wilmington Avenue at I-105 Freeway Eastbound Ramps: The existing northbound left-turn pocket along Wilmington Avenue has a length of approximately 122 feet. The corrective action consists of providing a second (dual) northbound left-turn lane or extending the left-turn pocket length. Providing a second northbound left-turn lane would require two

receiving lanes. The receiving lanes (I-105 eastbound on-ramp) include one carpool lane and one mixed-flow lane. Therefore, the additional northbound left-turn lane would serve only carpool vehicles and would not provide the required additional storage length for all users. Further, there could be safety issues due to non-carpool vehicles needing to merge on the ramp and not having the ability to do so.

Another consideration at this location is the geometric constraint that exists relative to the dual southbound left-turn pocket storage length at the Wilmington Avenue/118th Street-Plaza driveway intersection. The northbound left-turn lane at the Wilmington Avenue/I-105 Eastbound Ramps intersection cannot be extended to the south because that would require shortening the already short dual southbound left-turn pocket at the Wilmington Avenue/118th Street-Plaza driveway intersection. Therefore, the northbound approach at the Wilmington Avenue/I-105 Eastbound Ramps intersection cannot be improved to provide dual left-turn lanes nor can the northbound left-turn storage length be extended for the reasons noted above. This improvement cannot be implemented.

Freeway Off-Ramp Queue Analysis

A freeway safety analysis has been prepared to assess whether the project would result in impacts due to queuing from a freeway off-ramp that could lead to unsafe differential travel speeds. If the Project traffic is expected to cause or add to a queue extending onto the freeway mainline by less than two car lengths, the project would cause a potential safety impact. If the queue is already extending or projected to extend onto the freeway mainline, and the Project increases the overflow onto the mainline lanes by less than two car lengths, the project would not cause a freeway safety impact. The following two freeway off-ramps have been evaluated:

- I-105 Freeway Eastbound Off-Ramp at Wilmington Avenue
- I-105 Freeway Westbound Off-Ramp at Imperial Highway

The results of the freeway off-ramp queue analysis are presented in Table 9. As indicated in the table, the queue lengths are not exceeded at either freeway off-ramp under Existing (2023) conditions and Cumulative (2036) without Project conditions. The Project would add one to two car length to the queue at the evaluated freeway off-ramps. However, the resulting freeway off-ramp queue lengths can be accommodated by the available storage lengths and the queues would not extend to the freeway mainline. Therefore, the Project would not cause a freeway safety impact and no corrective action would be necessary.

TABLE 9
SUMMARY OF FREEWAY OFF-RAMP QUEUE ANALYSIS

Intersection	Key Movement [a]	Storage Length (feet) [b]	Peak Hour	95th-Percentile Queue Length (feet) [c]			Queue Increase (feet)
				Existing (2023) Conditions	Future Cumulative (2036) without Project Conditions	Future Cumulative (2036) with Project Conditions	
Wilmington Avenue & I-105 Freeway Eastbound Ramps	EBL	1,035	AM	496	556	556	0
			PM	288	298	298	0
	EBR	1,035	AM	446	460	504	44
			PM	78	90	126	36
I-105 Westbound Ramps/Croesus Av & Imperial Highway	NBL/NBLT	540/540	AM	318	338	396	58
			PM	344	368	400	32
	NBR	330	AM	18	20	20	0
			PM	52	54	54	0

Note: Project related queues are highlighted if the Project contributes to or creates spill over from turn pockets into through lanes and/or spill over into intersections (i.e. unacceptable queuing)

EB = Eastbound Approach; WB = Westbound Approach; NB = Northbound Approach; SB = Southbound Approach
L = Left-Turn, T = Through, R = Right-Turn

[a] Key movement defined as a queue most likely affected by the Project that either (1) extends beyond the storage bay of the turn pocket or (2) a through queue that extends to the upstream signalized intersection.
[b] Storage lengths measured from Google Maps.
[c] 95th-Percentile queue length from Highway Capacity Manual (HCM) 6th Edition methodology using Synchro 11 software. The queue length reported is the one for the lane with the highest queue in the lane group.

LOCAL RESIDENTIAL STREET CUT-THROUGH ANALYSIS

This section addresses cut-through traffic that may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments.

Development Projects Screening Criteria (TIAG Section 4.3.2.1)

If the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect residential streets:

- Is the project required to submit a Transportation Impact Analysis?
    - **Project Response: Yes, the Project is required to submit a Transportation Impact Analysis.**
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?
    - **Project Response: Yes, the development project involves a discretionary action.**

In addition, for development projects to which all of the following circumstances apply, select local residential street segments for analyses during the transportation assessment scoping process:

- The project is located along a current Limited Secondary, Secondary, Major, Parkway, Expressway per the County's General Plan and the study intersections under project build-out conditions (as determined in Section 4.1) operate at a peak hour LOS E or LOS F.
    - **The Project is located along local streets, 117th Street, 117th Place and 118th Street, and a secondary highway, Compton Avenue. Based on the intersection operational analysis, the study intersections located along Compton Avenue are projected to operate at LOS D or better during the morning and evening peak hours under Cumulative (2036) with Project conditions.**
- The project has a potential, based on connectivity to the roadway network, to add automobile traffic to the alternative local residential street route(s) during peak hours.
    - **The Project does not have the potential to add automobile traffic to the alternative local residential street route(s) during peak hours. The local roadway streets (117th Street, 117th Place, 118th Street, 118th Place and 119th**

Street) west of the Project Site do not provide direct connectivity to collector, secondary or major arterial roadways, and there are no local streets east of the Project Site that would provide an alternative access route. Given that the study intersections along the secondary and major arterial providing primary access to the Project Site are projected to operate at LOS D or better during the morning and evening peak hours under Cumulative (2036) with Project conditions, there is less potential for Project vehicular trips (including the diversion of traffic due to the 118th Street closure) to seek an alternative local residential street route.

- An alternative local residential street route (defined as local streets as designated in the County's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative local residential street route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. The project applicant in consultation with Public Works shall define which routes are viable alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, and other criteria as determined by Public Works.

    - **There are no alternative local residential street routes within the study area that provide motorists with a viable alternative route as discussed above.**

Based on the screening criteria, no further analysis will be required to assess whether the project would negatively affect residential streets. Additionally, trips to and from new development projects with driveways located on local neighborhood streets are not considered "cut-through" traffic. However, due to the Project's proposed closure of 118th Street, the local roadway segments of 117th Street/Holmes Avenue between Compton Avenue and 118th Street and 118th Street between Compton Avenue and Holmes Avenue have been evaluated for informational purposes.

Existing Daily Traffic Volumes

Daily traffic counts at the study street segments were collected in April 2023 using machine counters. The raw traffic count data for these segments are included in Appendix C.

Existing daily traffic volumes are summarized in Table 10. As indicated in the table, the existing daily traffic volume on 118th Street east of Compton Avenue is approximately 2,225 vehicles per day and west of Holmes Avenue is approximately 2,359 vehicles per day. The existing daily traffic volume on 117th Street/Holmes Avenue between Compton Avenue and 118th Street is approximately 741 vehicles per day.

TABLE 10
SUMMARY OF DAILY TRAFFIC VOLUMES

Street	Extent	Daily Traffic Volumes		
		Existing (2023) Conditions	Cumulative (2036) Base Conditions	Cumulative (2036) with Project Conditions
118th Street	e/o Compton Avenue	2,225	2,458	801
118th Street	w/o Holmes Avenue	2,359	2,568	1,025
117th Street/Holmes Avenue	between Compton Avenue and 118th Street	741	969	2,496

Cumulative (2036) without Project Daily Traffic Volumes

The Cumulative (2036) without Project daily traffic volumes were developed in the same manner as peak hour traffic volumes described earlier in this chapter. The Future Cumulative (2036) without the Project was first developed including estimates for background growth in area-wide trip making and trips generated by future background development (related projects) in the vicinity of the study area. The Future Cumulative (2036) without Project traffic represents the cumulative base conditions.

The resulting Cumulative (2036) without Project daily traffic volumes as summarized in Table 10. As indicated in the table, the Cumulative (2036) without Project daily traffic volume on 118th Street east of Compton Avenue is projected to be approximately 2,458 vehicles per day and west of Holmes Avenue is approximately 2,568 vehicles per day. The Cumulative (2036) without Project daily traffic volume on 117th Street/Holmes Avenue between Compton Avenue and 118th Street is approximately 969 vehicles per day.

Cumulative (2036) with Project Daily Traffic Volumes

Based on the distribution assumptions and daily trip generation estimates for the Project as well as the diversions due to the proposed closure 118th Street, daily traffic estimates of net project-only trips were developed.

Utilizing the Project-only traffic estimates and 118th Street closure diversions, daily traffic forecasts for the Future Cumulative (2036) with Project conditions were developed. The Future Cumulative (2036) without Project daily traffic forecasts were combined with the Project-only traffic volumes and 118th Street closure traffic volume diversions to obtain the Future with Project traffic volume forecasts.

The Future Cumulative (2036) with Project daily traffic volumes are also summarized in Table 10. As indicated in the table, daily traffic volume along 117th Street/Holmes Avenue would increase by approximately 1,527 vehicles per day, while the daily traffic volume along 118th Street would decrease by approximately 1,543 to 1,657 vehicles per day.

The Cumulative (2036) with Project daily traffic volume on 118th Street east of Compton Avenue is projected to be approximately 801 vehicles per day and west of Holmes Avenue is approximately 1,025 vehicles per day. The existing daily traffic volume on 117th Street/Holmes Avenue between Compton Avenue and 118th Street is approximately 2,496 vehicles per day.

Based on the projected daily traffic volumes in Cumulative (2036) with Project conditions, it can be observed that 117th Street/Holmes Avenue (also a local street) would be able to accommodate the diverted and additional traffic due to the proposed Project and closure of 118th Street to vehicular traffic.

ADDITIONAL SITE ACCESS ANALYSIS

This section addresses project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

Screening Criteria (TIAG Section 4.4.2.)

If the answer is yes to any of the following question, additional site access studies may be required to assess the project's site access requirements:

- Would the project provide a driveway on a rural cross section two-lane highway per the County's General Plan?
    - **Project Response: No, the Project does not provide a driveway on a rural cross section two-lane highway per the County's General Plan.**
- Does the project's land use require vehicles to queue on-site?
    - **Project Response: No, the Project's land uses do not require vehicles to queue on-site.**
- Does the project's land use include intermittent events which may exceed the supply of on-site parking?
    - **Project Response: Yes, the Project's land uses may include intermittent events which may exceed the supply of on-site parking. Larger events with anticipated attendance and associated parking will need to prepare an Event Management Plan.**

The answer is yes to one of the questions. Therefore, additional site access studies are required to assess the project's site access requirements.

Special Events

Occasional events such as new student orientations, student gatherings, CDU graduation, Jazz at Drew (an annual weekend concert event), and white coat ceremonies currently occur on the existing CDU campus. Given that the Project does not include an increase in student enrollment, the Project team assumes that adequate parking will be provided for any of these events occurring on-site in the future, similar to existing conditions. The proposed athletic facilities and field may be scheduled for joint use events by local organizations or neighborhood community when not in use by the University. This use may be pursuant to a rental or other appropriate use agreement. This community use of the athletic facilities and field could include local leagues, Compton Unified Schools and King Drew Magnet events. The community use of the athletic facilities and field would typically be expected to occur during daytime and evening hours on weekdays, and during the day and evenings on weekends.

Per discussions with and direction from LACPW, an Event Management Plan will need to be prepared for large events with attendance of 500 or more people when additional provisions for pick-up/drop-off, parking, valet service and updated signage would be required. Detailed programming of special events will occur on an annual basis. Through this process, the exact days, hours, and content of special events held at the Campus will be determined. Additional details on these events will be provided to LACPW through the Event Management Plan. The Event Management Plan will address and include the following elements:

- A memorandum describing the following:
    - A site plan that will include the following:
        - Pick-up and drop-off locations utilized by shuttle vans and automobiles
        - Valet service locations
        - On-site circulation and sign locations
        - Location of parking attendants
    - Days and hours of operations for special events
    - Number of special events per year
    - Expected attendance of special events
    - Alternative off-site parking locations and related operations (e.g., shuttle service)
    - Number of parking attendants and their functions

CONSTRUCTION ANALYSIS

This section addresses activities associated with Project construction. This project construction assessment is based on the screening criteria, evaluation criteria and methodology established in the County's TIAG.

Screening Criteria (TIAG Section 4.2.2.)

If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation:

- For projects that require construction activities to take place within the right-of-way of a highway, would it be necessary to close any temporary lanes, alleys, or streets for more than one day (including day and evening hours, and overnight closures if on a residential street)?

    - **Project Response: The Project is located along local streets, 117th Street, 117th Place and 118th Street, and along a secondary highway, Compton Avenue. It is not anticipated that the Project would require construction activities to take place within the right-of-way of a highway (Compton Avenue).**

- For projects that require construction activities to take place within the right-of-way of a Local Street, would it be necessary to temporarily close any lanes, alleys, or streets for more than seven days (including day and evening hours, and including overnight closures if on a residential street)?

    - **Project Response: Yes. The Project may require construction activities to take place within the right-of-way of a Local Street.**

- Would in-street construction activities result in the loss of any vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units?

    - **Project Response: Yes. The construction activities are anticipated to result in intermittent closure of the sidewalk and on-street parking along the Project's frontages during certain periods of construction. The Project's construction activities would not result in the loss of bicycle access.**

- Would in-street construction activities result in the loss of any ADA access to an existing transit station, stop, or facility (e.g., layover zone)?

    - **<u>Project Response</u>: No, in-street construction activities would not result in the loss of any ADA access to an existing transit station, stop, or facility.**

- Would in-street construction activities restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route?

    - **<u>Project Response:</u> No, in-street construction activities would not restrict access to any bus stops for more than one day or necessitate any rerouting of a bus route.**

- Would construction of a project interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas?

    - **<u>Project Response:</u> No, the Project would not interfere with pedestrian, bicycle, transit or vehicle circulation and accessibility to adjoining areas.**

Based on the Project response to the screening questions, the Project is required to assess whether its construction activities would negatively affect project access and circulation.

<u>Evaluation Criteria (TIAG Section 4.2.3.)</u>

Per the County's TIAG, factors to be considered as part of the construction phase analysis are: location of the project site, functional classification of the adjacent street, availability of alternate routes or additional capacity, temporary loss of bicycle parking, temporary loss of bus stops or rerouting of transit lines, duration of temporary loss of access, affected land uses, and magnitude of the temporary construction activities The evaluation criteria are based on the following factors:

- Temporary transportation constraints:
    - Length of time of temporary street closure or closures of one or more travel lanes,
    - Classification of the street (major arterial, state highway) affected,
    - Existing congestion levels on the affected street segments and intersections,
    - Direct access to freeway on- or off-ramp or other state highway,
    - Presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.

- Temporary loss of access:
  - Length of time of any loss of pedestrian or bicycle circulation outside the construction zone,
  - Length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel within the construction zone,
  - Length of time of any loss of ADA pedestrian access to a transit station, stop, or facility,
  - Availability of nearby vehicular or pedestrian access within 1/2 mile of the lost access.

- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
  - Days and times during which an existing bus stop would be unavailable or existing service would be interrupted,
  - Availability of a nearby location (within 1/2 mile) to which the bus stop or route can be temporarily relocated,
  - Existence of other bus stops or routes with similar routes/destinations within a 1/2-mile radius of the affected stops or routes,
  - Time of interruption on a weekday, weekend or holiday, and whether the existing bus route typically provides service on those day(s).

Methodology

The construction analysis includes description of physical setting, including the classification of adjacent streets, on-street parking conditions including bicycle parking (in the immediate vicinity of the construction project), a description of the land uses potentially affected by construction, and an inventory of existing transit lines, bus stops, transit stations, and transit facilities within a ½-mile radius of the construction site. Provided in the following section is a description of construction procedures or plans to determine whether construction activity within the street right-of-way would require any of the following:

- Closure of street, sidewalk, or lanes.
- Blocking existing vehicle, pedestrian, or bicycle access along a street or to parcels fronting the street.
- Modification of access to transit stations, stops or facilities during service hours.
- Closure or movement of an existing bus stop or rerouting of an existing bus line.
- Creation of transportation hazards.

Compare the results to the evaluation criteria to determine the level of deficiency.

Project Construction Assessment

The Project has frontages along both sides of 117th Street (local street), the south side of 117th Place (local street), the north side of 118th Street (local street) and the east side of Compton Avenue (secondary arterial) as shown in Figure 1. There are sidewalks provided on both sides of these streets.

The Project's 117th Street north side frontage provides a total of approximately 28 on-street parking spaces (non-metered) and the south side frontage provides a total of approximately 25 on-street parking spaces (non-metered). The Project's 117th Place frontage along the south side of the street provides a total of approximately 15 on-street parking spaces (non-metered). A total of approximately 9 on-street parking spaces (non-metered) are located along the Project's Compton Avenue western frontage. There are approximately 39 on-street parking spaces located along the Project's 118th Street southern frontage. Due to the Project's proposed closure of 118th Street, a total of approximately 28 on-street spaces would be permanently removed.

Certain construction activities, e.g. concrete pours, would potentially require intermittent lane closure along the Project's frontages. The Project's construction activities would also potentially result in the temporary/intermittent closure of the sidewalks along the Project's frontages and restriction of the on-street parking spaces along the Project's frontages.

Currently, there are no bicycle facilities located adjacent to the Project Site. Nearby bicycle facilities are located along Imperial Highway and 120th Street. The Project's construction activities would not result in the temporary/intermittent closure of these bicycle facilities.

An inventory of existing transit lines within half mile of the Project Site is shown in Figure 9 (Chapter 2). As shown in Figure 9, nine bus lines and two light rail lines currently serve the half mile area from the Project Site. Metro Bus Lines 53, 55, and 120 travel along Compton Avenue and include bus stops located on the corners of the intersection of Compton Avenue/118th Street near the Project Site. There are no other bus routes or bus stops adjacent/near the Project Site. Other bus routes within the study area include Metro Bus Lines 202 and 205, LADOT DASH Watts line, Los Angeles County Public Works' Link Lines A and B, and Gardena Transit Line 5. These lines travel along 120th Street, Wilmington Avenue and Willowbrook Avenue within the study area. Both Metro A Line and C Line stations are located within a half-mile of the Project Site. No transit system effects are anticipated during construction of the Project.

Construction activities are anticipated to occur Monday through Saturday from 7:00 a.m. to 7:00 p.m. These hours are consistent with the County's noise ordinance.

Temporary Transportation Constraints - The proposed Project construction procedures/plans do not include long term closure of any travel lanes along 117th Street (Local Street), 117th Place (Local Street) and Compton Avenue (Secondary Arterial) Project's frontages during the duration of construction. However, certain construction activities, e.g. concrete pours, may potentially require intermittent lane closure (one lane) along the Project's frontages. As proposed, 118th Street would be closed to vehicular traffic (with the exception of emergency vehicles) and converted into a pedestrian promenade. During the construction phase, 118th Street would be permanently closed to vehicles.

Temporary Loss of Access - As stated earlier, Project construction would potentially intermittently restrict the on-street parking (non-metered) along the Project's frontages during the period of construction. These on-street parking spaces (identified above) could be temporarily restricted, intermittently during the construction period.

Sidewalks along the Project's frontage generally could be closed during certain construction activities. For example, during activities such as concrete pours, there will potentially be intermittent closure of the Project's frontage sidewalks. No ADA pedestrian access impact at the nearby intersections is anticipated due to the Project construction activities. Therefore, Project construction activities would not result in the loss of regular ADA pedestrian access to an existing transit station, stop, or facility during revenue hours.

Project construction would not affect other sidewalks in the vicinity of the construction area. Additionally, Project construction would not affect the vehicular driveways to parcels fronting the construction area. Project construction is not anticipated to result in any loss of vehicular, bicycle, or pedestrian access to parcels fronting the construction area.

Temporary Loss of Bus Stops or Rerouting of Bus Lines - No bus stops would be removed during construction. No transit bus rerouting would be required during Project construction.

Analysis/Evaluation

The Project construction assessment identified no potential transit or bicycle constraints during construction. However, temporary/intermittent loss of a travel lane along the Project's frontages, and restriction of non-metered on-street parking along the Project's frontages are anticipated during construction. Sidewalks along the Project's frontages are also anticipated to be intermittently closed. In order to address these construction effects, the following corrective actions may include to the satisfaction of public works:

- Implementation of a Construction Traffic Management Plan (CTMP), including traffic control plans, in consultation with the County of Los Angeles' Public Works Department,
- Coordination with emergency services.
- Coordination of access and other considerations with adjacent property owners and other stakeholders,

V. SUMMARY OF CONCLUSIONS

This transportation assessment study was prepared consistent with the County of Los Angeles' *Transportation Impact Analysis Guidelines, 2020* for both CEQA and Local Transportation Analysis as applicable. The CEQA evaluation consists of analysis of transportation impacts for the following relevant County adopted thresholds for development projects:

- Consistency with Plans, Programs, Ordinances or Policies
- Vehicle Miles Traveled (VMT) Assessment, and
- Geometric Design Hazards.

The Local Transportation Analysis includes intersection operational and queueing analysis, driveway level of service evaluation, transit operations evaluation and construction analysis.

Raju Associates, Inc. performed this detailed study and the following summarizes the results of the analysis:

PROJECT DESCRIPTION

- The Project consists of university related uses including 250 student housing dwelling units, 55 faculty/staff dwelling units, 200 affordable dwelling units, 54 senior affordable dwelling units, 116,000 square feet of office use (including 5,000 square feet of university-oriented community space), 11,500 square feet of facilities/services use, 10,270 square feet of university-oriented retail use and 48,100 square feet of athletic use and university-oriented community space (including one soccer field). The Project would provide a total of 854 vehicle parking spaces. The existing site is vacant. The Project is anticipated to be completed in the Year 2036.

- The Project would provide a total of 366 bicycle spaces (294 long-term spaces and 72 short-term spaces) located across the Project Site.

- The Project also proposes the vacation and conversion of a portion of 118th Street along the majority of the southern boundary of the Project Site (approximately 700 linear feet) from public right-of-way that permits vehicular travel to a private right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel.

CEQA ANALYSIS

- Consistency with Plans, Programs, Ordinances or Policies – This threshold test is to assess whether a project would conflict with a plan, program, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities. Generally, the County's transportation policies or standards that protect the environment are outlined to support multi-modal transportation options resulting in a reduction of VMTs.

    - The Project's design features support multimodal transportation options and would be consistent with policies, plans, ordinances, and programs. The Project design includes features that minimize impacts to the public right-of-way and enhance the user experience by integrating multimodal transportation options.

    - The Project would not conflict with adopted policies, plans, ordinances, and programs, or preclude County action to fulfill or implement projects associated with multimodal networks. Therefore, the Project would have a less than significant impact on the County's transportation-related plans, programs, ordinances, and policies.

- Vehicle Miles Traveled (VMT) Assessment - For land use projects, the intent of this threshold is to assess whether a land use project or plan causes substantial vehicle miles traveled.

    - The Project is located within ½ mile of an existing major transit stop along an existing high quality transit corridor (in a transit priority area) and the answer is no to all of the screening questions. Therefore, further analysis is not required, and the project is presumed to cause a less than significant transportation impact. Thus, the Project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

    - Since the Project does not cause a significant impact using the efficiency-based impact threshold (Household VMT per capita or Work VMT per employee), the Project would not cause a cumulative significant impact relative to VMT Metric.

- Geometric Design Hazards - Impacts regarding the potential hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts.

    - Based on a review and consideration of the proposed site plan and Project description, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project does not cause a significant impact relative to Geometric Design Hazards.

    - A review of the Project Site plan and of adjacent related projects was conducted. It was observed that the combined effects of these related projects and the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the Project would not cause a cumulative significant impact relative to Geometric Design Hazards.

- Emergency Access - This CEQA Threshold addresses whether the project results in inadequate emergency access.

    - The emergency access to the various Project components would occur along the same facilities that provide access to the site. There would be no constraints or restrictions affecting emergency access.

    - The Project Site is north of the Los Angeles County Fire Department (LACFD) Station 41 and the access to the Martin Luther King Jr. (MLK) Community Hospital emergency department located along 120th Street. Project construction activities would not affect emergency access to these facilities. The Project would develop a construction traffic management plan in coordination with the MLK Community Hospital, LACFD and LACPW to ensure that emergency vehicle access along 118th and 120th Streets are maintained and that access to LCFD Station 41 and the MLK Medical Campus is not constrained or restricted. Therefore, construction and operation of the proposed Project would not result in inadequate emergency access. The Project does not cause a significant impact relative to the CEQA Threshold – Emergency Access.

Summarizing, the Project would not cause significant impacts relative to the County established CEQA thresholds including the following: Consistency with Plans, Programs, Ordinances or Policies, Vehicle Miles Traveled (VMT) Assessment, and Geometric Design Hazards. Therefore, no Project-specific mitigation measures would be required.

LOCAL TRANSPORTATION ANALYSIS

- The study area includes a distance of approximately one-quarter mile radius from the Project Site. The study area includes key facilities generally bounded by Imperial Highway on the north, 119th Street/120th Street on the south, Compton Avenue on the west, and Wilmington Avenue on the east.

- For the local transportation analysis, 12 locations were chosen as study intersections. Nine of 12 study intersections are controlled by traffic signals, and include the following locations:

    - Compton Avenue / Imperial Highway
    - Compton Avenue / 117th Street (unsignalized)
    - Compton Avenue / 117th Place (unsignalized)
    - Compton Avenue / 118th Street
    - Compton Avenue / 120th Street
    - Healthy Way / 120th Street
    - Holmes Avenue / 118th Street (unsignalized)
    - Wilmington Avenue / Imperial Highway Ramps
    - Wilmington Avenue / I-105 Freeway Eastbound Ramps
    - Wilmington Avenue / 118th Street
    - Wilmington Avenue / 119th Street – 120th Street
    - I-105 Freeway Westbound Ramps – Croesus Avenue / Imperial Highway

- The Project would generate a net total of 3,602 daily trips, of which a net total of approximately 314 trips would occur during the morning peak hour and 368 trips during the evening peak hour.

- Intersection Operational Analysis - This section includes an evaluation of the Project's access and circulation constraints relative to the provision of access to and from the Project Site based on the screening criteria, evaluation criteria and methodology established in the County's TIAG. Highway Capacity Manual, 6th Edition (HCM) methodology was utilized to conduct operational and vehicle queuing analyses at the study intersections.

    - **Existing (2023) Conditions:** All 12 study intersections are currently operating at LOS D or better during both the morning and evening peak hours.

    - **Future Cumulative (2036) without Project Conditions:** All 12 study intersections are projected to continue to operate at LOS D or better during the morning and evening peak hours under Future Cumulative (2036) without Project conditions.

    - **Future Cumulative (2036) with Project Conditions:** All 12 study intersections are projected to continue to operate at LOS D or better during both the morning and evening peak hours under Future Cumulative (2036) with Project conditions. Therefore, no corrective actions would be required for the Project.

- Intersection Queue Analysis – Based on the queueing evaluations, the Project contributes to unacceptable queuing at three (3) study intersections. Therefore, corrective actions would be required for the Project at these three study intersections. The corrective actions include the following:

    - Compton Avenue at Imperial Highway: The corrective action consists of extending the northbound left-turn pocket. This would accommodate the potential future projected queue length. No on-street parking is allowed along this stretch of Compton Avenue, and therefore, no on-street parking would be removed for this corrective action.

    - Compton Avenue at 120th Street: The corrective action consists of extending the eastbound left-turn. This would accommodate the potential future projected queue length. No on-street parking is allowed along this stretch of 120th Street, and therefore, no on-street parking would be removed for this corrective action.

    - Wilmington Avenue at I-105 Freeway Eastbound Ramps: The corrective action consists of providing a second (dual) northbound left-turn lane or extending the left-turn pocket length. However, the receiving lanes on the ramp include one carpool lane and one mixed-flow lane. Therefore, the additional northbound left-turn lane would serve only carpool vehicles and would not provide the required additional storage length for all users. Further, there could be safety issues due to non-carpool vehicles needing to merge on the ramp and not having the ability to do so.

      Another consideration at this location is the geometric constraint that exists relative to the dual southbound left-turn pocket storage length at the Wilmington Avenue/118th Street-Plaza driveway intersection. For these reasons,

implementation of this corrective action is infeasible. This improvement cannot be implemented.

- Local Residential Street Cut-Through Analysis – Based on the County's TIAG screening criteria, no further analysis will be required to assess whether the project would negatively affect residential streets.

- Additional Site Access Analysis – An Event Management Plan will be prepared for large events with the attendance of 500 or more people.

- Project Construction Analysis – The project construction assessment consistent with the County's TIAG was conducted and the following summarizes the findings:

    - The Project construction assessment identified no potential transit or bicycle constraints during construction. However, temporary/intermittent loss of a travel lane along the Project's frontages, and restriction of non-metered on-street parking along the Project's frontages are anticipated during construction. Sidewalks along the Project's frontages are also anticipated to be intermittently closed. In order to address these construction effects, the following corrective actions may include to the satisfaction of public works:

        - Implementation of a Construction Traffic Management Plan (CTMP), including traffic control plans, in consultation with the County of Los Angeles' Public Works Department,

        - Coordination with emergency services.

        - Coordination of access and other considerations with adjacent property owners and other stakeholders.

APPENDIX A

Transportation Impact Assessment Scoping Document

TRANSPORTATION IMPACT ANALYSIS (TIA) SCOPING DOCUMENT

This scoping document acknowledges that the TIA for the following Project will be prepared in accordance with the latest version of County of Los Angeles' TIA Guidelines:

I. PROJECT INFORMATION

Original Date Submitted: 8/16/2023 Version: 3 Date Submitted: 11/17/2023

Project Name: Charles R. Drew University Wellness and Education Campus Project

Project Address: 1667 E. 118th Street, Los Angeles, CA 90059 (APN 6149-014-900, 6149-014-903, 6149-014-904, 6149-014-906, 6149-012-901)

Project Description: SEE PROPOSED LAND USES LISTED BELOW.

Project Site Plan attached? ☒ Yes ☐ No

Land Use	Gross Floor Area *Defined per latest ITE publication*	Residential Units (#)
Proposed:		
Affordable Housing		200 DU
Affordable Housing - Senior		54 DU
Multifamily – Faculty/Staff Housing		55 DU
Student Housing		250 DU (426 bedrooms)
Office	116,000 SF	
Retail	10,270 SF	
Community Center	10,000 SF	
Athletic Facilities	43,100 SF	
Soccer Field	1 FIELD	
Facilities Services	11,500 SF	

II. TRIP GENERATION

Trip Generation Rate(s) Source: ITE 11th Edition / Other _____

Trip Generation Adjustment *(Exact amount of credit subject to approval by City of Inglewood)*	Yes	No
Transit Usage	☒	☐
Existing Active or Previous Land Use	☐	☒
Internal Trip	☒	☐
Pass-By Trip	☐	☒
Transportation Demand Management	☒	☐

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? ☒ Yes ☐ No

PROJECT NET TRIP GENERATION SUMMARY

AM Trips		PM Trips		Daily Totals	
In	Out	In	Out	In	Out
196	118	145	223	1,801	1,801

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2033 Ambient Growth Rate: 0.24 % Per Year (based on Metro CMP projections.)

Related Projects List, researched by the consultant, attached?

☒ Yes ☐ No

STUDY INTERSECTIONS:

Show all study intersections, intersections subject to capacity analysis credit for advanced traffic signal control synchronization, whether intersections are signalized or non-signalized.

No.	Intersection	Signalized/Non-Signalized	Jurisdiction
1	Compton Avenue & Imperial Highway	Signalized	County of LA/City of LA
2	Compton Avenue & 117th Street	Non-Signalized	County of Los Angeles
3	Compton Avenue & 117th Place	Non-Signalized	County of Los Angeles
4	Compton Avenue & 118th Street	Signalized	County of Los Angeles
5	Compton Avenue & 120th Street	Signalized	County of Los Angeles
6	Healthy Way & 120th Street	Signalized	County of Los Angeles
7	Holmes Avenue & 118th Street	Non-Signalized	County of Los Angeles
8	Wilmington Avenue & Imperial Highway	Signalized	County of LA/City of LA
9	Wilmington Avenue & I-105 EB Ramps	Signalized	County of LA/Caltrans
10	Wilmington Avenue & 118th Street	Signalized	County of Los Angeles
11	Wilmington Avenue & 119th St/120th St	Signalized	County of Los Angeles
12	I-105 WB Ramps & Imperial Highway	Signalized	Co. of LA/City of LA/Caltrans

STREET SEGMENTS: Show all residential streets to be studied.

No.	Street Name	Limits	Jurisdiction
1	117th Street/Holmes Ave	Btw 118th Street and Compton Avenue	County of Los Angeles
2			

IV. SITE PLAN AND MAP OF STUDY AREA

Does the attached site plan or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	☒	☐	☐
Project Vehicle Peak Hour trips at each study intersection*	☒	☐	☐
Project Vehicle Peak Hour trips at each project access point*	☒	☐	☐
Location of Project driveways	☒	☐	☐
Pedestrian access points and any pedestrian paths	☒	☐	☐
Pedestrian loading zones	☒	☐	☐
Delivery loading zone or area	☐	☒	☐
Bicycle parking onsite	☒	☐	☐
Bicycle parking offsite (in public right-of-way)	☐	☐	☒

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2036 Ambient Growth Rate: 0.24 % Per Year (based on Metro CMP projections.)

Related Projects List, researched by the consultant, attached?

☒ Yes ☐ No

STUDY INTERSECTIONS:

Show all study intersections, intersections subject to capacity analysis credit for advanced traffic signal control synchronization, whether intersections are signalized or non-signalized.

No.	Intersection	Signalized/Non-Signalized	Jurisdiction
1	Compton Avenue & Imperial Highway	Signalized	County of LA/City of LA
2	Compton Avenue & 117th Street	Non-Signalized	County of Los Angeles
3	Compton Avenue & 117th Place	Non-Signalized	County of Los Angeles
4	Compton Avenue & 118th Street	Signalized	County of Los Angeles
5	Compton Avenue & 120th Street	Signalized	County of Los Angeles
6	Healthy Way & 120th Street	Signalized	County of Los Angeles
7	Holmes Avenue & 118th Street	Non-Signalized	County of Los Angeles
8	Wilmington Avenue & Imperial Highway	Signalized	County of LA/City of LA
9	Wilmington Avenue & I-105 EB Ramps	Signalized	County of LA/Caltrans
10	Wilmington Avenue & 118th Street	Signalized	County of Los Angeles
11	Wilmington Avenue & 119th St/120th St	Signalized	County of Los Angeles
12	I-105 WB Ramps & Imperial Highway	Signalized	Co. of LA/City of LA/Caltrans

STREET SEGMENTS: Show all residential streets to be studied.

No.	Street Name	Limits	Jurisdiction
1	117th Street/Holmes Ave	Btw 118th Street and Compton Avenue	County of Los Angeles
2			

IV. SITE PLAN AND MAP OF STUDY AREA

Does the attached site plan or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	☒	☐	☐
Project Vehicle Peak Hour trips at each study intersection*	☒	☐	☐
Project Vehicle Peak Hour trips at each project access point*	☒	☐	☐
Location of Project driveways	☒	☐	☐
Pedestrian access points and any pedestrian paths	☒	☐	☐
Pedestrian loading zones	☒	☐	☐
Delivery loading zone or area	☐	☒	☐
Bicycle parking onsite	☒	☐	☐
Bicycle parking offsite (in public right-of-way)	☐	☐	☒

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

DRAFT

V. CONTACT INFORMATION

	CONSULTANT	DEVELOPER/APPLICANT
Name:	Mr. Srinath Raju, PE	Mr. Carl A. McLaney, MPA
	President/CEO	Vice President of Administration and Infrastructure
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Approved by:	x Srinath Raju	8/16/2023	x	12/13/2023
	Consultant's Representative	Date	Los Angeles County Representative	Date

Adjacent Municipality:	x	Approved by:		
		(if applicable)	Representative	Date

Adjacent Municipality:	x	Approved by:		
		(if applicable)	Representative	Date

ADDITIONAL CONSIDERATIONS:

- As shown in the Site Plan and per the Project description, the Project also proposes the vacation and conversion of a portion of East 118th Street along the majority of the southern boundary of the Project site (approximately 700 linear feet) from right-of-way that permits vehicular travel to a right-of-way that eliminates vehicular travel in favor of a pedestrian promenade that would primarily allow pedestrian and bicycle travel.
- Additionally, the effects of the closure of 118th Street will be evaluated at intersections along parallel roadways as shown in Figure 3.

The following addresses the screening criteria for Sections 1, 3 and 4 from the Los Angeles County Public Works' Transportation Impact Analysis Guidelines (TIAG):

Section 1. – Introduction

Per LACOPW TIAG, '*Public Works generally will require the preparation and submission of a Transportation Impact Analysis for Development Projects that meet the following criteria'*:

- Estimated to generate a net increase of 110 or more daily vehicle trips.

As indicated in Attachment 2, the Project is estimated to generate a total of 3,602 daily trips. Therefore, the Project may require the preparation and submission of a Transportation Impact Analysis.

Section 3. – California Environmental Quality Act (CEQA) Transportation Impact Analysis Process

The following screening criteria serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed. The County has adopted four VMT screening criteria including Non-Retail Project Trip Generation Screening, Retail Project Site Plan Screening, Proximity to Transit Based Screening and Residential Land Use Based Screening. Based on the Project's location, the Proximity to Transit Based Screening Criteria was utilized.

Section 3.1.2.3. – Proximity to Transit Based Screening Criteria

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor?

Yes, the Project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor.

If the answer to the question above is yes, then the following subsequent questions should be considered:
{Details associated with the questions below will be provided in the TIA}

- Does the project have a Floor Area Ratio less than 0.75? **No.**
- Does the project provide more parking than required by the County Code? **No.**
- Is the project inconsistent with the SCAG RTP/SCS? **No.**
- Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units? **No.**

If the answer to all four questions is no, further analysis is not required, and a less than significant determination can be made. **The Project meets the above requirements; therefore, a less than significant determination can be made.**

To determine the proposed change in residential units, the total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project. If there is a net decrease in residential units, the Proximity to Transit Based Screening Criteria cannot be utilized.

As it relates to the proposed Project, the answer is no to all of the above screening questions. Therefore, further analysis is not required, and a less than significant determination can be made. The results of this screening criteria evaluation are consistent with results from the County of Los Angeles VMT Tool (version 1.0), included in Attachment 7. Additionally, the study would include consistency check related to Plans, Policies, Programs and Ordinances, and Hazards due to Geometric Design Features or Incompatible Uses.

Section 4. – Site Access Studies

This section includes the evaluation of the screening criteria for Section 4.1. – Operational Analysis, Section 4.2. – Construction Phase Analysis, Section 4.3. – Local Residential Street Cut-Through Analysis, and Section 4.4. – Additional Site Access Analysis.

Section 4.1. – Operational Analysis

Per LACOPW TIAG, '*The site access and circulation constraints related to the provision of access to and from the project site may be analyzed as part of the project's environmental review. The analysis should address the site access and circulation needs of vehicles, bicycles and pedestrians. If the operation analysis is determined to be necessary in consultation with Public Works, operational performance may be quantified for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site'*.

Section 4.1.2.1. – Development Projects Screening Criteria

For development projects, if the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect project access and circulation:

- Is the project required to submit a Transportation Impact Analysis? ***Yes, the Project is required to submit a Transportation Impact Analysis***

- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning? ***Yes, the Project involves a discretionary action.***

The answer is yes to the following questions, further analysis will be required to assess whether the project would negatively affect project access and circulation. As indicated in Section III (above), 12 intersections have been selected for evaluation of operational deficiencies including LOS and Queueing.

Section 4.2. – Construction Phase Analysis

This section addresses activities associated with project construction and major in-street construction of infrastructure projects.

Section 4.2.2. – Screening Criteria

If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation:

- For projects that require construction activities to take place within the right-of-way of a highway, would it be necessary to close any temporary lanes, alleys, or streets for more than one day (including day and evening hours, and overnight closures if on a residential street)? ***The Project is located along local streets, 117th Street, 117th Place and 118th Street, and along a secondary highway, Compton Avenue. It is not anticipated that the Project would require construction activities to take place within the right-of-way of a highway (Compton Avenue).***

- For projects that require construction activities to take place within the right-of-way of a Local Street, would it be necessary to temporarily close any lanes, alleys, or streets for more than seven days (including day and evening hours, and including overnight closures if on a residential street)? ***Yes, the Project may require construction activities to take place within the right-of-way of a Local Street.***

- Would in-street construction activities result in the loss of any vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units? ***Further analysis is required to make this determination.***

- Would in-street construction activities result in the loss of any ADA access to an existing transit station, stop, or facility (e.g., layover zone)? ***No, in-street construction activities would not result in the loss of any ADA access to an existing transit station, stop, or facility.***

- Would in-street construction activities restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route? ***No, in-street construction activities would not restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route.***

- Would construction of a project interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas? ***Further analysis is required to make this determination.***

At this time, the answer is yes to one of the following questions. Further analysis is required to make the determination of other questions. Therefore, the Project will be required to assess whether its construction activities would negatively affect project access and circulation.

Section 4.3. – Local Residential Street Cut-Through Analysis

This section addresses cut-through traffic that may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments.

Section 4.3.2.1. – Development Projects Screening Criteria

If the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect residential streets:

- Is the project required to submit a Transportation Impact Analysis? ***Yes, the Project is required to submit a Transportation Impact Analysis.***

- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning? ***Yes, the development project involves a discretionary action.***

In addition, for development projects to which all of the following circumstances apply, select local residential street segments for analyses during the transportation assessment scoping process:

- The project is located along a current Limited Secondary, Secondary, Major, Parkway, Expressway per the County's General Plan and the study intersections under project build-out conditions (as determined in Section 4.1) operate at a peak hour LOS E or LOS F. ***The Project is located along local streets, 117th Street, 117th Place and 118th Street, and a secondary highway, Compton Avenue. Further evaluation is required to determine the peak hour LOS along Compton Avenue.***

- The project has a potential, based on connectivity to the roadway network, to add automobile traffic to the alternative local residential street route(s) during peak hours. ***The Project does not have the potential to add automobile traffic to the alternative local residential street route(s) during peak hours. The closure of 118th Street connectivity between Wilmington Avenue and Compton Avenue will be evaluated.***

- An alternative local residential street route (defined as local streets as designated in the County's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative local residential street route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. The project applicant in consultation with Public Works shall define which routes are viable alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, and other criteria as determined by Public Works. ***There are no alternative local residential street routes within the study area that provide motorists with a viable alternative route.***

Based on the screening criteria, further analysis will be required to assess whether the project would negatively affect residential streets. As indicated in Section III of the Scoping Document, the roadway segment of 117th Street/Holmes Avenue between Compton Avenue and 118th Street will be evaluated.

Section 4.4. – Additional Site Access Analysis

This section addresses project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

Section 4.4.2. – Screening Criteria

If the answer is yes to any of the following question, additional site access studies may be required to assess the project's site access requirements:

- Would the project provide a driveway on a rural cross section two-lane highway per the County's General Plan? ***No, the project does not provide a driveway on a rural cross section two-lane highway per the County's General Plan.***

- Does the project's land use require vehicles to queue on-site? ***No, the project's land uses do not require vehicles to queue on-site.***

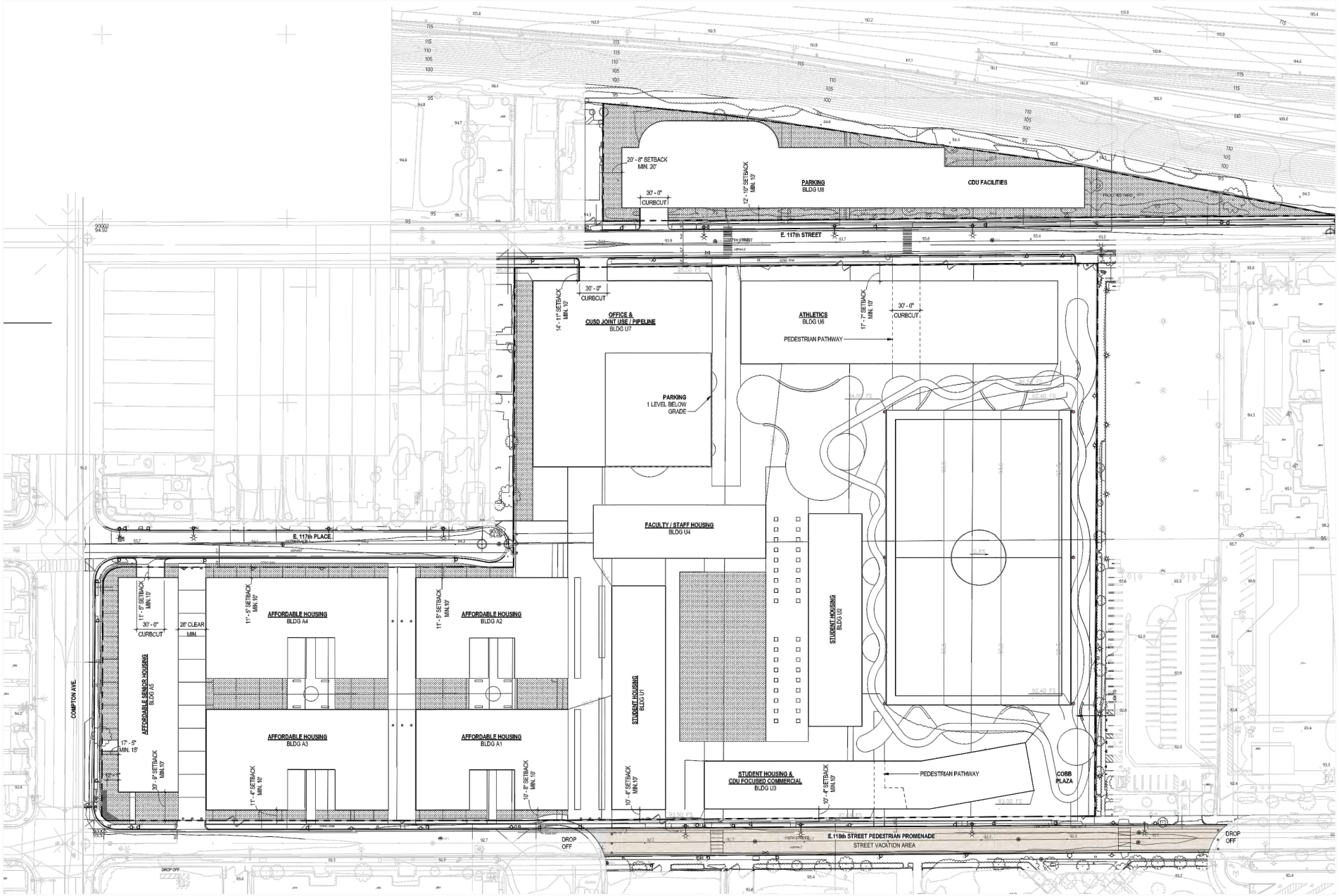
- Does the project's land use include intermittent events which may exceed the supply of on-site parking? ***No, the project's land uses do not include intermittent events which may exceed the supply of on-site parking. Occasional events such as new student orientations, student gatherings, CDU graduation, Jazz at Drew (an annual weekend concert event), and white coat ceremonies currently occur on the existing CDU campus. Similar to existing conditions, the Project team assumes that adequate parking will be provided for any events occurring on-site.***

The answer is no to all of the questions. Therefore, additional site access studies are not required to assess the project's site access requirements.

CONCLUSION

The results of the screening criteria for Sections 1, 3 and 4 from the LACOPWs' TIAG are summarized below:

- Section 1. – Introduction: The Project will require the preparation and submission of a Transportation Impact Analysis.
- Section 3. – California Environmental Quality Act (CEQA) Transportation Impact Analysis Process: Further analysis is not required, and a less than significant determination can be made.
- Section 4.1. – Operational Analysis: Further analysis will be required to assess whether the project would negatively affect project access and circulation.
- Section 4.2. – Construction Phase Analysis: The Project will be required to assess whether its construction activities would negatively affect project access and circulation
- Section 4.3. – Local Residential Street Cut-Through Analysis: Further analysis will be required to assess whether the project would negatively affect residential streets.
- Section 4.4. – Additional Site Access Analysis: Further analysis is not required to assess the project's site access requirements.

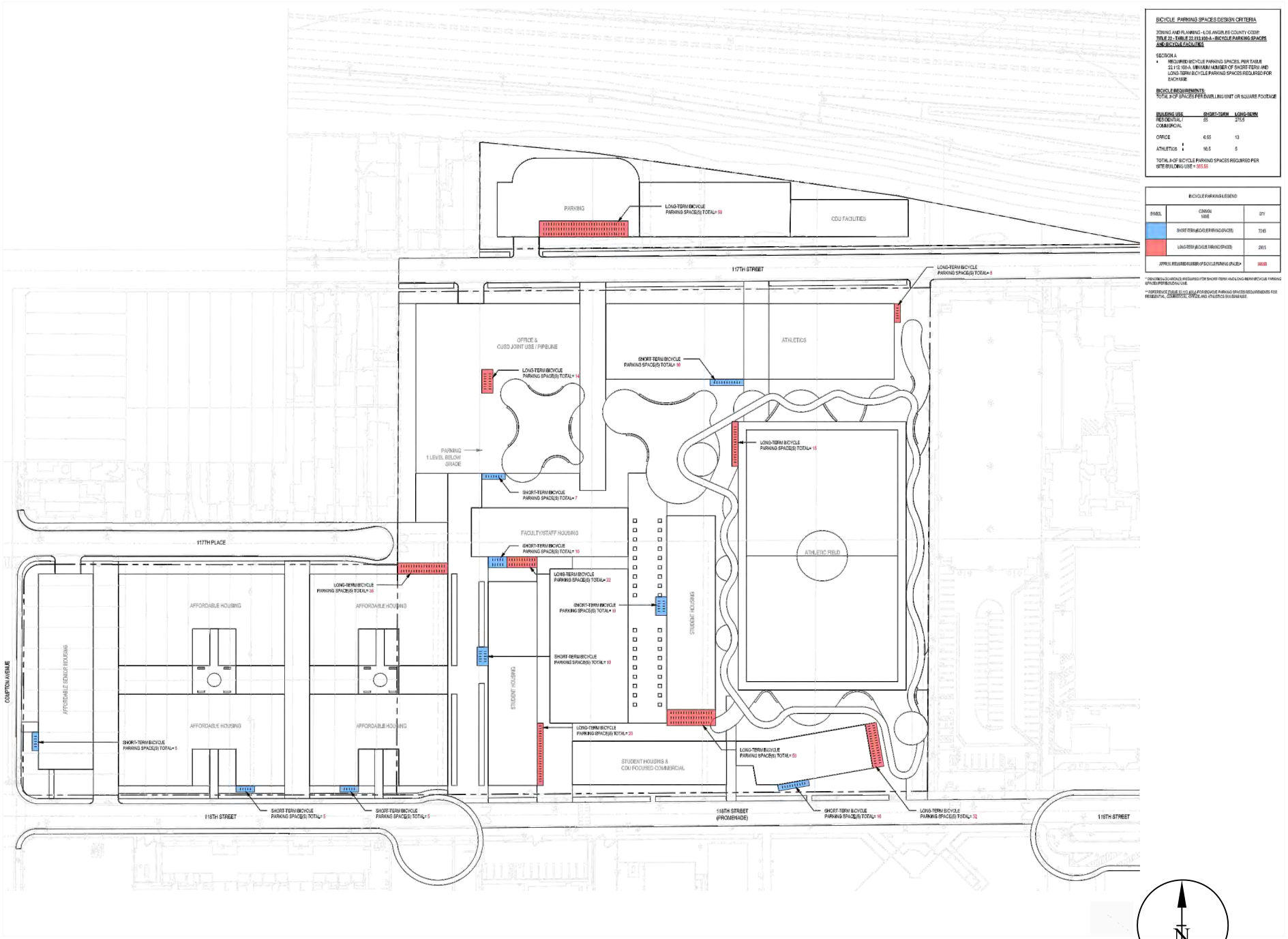


Source: Frederick Fisher and Partners

N
Not to Scale

ATTACHMENT 1A
PROJECT SITE PLAN

RAJU Associates, Inc.



Source: Frederick Fisher and Partners

ATTACHMENT 1B
PROJECT SITE PLAN - LOCATION OF BICYCLE PARKING

RAJU Associates, Inc.

ATTACHMENT 2
PRELIMINARY ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Affordable Housing - Family	200 d.u.	962	29	71	100	54	38	92
	Transit Trips (10%)	(96)	(3)	(7)	(10)	(5)	(4)	(9)
	subtotal	866	26	64	90	49	34	83
Affordable Housing - Senior	54 d.u.	175	6	4	10	3	2	5
	Transit Trips (10%)	(18)	(1)	0	(1)	0	0	0
	subtotal	157	5	4	9	3	2	5
Student Housing (250 d.u.)	426 bedrooms	1,095	14	16	30	42	47	89
	Transit Trips (10%)	(110)	(1)	(2)	(3)	(4)	(5)	(9)
	subtotal	985	13	14	27	38	42	80
Multifamily - Faculty/Staff Housing	55 d.u.	250	5	15	20	13	8	21
	Transit Trips (10%)	(25)	0	(2)	(2)	(1)	(1)	(2)
	subtotal	225	5	13	18	12	7	19
Office [1]	116,000 s.f.	1,257	155	21	176	28	139	167
	Transit Trips (10%)	(126)	(16)	(2)	(18)	(3)	(14)	(17)
	subtotal	1,131	139	19	158	25	125	150
Retail (University Oriented)	10,270 s.f.	559	15	9	24	34	34	68
	Transit Trips (10%)	(56)	(1)	(1)	(2)	(3)	(4)	(7)
	* *Internal Capture (90%)* [2]	(453)	(12)	(7)	(19)	(28)	(27)	(55)
	subtotal	50	2	1	3	3	3	6
Community Center/Athletic Facilities	48,100 s.f.	1,386	61	31	92	57	63	120
	Transit Trips (10%)	(139)	(6)	(3)	(9)	(6)	(6)	(12)
	* *Internal Capture (90%)* [3]	(1,123)	(50)	(25)	(75)	(46)	(51)	(97)
	subtotal	124	5	3	8	5	6	11
Soccer Field	1 field	71	1	0	1	11	5	16
	Transit Trips (10%)	(7)	0	0	0	(1)	(1)	(2)
	subtotal	64	1	0	1	10	4	14
Facilities/Services [4]	11,500 s.f.	-	-	-	-	-	-	-
Project Net Trip Generation Total		**3,602**	**196**	**118**	**314**	**145**	**223**	**368**
Trip Rates [5]								
Student Housing (ITE Land Use 226)	Trips per bedroom	2.57	46%	54%	0.07	47%	53%	0.21
Multifamily Mid-Rise (ITE Land Use 221)	Trips per d.u.	4.54	23%	77%	0.37	61%	39%	0.39
Affordable Housing - Family (ITE 223)	Trips per d.u.	4.81	29%	71%	0.50	59%	41%	0.46
Affordable Housing - Senior (ITE Land Use 223) [6]	Trips per d.u.	3.24	58%	42%	0.18	61%	39%	0.09
Soccer Field (ITE Land Use 488)	Trips per field	71.33	61%	39%	0.99	66%	34%	16.43
Recreational Community Center (ITE Land Use 495)	Trips per 1,000 s.f.	28.82	66%	34%	1.91	47%	53%	2.50
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	10.84	88%	12%	1.52	17%	83%	1.44
Retail <40 ksf (ITE Land Use 822)	Trips per 1,000 s.f.	54.45	60%	40%	2.36	50%	50%	6.59

* Internal capture trips determined after reduction of transit/walk trips.

[1] The office building also include 5,000 square feet of community space. This community space would contain the University's existing Pipeline Program offices, gathering space and storage, currently located within the existing campus. This existing use is proposed to move to a new location within the ground level of the proposed office building. No new trips are anticipated.

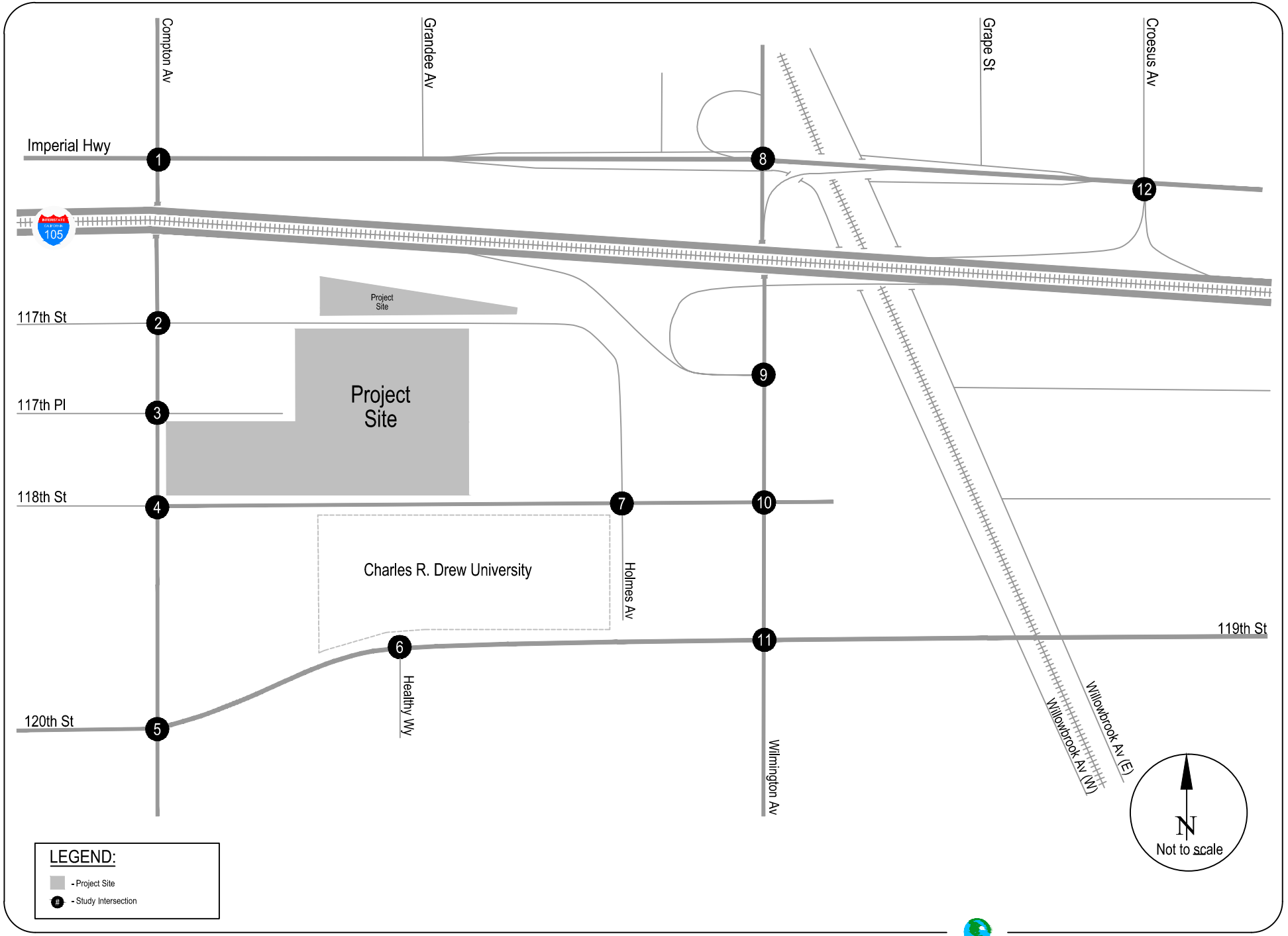
[2] The university-oriented retail would serve the needs of students living within the student housing buildings, and also the wider Charles R. Drew University campus student, staff, and faculty needs. Minimal outside patrons are anticipated. Only employee trips would be external. Therefore, an internal capture of 90% was utilized for retail use, assuming that they would be walking to the university-oriented retail use.

[3] The 5,000 square-foot university-oriented community space in the student housing building is anticipated to be a space for student gatherings and events, similar to those that currently occur on-site. Minimal outside patrons are anticipated. Therefore, an internal capture of 90% was utilized for this use, assuming that they would all be walking to the university-oriented community use. Additionally, the facilities within the athletics building would be primarily for use by Charles R. Drew University students, staff, faculty and their guests. Minimal outside patrons are anticipated. Therefore, an internal capture of 90% was utilized for this use, assuming that they would be walking to this use.

[4] Existing facilities/services building is proposed to move to new location within Project site and would generate minimal trips.

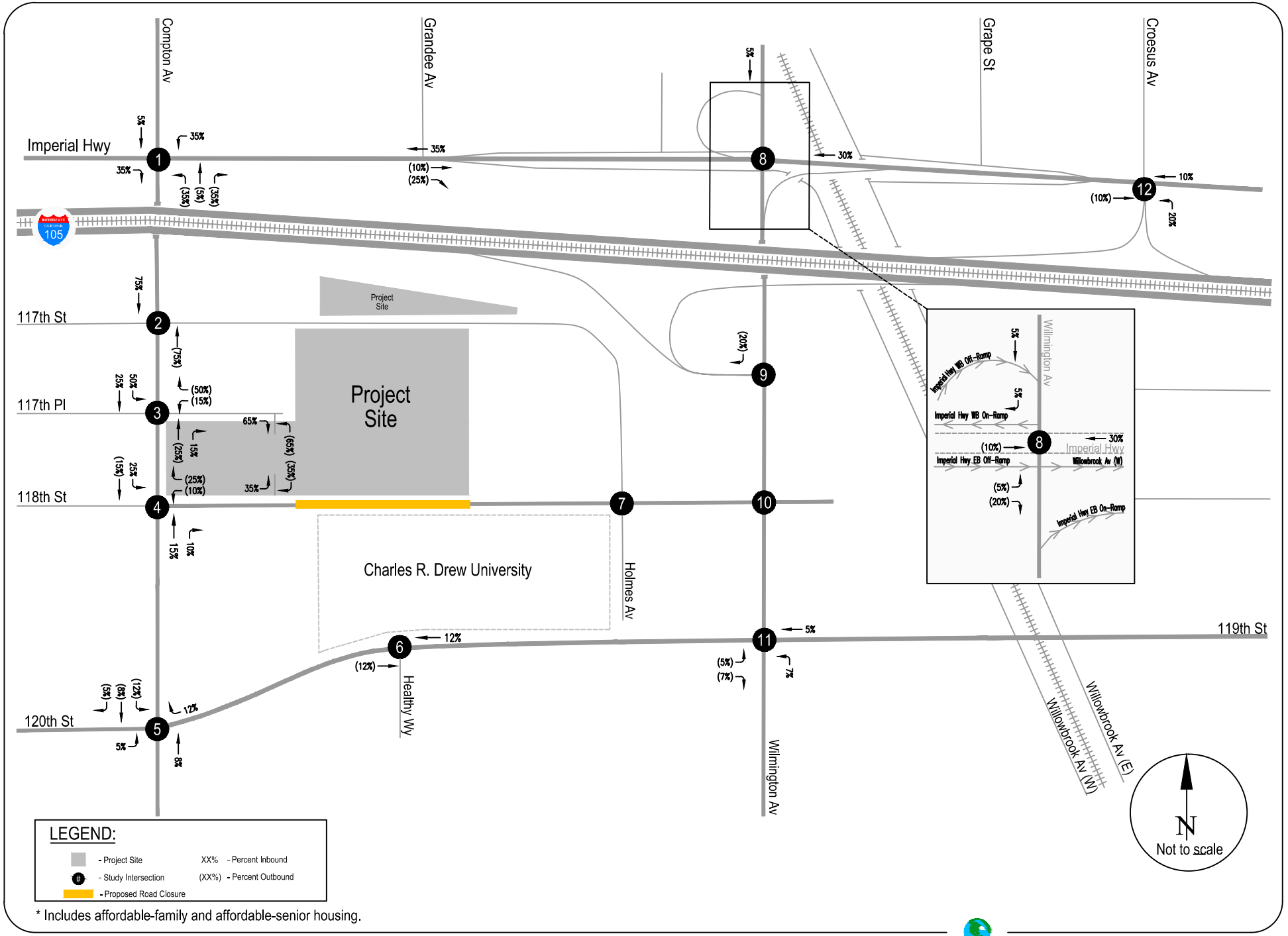
[5] *Trip Generation Manual*, 11th Edition, ITE 2021, unless otherwise noted.

[6] ITE *Trip Generation Manual* does not provide a daily trip generation rate for this use. Therefore, conservatively, Senior Housing (ITE Land Use 252) daily trip generation rate was utilized to determine the daily trips for this use.



ATTACHMENT 3
LOCATION OF STUDY INTERSECTIONS

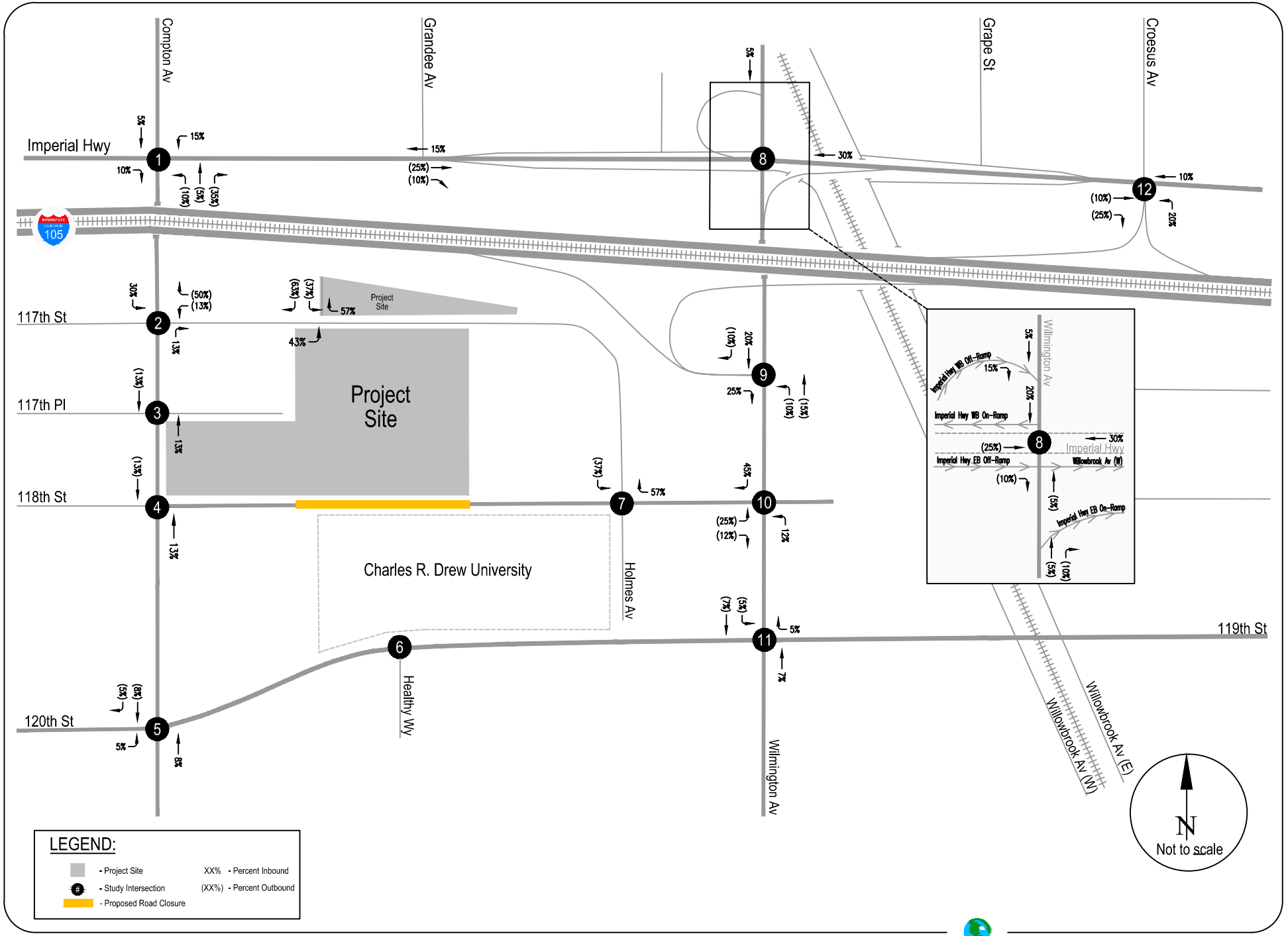
RAJU Associates, Inc.



* Includes affordable-family and affordable-senior housing.

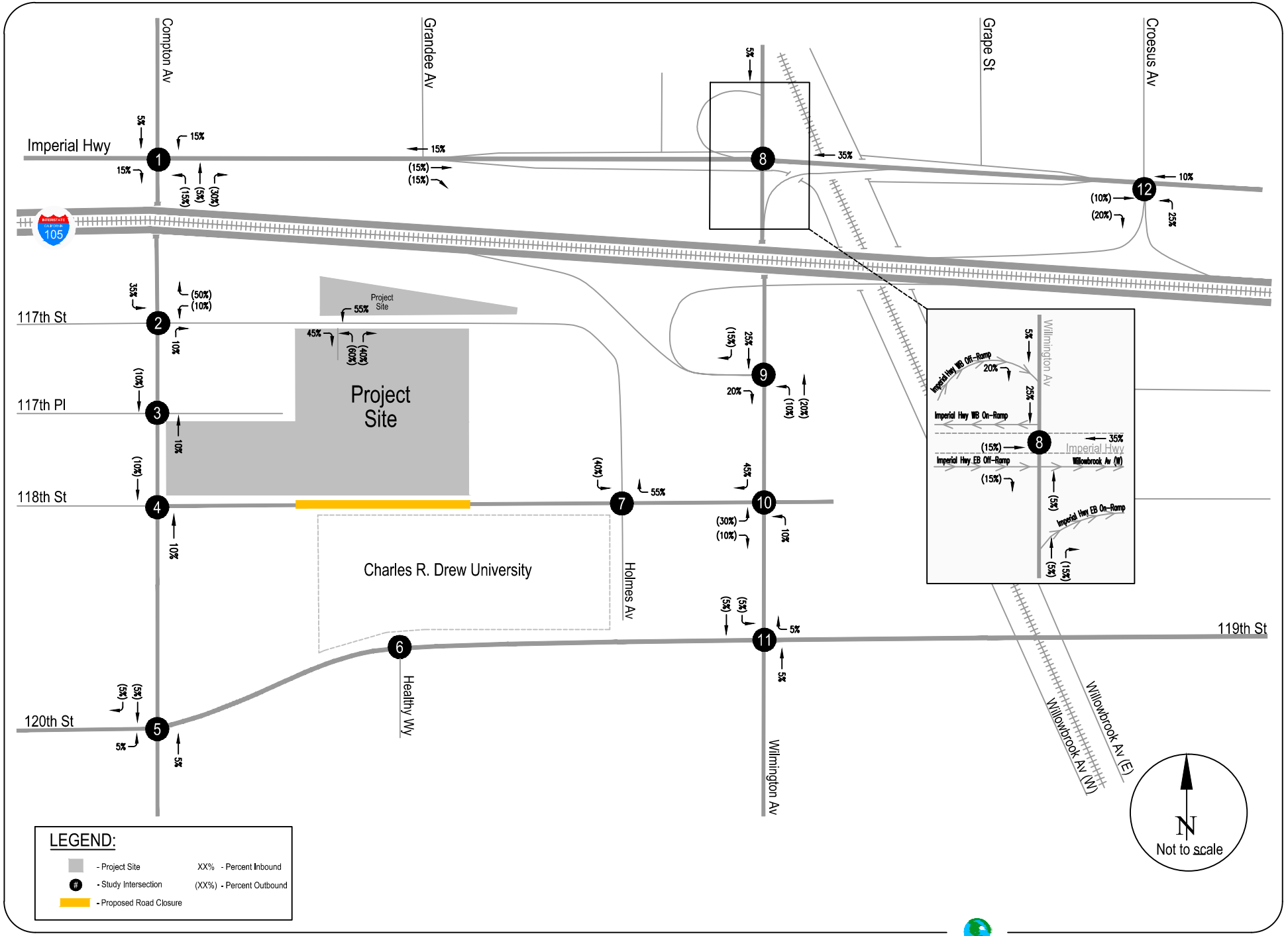
ATTACHMENT 4A
PROJECT TRIP DISTRIBUTION - AFFORDABLE HOUSING

RAJU Associates, Inc.



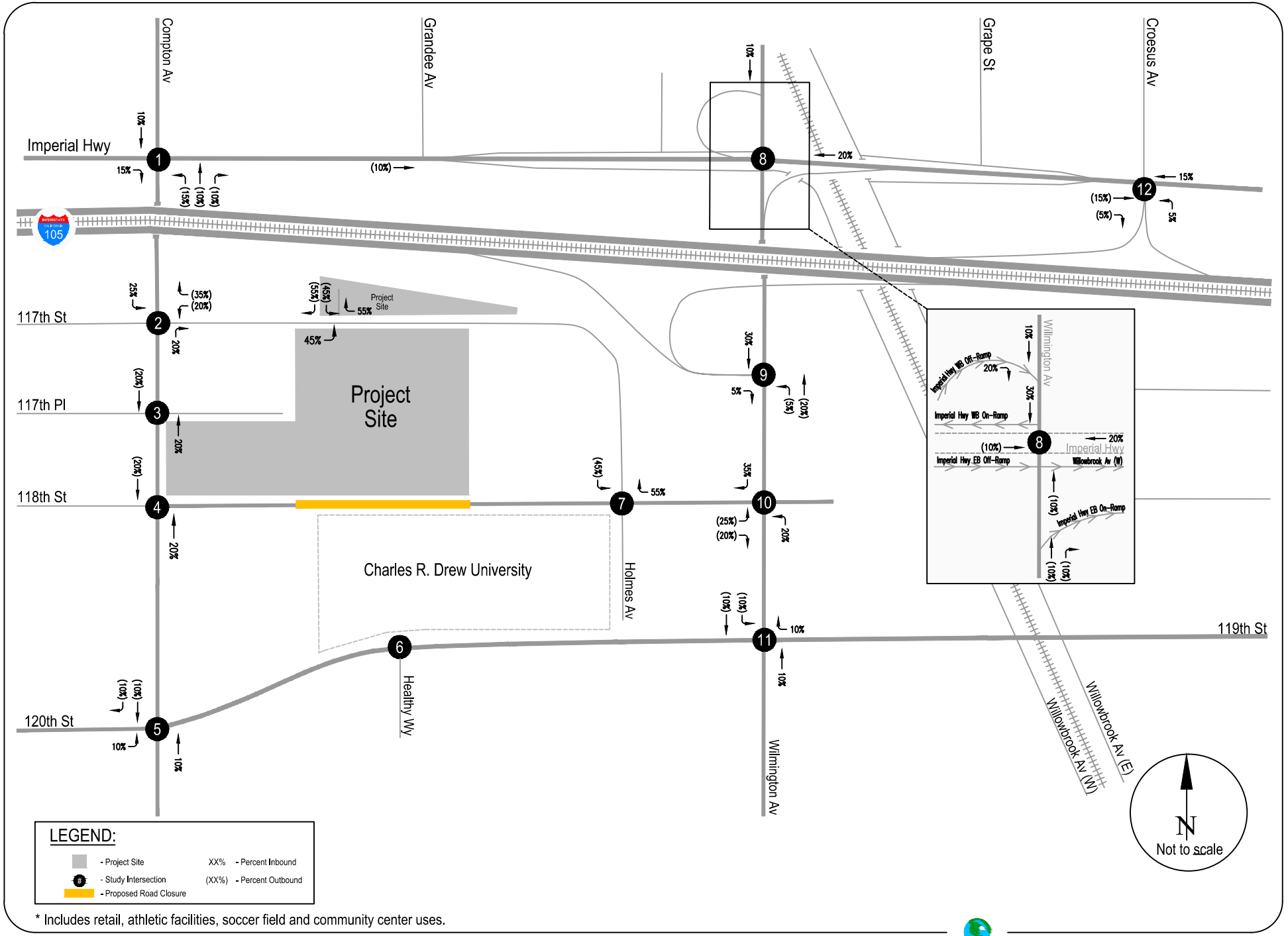
ATTACHMENT 4B
PROJECT TRIP DISTRIBUTION - STUDENT AND MULTIFAMILY - FACILITY / STAFF HOUSING

RAJU Associates, Inc.



ATTACHMENT 4C
PROJECT TRIP DISTRIBUTION - OFFICE USE

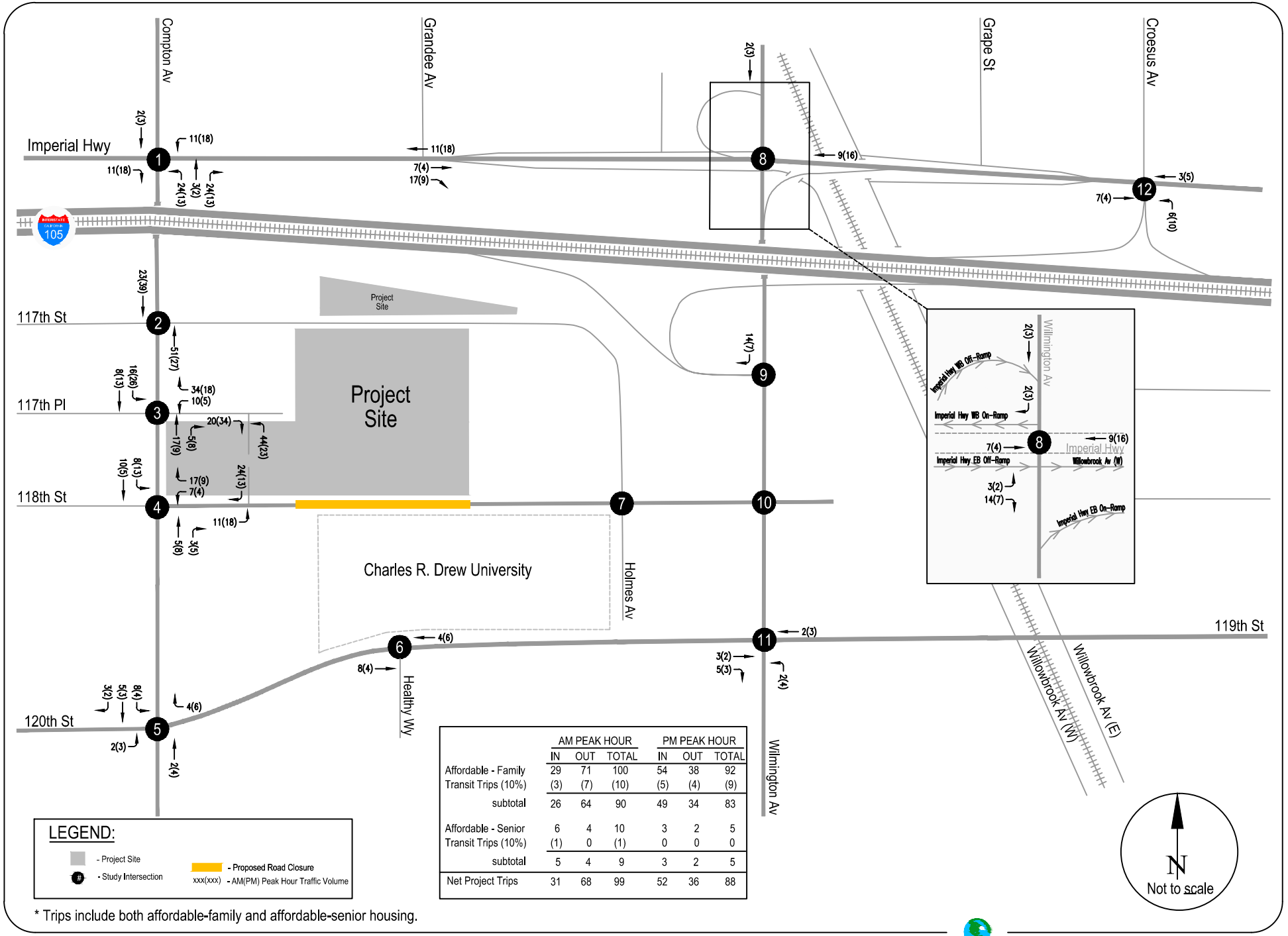
RAJU Associates, Inc.



* Includes retail, athletic facilities, soccer field and community center uses.

ATTACHMENT 4D
PROJECT TRIP DISTRIBUTION - UNIVERSITY RELATED USE

RAJU Associates, Inc.

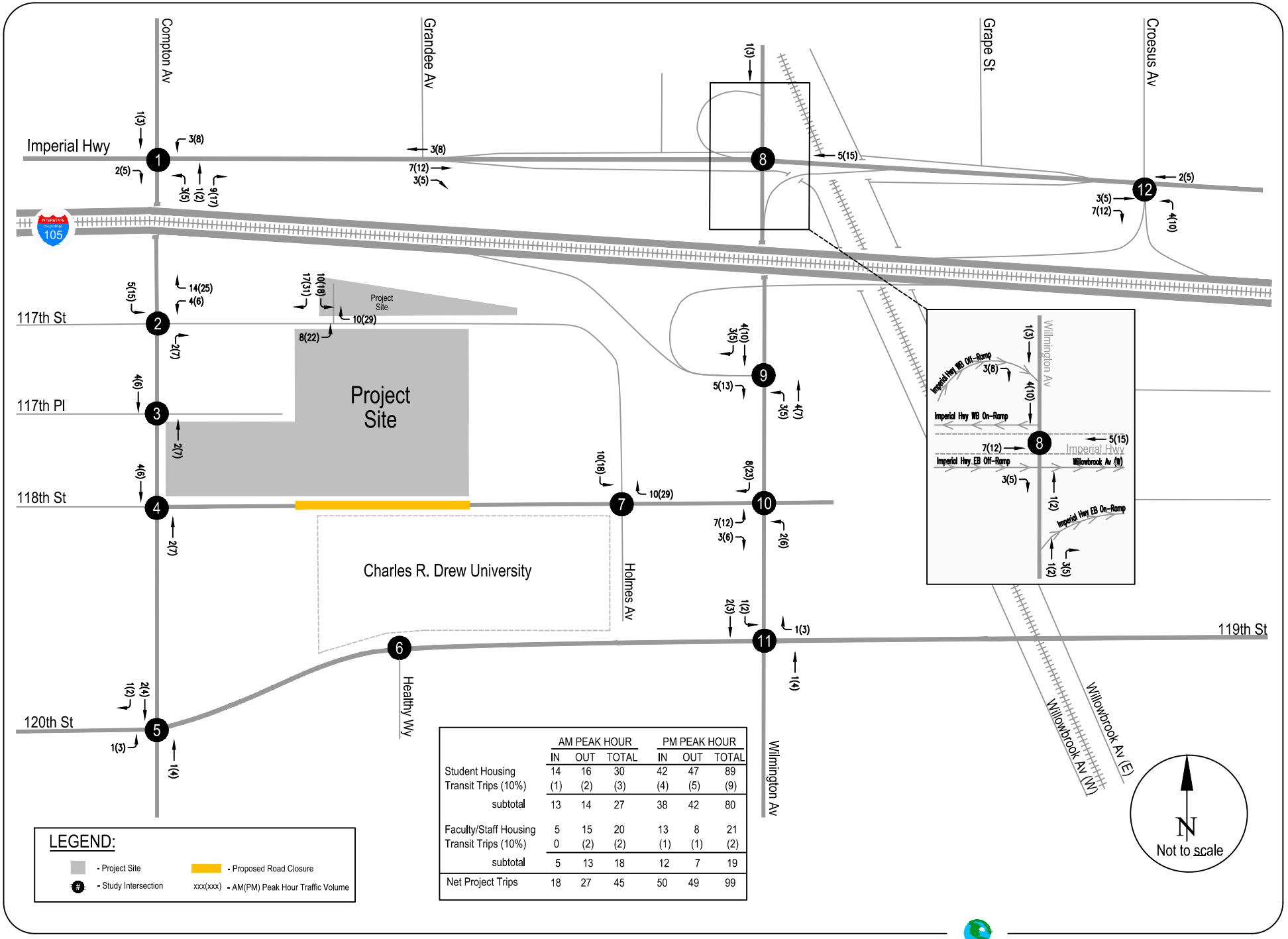


	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Affordable - Family	29	71	100	54	38	92
Transit Trips (10%)	(3)	(7)	(10)	(5)	(4)	(9)
subtotal	26	64	90	49	34	83
Affordable - Senior	6	4	10	3	2	5
Transit Trips (10%)	(1)	0	(1)	0	0	0
subtotal	5	4	9	3	2	5
Net Project Trips	31	68	99	52	36	88

* Trips include both affordable-family and affordable-senior housing.

ATTACHMENT 5A
AFFORDABLE HOUSING PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

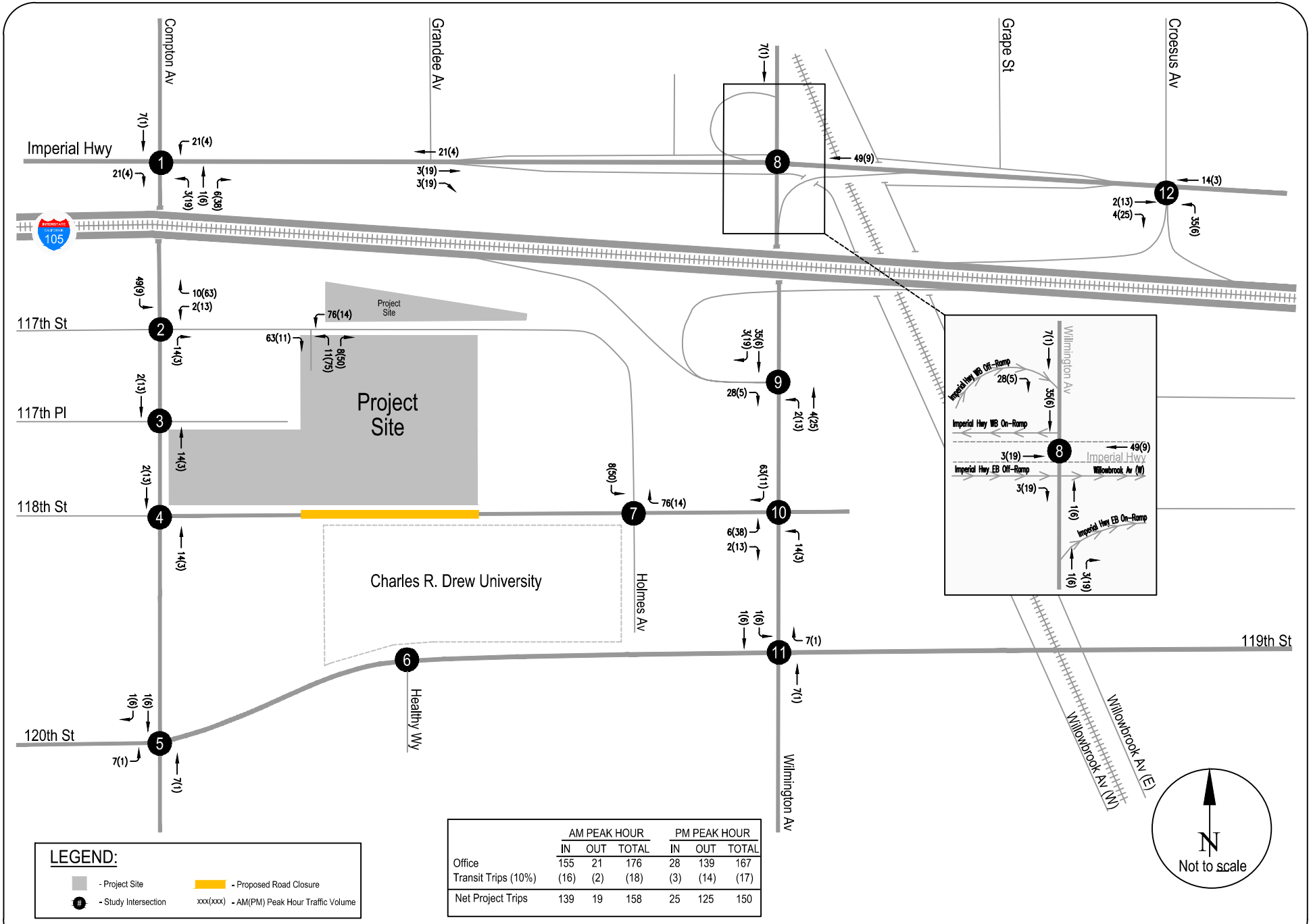
RAJU Associates, Inc.



	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Student Housing	14	16	30	42	47	89
Transit Trips (10%)	(1)	(2)	(3)	(4)	(5)	(9)
subtotal	13	14	27	38	42	80
Faculty/Staff Housing	5	15	20	13	8	21
Transit Trips (10%)	0	(2)	(2)	(1)	(1)	(2)
subtotal	5	13	18	12	7	19
Net Project Trips	18	27	45	50	49	99

ATTACHMENT 5B
STUDENT AND MULTIFAMILY - FACULTY/STAFF HOUSING PROJECT ONLY TRIPS
- PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.



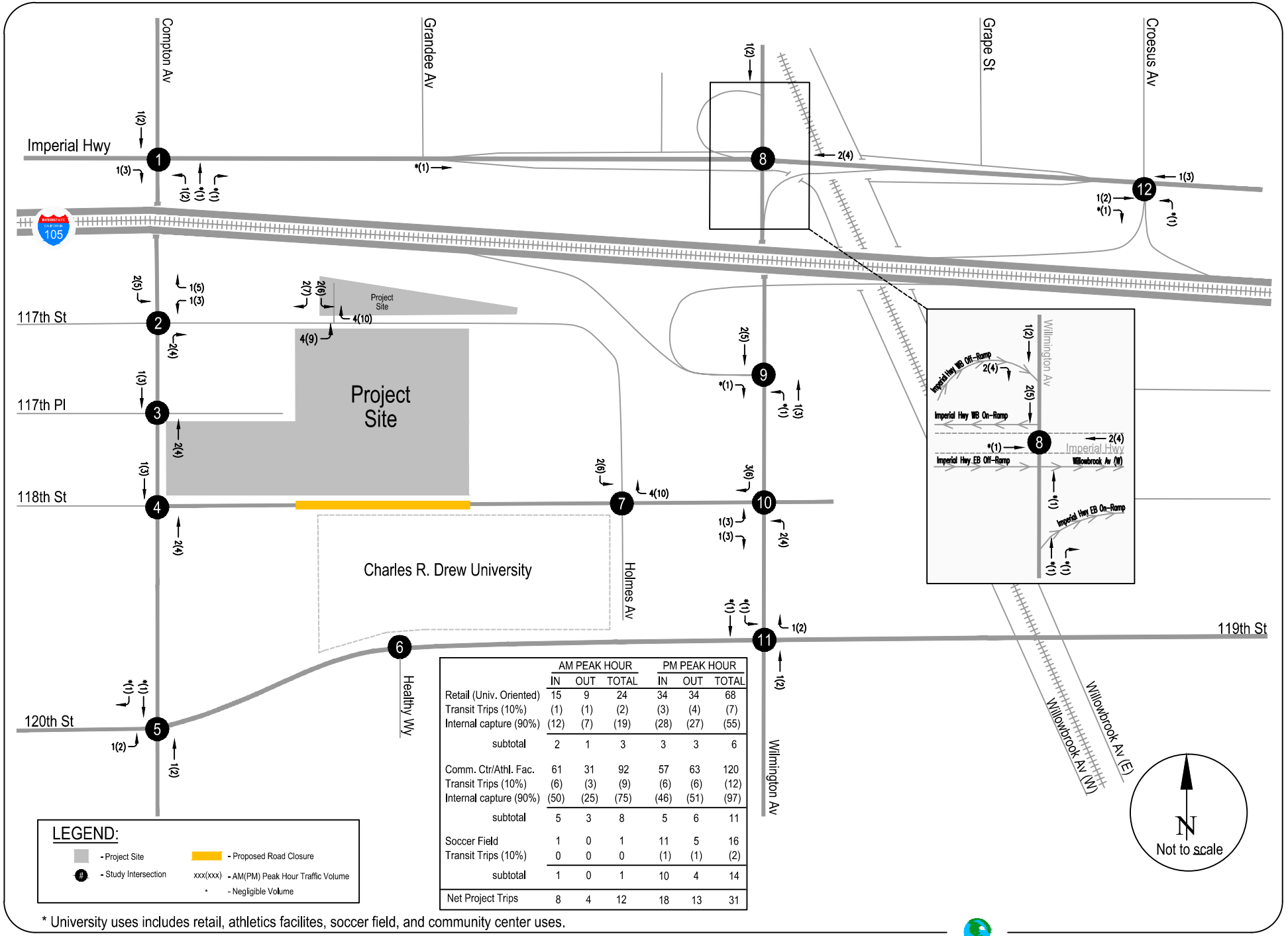
LEGEND:

- Project Site
- Study Intersection
- Proposed Road Closure
- xxx(xxx) - AM(PM) Peak Hour Traffic Volume

	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Office	155	21	176	28	139	167
Transit Trips (10%)	(16)	(2)	(18)	(3)	(14)	(17)
Net Project Trips	139	19	158	25	125	150

ATTACHMENT 5C
OFFICE PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

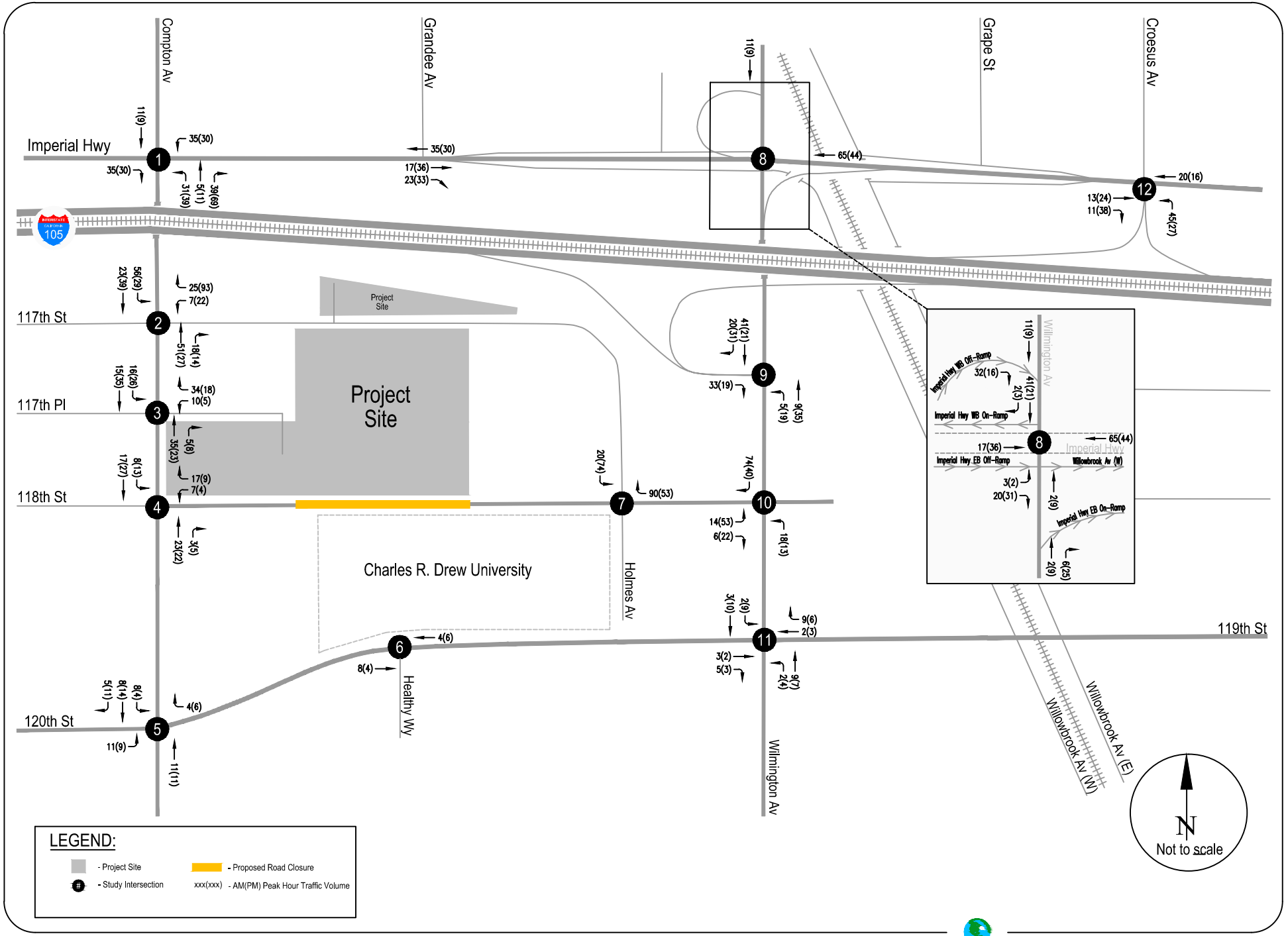


	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Retail (Univ. Oriented)	15	9	24	34	34	68
Transit Trips (10%)	(1)	(1)	(2)	(3)	(4)	(7)
Internal capture (90%)	(12)	(7)	(19)	(28)	(27)	(55)
subtotal	2	1	3	3	3	6
Comm. Ctr/Athl. Fac.	61	31	92	57	63	120
Transit Trips (10%)	(6)	(3)	(9)	(6)	(6)	(12)
Internal capture (90%)	(50)	(25)	(75)	(46)	(51)	(97)
subtotal	5	3	8	5	6	11
Soccer Field	1	0	1	11	5	16
Transit Trips (10%)	0	0	0	(1)	(1)	(2)
subtotal	1	0	1	10	4	14
Net Project Trips	8	4	12	18	13	31

* University uses includes retail, athletics facilites, soccer field, and community center uses.

ATTACHMENT 5D
UNIVERSITY USES PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.



ATTACHMENT 6
TOTAL PROJECT ONLY TRIPS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

ATTACHMENT 7

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Charles R Drew University Wellness and Education Campus Project	2023

Parcel Number (TAZ# 21548100)

6149014900, 6149014903, 6149014904, 6149014906, 6149012901

Project Land Use Information

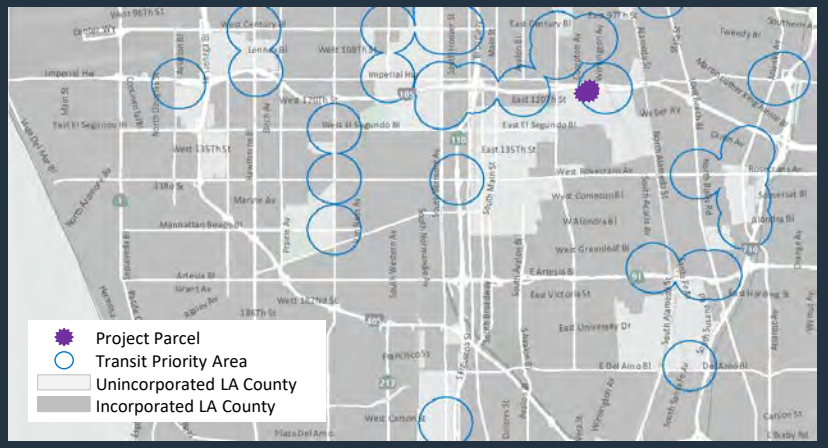
	Values	Unit
Residential - Single-Family Housing		DU
Residential - Multifamily Housing		DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services		KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)	3,659	Daily Trips

Project Daily Trips: 3,659

Screening Criteria for County of Los Angeles

	Value
Is the project screened in a Transit Priority Area?	Yes
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	N/A
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

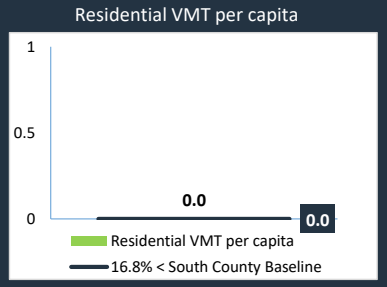
Project Location and VMT Information

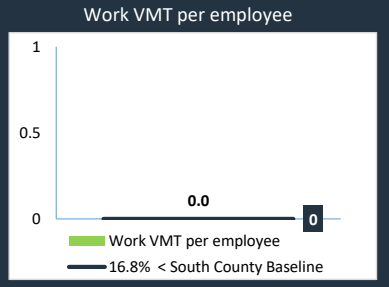


Project Summary Information

South County Residential VMT Baseline (11.9) % Threshold for Screening

South County Work VMT Baseline (16.2) % Threshold for Screening





The project is presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis is not required. However other site access analysis may be required. Please refer to Transportation Impact Analysis Guidelines on how to proceed forward.

FEHR & PEERS

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year	Parcel Number (TAZ# 21548100)
Charles R Drew University Wellness and Education Campus Project	2023	6149014900, 6149014903, 6149014904, 6149014906, 6149012901

Project Land Use TPA Secondary Information

	Values	Additional Info on Secondary Information
Does the project have a Floor Area Ratio less than 0.75? [1]	No	Determine from Project Site Plan
Does the project provide more parking than required by the County Code? [1]	No	Please contact the Department of Regional Planning for parking requirements
Is the project inconsistent with the SCAG RTP/SCS? [1]	No	Contact Public Works to determine how to check for consistency with the SCAG RTP/SCS
Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units? [1]	No	The total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project.

Note:

[1] As referenced in the Governor's Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

The project is presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis is not required. However other site access analysis may be required. Please refer to Transportation Impact Analysis Guidelines on how to proceed forward.

FEHR PEERS

ATTACHMENT 8
LIST OF RELATED PROJECTS

Map No.	Project Name	Location	Description
County of Los Angeles [1]			
1	Residential Project	2454 E. 115th Place	Construction of a new duplex and 4 car garage.
2	Residential Project	2436 E. 115th Place	Construction of a new duplex and 3 car garage.
3	Residential Project	1601 E. 117th Street / 11668 Compton Avenue	Construction of a 100-unit 4-story multifamily rental building. Six (6) units will be restricted to rents affordable to Very Low Income (VLI) Households.
4	Residential Project	1633 E. 117th Place	Demolish existing single family dwelling and construct 4-story residential apartment building with 14 units, which include 4 VLI units.
5	Residential Project	2032 E. 119th Street	Construction of 9 Single-Family Residential (SFR) units and 2 ADUs, replacing existing 1 SFR.
6	Residential Project	2223 E. 119th Street	Construction of three SFR dwelling units and one duplex.
7	Charles R. Drew University New Health Professions Education Building	1731 E. 120th Street	The proposed project involves demolishing the existing two modular buildings (9,628 square feet), and constructing a five-story, 92,618 square-foot Health Professions Building.
8	Residential Project	11649 Antwerp Avenue	Construction of a new 3-story SFR and new 3-story duplex.
9	Residential Project	11653 Antwerp Avenue	Construction of a 3-story duplex (front), 3-story duplex (middle) and 2-story two ADU (rear).
10	Residential Project	12600/12630 S. Compton Avenue	Construction of 6 units (3 duplexes) and new community center building
11	Residential Project	11909 S. Willowbrook Avenue	Construction of a one-story, seven (7) unit affordable multifamily building.
12	Residential Project	12503 S. Willowbrook Avenue	Construction of three multifamily dwelling units.
City of Los Angeles [2]			
13	Residential Project	11840 S. Central Avenue	Construction of 70 affordable dwelling units, replacing two duplexes.

* Includes related projects approximately 0.5 miles from the farthest outlying study intersections.
[1] Related projects obtained from County of Los Angeles Regional Planning, September 2023.
[2] Source: City of Los Angeles Department of Transportation, September 2023; Urbanize LA website, September 2023.

APPENDIX B

Intersection Lane Configurations

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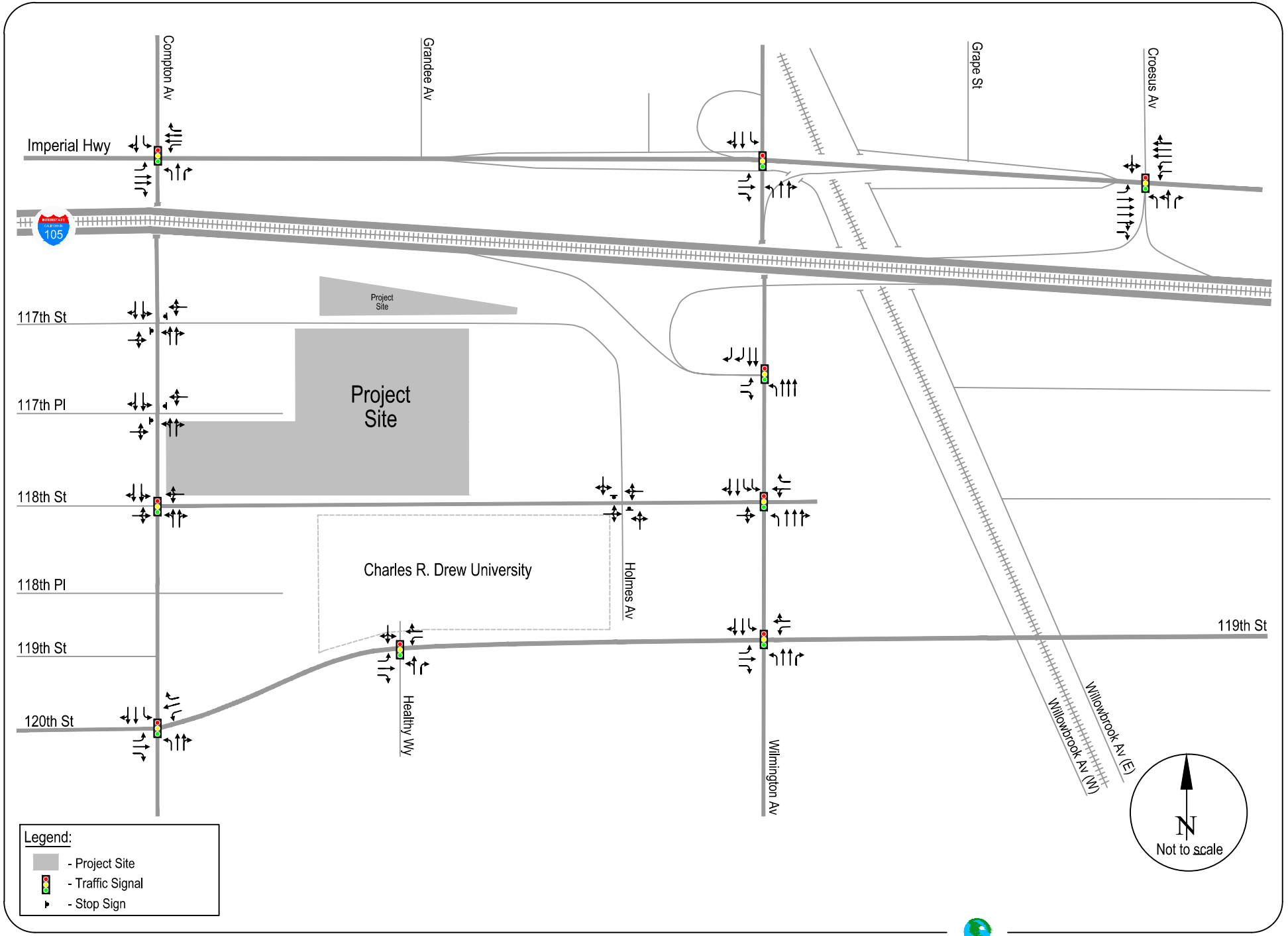


APPENDIX B
EXISTING INTERSECTION LANE CONFIGURATIONS

RAJU Associates, Inc.

APPENDIX C

Existing Traffic Counts

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Compton
EAST & WEST: Imperial

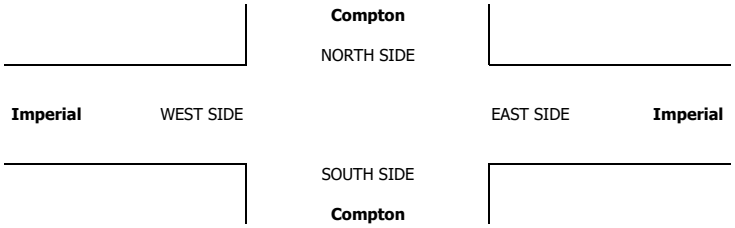
PROJECT #: SC3970
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Compton			SOUTHBOUND Compton			EASTBOUND Imperial			WESTBOUND Imperial				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	15	50	30	50	43	32	24	83	15	38	241	55	676	0	0	1	0	1
	7:15 AM	25	62	39	65	59	49	19	85	16	47	282	40	788	0	0	0	0	0
	7:30 AM	22	60	32	51	69	30	24	111	42	37	247	39	764	0	0	0	0	0
	7:45 AM	26	85	38	47	64	17	23	135	54	45	305	30	869	0	0	1	0	1
	8:00 AM	31	79	38	47	104	25	21	131	45	52	233	35	841	0	0	0	0	0
	8:15 AM	39	89	41	44	91	30	19	129	45	43	251	37	858	0	0	0	0	0
	8:30 AM	22	63	40	49	55	38	24	130	20	37	204	38	720	0	0	1	0	1
	8:45 AM	14	53	25	37	50	27	20	112	14	55	206	49	662	0	0	0	0	0
	VOLUMES	194	541	283	390	535	248	174	916	251	354	1,969	323	6,178	0	0	3	0	3
	APPROACH %	19%	53%	28%	33%	46%	21%	13%	68%	19%	13%	74%	12%						
	APP/DEPART	1,018	/	1,035	1,173	/	1,140	1,341	/	1,589	2,646	/	2,414	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	118	313	149	189	328	102	87	506	186	177	1,036	141	3,332					
	APPROACH %	20%	54%	26%	31%	53%	16%	11%	65%	24%	13%	77%	10%						
	PEAK HR FACTOR		0.858			0.879			0.919			0.891		0.959					
	APP/DEPART	580	/	540	619	/	691	779	/	844	1,354	/	1,257	0					
PM	4:00 PM	33	64	73	51	78	26	29	345	24	23	179	72	997	0	0	0	0	0
	4:15 PM	25	88	71	45	72	32	19	315	28	26	216	72	1,009	0	0	0	0	0
	4:30 PM	29	81	96	40	67	31	29	352	25	23	190	56	1,019	0	0	0	0	0
	4:45 PM	28	83	97	46	63	23	27	314	33	24	172	71	981	0	0	0	0	0
	5:00 PM	44	65	82	34	75	36	25	333	24	12	170	62	962	0	0	0	0	0
	5:15 PM	38	85	88	45	61	33	24	334	29	21	184	59	1,001	0	0	0	0	0
	5:30 PM	17	78	72	40	61	30	18	371	24	25	205	65	1,006	0	0	0	0	0
	5:45 PM	23	78	66	43	61	19	34	310	20	27	171	78	930	0	0	0	0	0
	VOLUMES	237	622	645	344	538	230	205	2,674	207	181	1,487	535	7,905	0	0	0	0	0
	APPROACH %	16%	41%	43%	31%	48%	21%	7%	87%	7%	8%	67%	24%						
	APP/DEPART	1,504	/	1,362	1,112	/	926	3,086	/	3,663	2,203	/	1,954	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	115	316	337	182	280	112	104	1,326	110	96	757	271	4,006					
	APPROACH %	15%	41%	44%	32%	49%	20%	7%	86%	7%	9%	67%	24%						
	PEAK HR FACTOR		0.923			0.926			0.948			0.895		0.983					
	APP/DEPART	768	/	691	574	/	486	1,540	/	1,845	1,124	/	984	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	1	5	5	12	1	0	5	4	10	0	1	0	1	2
	7:15 AM	1	2	1	2	6	1	2	1	2	6	0	0	0	0	0
	7:30 AM	7	2	2	5	16	5	2	1	5	13	2	0	1	0	3
	7:45 AM	0	1	2	0	3	0	1	2	0	3	0	0	0	0	0
	8:00 AM	7	2	6	7	22	5	2	3	6	16	2	0	3	1	6
	8:15 AM	6	1	2	4	13	5	0	2	3	10	1	1	0	1	3
	8:30 AM	1	0	3	2	6	1	0	2	2	5	0	0	1	0	1
	8:45 AM	4	0	2	2	8	4	0	1	2	7	0	0	1	0	1
	TOTAL	27	9	23	27	86	22	7	17	24	70	5	2	6	3	16
PM	4:00 PM	8	5	6	3	22	8	4	4	3	19	0	1	2	0	3
	4:15 PM	7	4	2	7	20	6	3	2	7	18	1	1	0	0	2
	4:30 PM	13	3	5	6	27	13	3	5	6	27	0	0	0	0	0
	4:45 PM	4	2	3	4	13	3	2	3	3	11	1	0	0	1	2
	5:00 PM	5	2	5	2	14	5	2	5	2	14	0	0	0	0	0
	5:15 PM	7	3	3	4	17	6	2	2	3	13	1	1	1	1	4
	5:30 PM	3	2	0	4	9	3	2	0	4	9	0	0	0	0	0
	5:45 PM	2	0	1	0	3	1	0	0	0	1	1	0	1	0	2
	TOTAL	49	21	25	30	125	45	18	21	28	112	4	3	4	2	13

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Compton
EAST & WEST: 117th Street

PROJECT #: SC3970
LOCATION #: 2
CONTROL: STOP E/W

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND Compton			SOUTHBOUND Compton			EASTBOUND 117th Street			WESTBOUND 117th Street				U-TURNS				
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	89	1	2	93	1	2	0	0	0	0	5	193	0	0	0	0	0
	7:15 AM	1	111	2	5	115	1	3	1	1	0	0	10	250	0	2	0	0	2
	7:30 AM	1	104	2	4	143	1	3	0	0	2	1	7	268	0	1	0	0	1
	7:45 AM	0	139	3	3	158	2	5	0	0	4	0	5	319	0	0	0	0	0
	8:00 AM	4	137	5	7	189	4	6	0	2	3	1	5	363	0	0	0	0	0
	8:15 AM	1	162	3	4	174	1	3	0	1	2	1	4	356	0	0	0	0	0
	8:30 AM	0	122	3	3	107	2	2	0	0	0	0	2	241	0	0	0	0	0
	8:45 AM	3	93	1	2	113	1	2	0	1	0	0	1	217	1	0	0	0	1
	VOLUMES	10	957	20	30	1,092	13	26	1	5	11	3	39	2,207	1	3	0	0	4
	APPROACH %	1%	97%	2%	3%	96%	1%	81%	3%	16%	21%	6%	74%						
	APP/DEPART	987	/	1,025	1,135	/	1,109	32	/	48	53	/	25	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	6	542	13	18	664	8	17	0	3	11	3	21	1,306					
	APPROACH %	1%	97%	2%	3%	96%	1%	85%	0%	15%	31%	9%	60%						
	PEAK HR FACTOR		0.845			0.863			0.625			0.875		0.899					
	APP/DEPART	561	/	581	690	/	678	20	/	30	35	/	17	0					
PM	4:00 PM	1	166	0	7	116	1	2	0	0	1	0	2	296	1	0	0	0	1
	4:15 PM	3	179	4	4	119	2	2	0	4	3	0	4	324	1	0	0	0	1
	4:30 PM	0	200	1	4	106	4	2	0	0	2	0	5	324	0	0	0	0	0
	4:45 PM	0	203	4	8	110	2	0	0	0	2	0	5	334	0	0	0	0	0
	5:00 PM	1	180	1	3	104	4	2	1	1	0	0	9	306	0	0	0	0	0
	5:15 PM	1	207	6	4	102	4	0	0	1	1	0	5	331	0	0	0	0	0
	5:30 PM	2	165	5	7	102	1	1	0	3	1	0	4	291	0	0	0	0	0
	5:45 PM	0	159	1	3	101	2	3	1	3	4	0	5	282	0	0	0	0	0
	VOLUMES	8	1,459	22	40	860	20	12	2	12	14	0	39	2,488	2	0	0	0	2
	APPROACH %	1%	98%	1%	4%	93%	2%	46%	8%	46%	26%	0%	74%						
	APP/DEPART	1,489	/	1,510	920	/	888	26	/	64	53	/	26	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	2	790	12	19	422	14	4	1	2	5	0	24	1,295					
	APPROACH %	0%	98%	1%	4%	93%	3%	57%	14%	29%	17%	0%	83%						
	PEAK HR FACTOR		0.939			0.948			0.438			0.806		0.969					
	APP/DEPART	804	/	818	455	/	429	7	/	32	29	/	16	0					

Compton

NORTH SIDE

117th Street WEST SIDE EAST SIDE **117th Street**

SOUTH SIDE

Compton

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	1	1	3	0	1	1	1	3	0	0	0	0	0
	7:15 AM	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0
	7:30 AM	0	0	1	1	2	0	0	0	1	1	0	0	1	0	1
	7:45 AM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	8:00 AM	1	2	1	4	8	1	2	1	4	8	0	0	0	0	0
	8:15 AM	0	1	4	0	5	0	0	2	0	2	0	1	2	0	3
	8:30 AM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	8:45 AM	0	0	2	2	4	0	0	1	2	3	0	0	1	0	1
	TOTAL	1	4	14	12	31	1	3	10	12	26	0	1	4	0	5
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	3	2	2	7	0	0	2	0	2	0	3	0	2	5
	4:30 PM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	4:45 PM	0	2	0	4	6	0	2	0	3	5	0	0	0	1	1
	5:00 PM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	5:15 PM	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	0	5	6	11	22	0	2	6	8	16	0	3	0	3	6

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Compton
EAST & WEST: 117th Place

PROJECT #: SC3970
LOCATION #: 3
CONTROL: STOP E/W

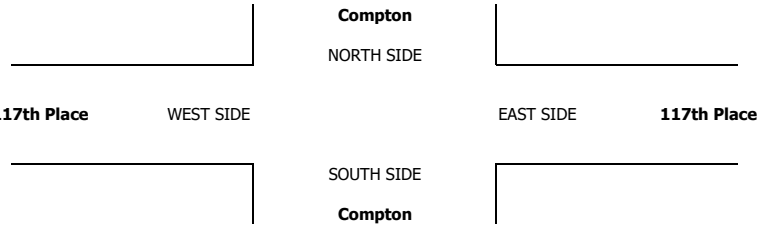
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND Compton			SOUTHBOUND Compton			EASTBOUND 117th Place			WESTBOUND 117th Place				U-TURNS				
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	86	0	0	92	0	2	0	1	1	0	2	184	0	0	0	0	0
	7:15 AM	0	111	0	0	115	1	3	0	0	0	0	0	230	0	0	0	0	0
	7:30 AM	0	104	0	0	145	0	2	0	1	0	0	2	254	0	0	0	0	0
	7:45 AM	2	138	0	1	160	0	1	0	2	0	0	3	307	1	0	0	0	1
	8:00 AM	2	143	2	3	187	3	1	0	0	0	0	2	343	0	0	0	0	0
	8:15 AM	2	164	0	1	174	1	2	0	1	0	0	1	346	0	0	0	0	0
	8:30 AM	0	123	2	0	107	0	1	1	0	1	0	1	236	0	0	0	0	0
	8:45 AM	1	98	1	0	115	0	2	1	1	0	0	0	219	1	0	0	0	1
	VOLUMES	7	967	5	5	1,095	5	14	2	6	2	0	11	2,119	2	0	0	0	2
	APPROACH %	1%	99%	1%	0%	99%	0%	64%	9%	27%	15%	0%	85%						
	APP/DEPART	979	/	992	1,105	/	1,105	22	/	12	13	/	10	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	6	549	2	5	666	4	6	0	4	0	0	8	1,250					
	APPROACH %	1%	99%	0%	1%	99%	1%	60%	0%	40%	0%	0%	100%						
	PEAK HR FACTOR		0.839			0.874			0.833			0.667		0.903					
	APP/DEPART	557	/	563	675	/	671	10	/	7	8	/	9	0					
PM	4:00 PM	0	165	0	1	116	0	0	0	1	1	0	1	285	0	1	0	0	1
	4:15 PM	1	183	2	3	120	4	2	1	1	0	0	0	317	0	2	0	0	2
	4:30 PM	0	198	1	3	102	2	2	0	1	1	0	0	310	0	1	0	0	1
	4:45 PM	0	204	0	3	107	2	2	0	0	0	0	1	319	0	1	0	0	1
	5:00 PM	0	177	1	2	101	2	3	1	0	0	0	2	289	0	0	0	0	0
	5:15 PM	2	210	2	3	96	4	2	0	0	0	0	1	320	0	1	0	0	1
	5:30 PM	0	169	0	2	97	6	1	0	1	0	1	1	278	0	1	0	0	1
	5:45 PM	0	158	0	1	104	2	2	1	1	0	0	1	270	0	1	0	0	1
	VOLUMES	3	1,464	6	18	843	22	14	3	5	2	1	7	2,388	0	8	0	0	8
	APPROACH %	0%	99%	0%	2%	95%	2%	64%	14%	23%	20%	10%	70%						
	APP/DEPART	1,473	/	1,493	883	/	850	22	/	19	10	/	26	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	2	789	4	11	406	10	9	1	1	1	0	4	1,238					
	APPROACH %	0%	99%	1%	3%	95%	2%	82%	9%	9%	20%	0%	80%						
	PEAK HR FACTOR		0.929			0.953			0.688			0.625		0.967					
	APP/DEPART	795	/	805	427	/	408	11	/	13	5	/	12	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0
	7:30 AM	0	0	1	1	2	0	0	0	1	1	0	0	1	0	1
	7:45 AM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	8:00 AM	0	0	3	5	8	0	0	3	5	8	0	0	0	0	0
	8:15 AM	0	1	3	2	6	0	1	2	2	5	0	0	1	0	1
	8:30 AM	0	0	2	2	4	0	0	2	2	4	0	0	0	0	0
	8:45 AM	0	0	2	2	4	0	0	1	2	3	0	0	1	0	1
	TOTAL	0	1	15	14	30	0	1	12	14	27	0	0	3	0	3
PM	4:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:15 PM	0	2	6	0	8	0	1	3	0	4	0	1	3	0	4
	4:30 PM	1	0	0	2	3	0	0	0	2	2	1	0	0	0	1
	4:45 PM	0	4	5	6	15	0	4	5	5	14	0	0	0	1	1
	5:00 PM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	1	6	11	12	30	0	5	8	11	24	1	1	3	1	6

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Compton
EAST & WEST: 118th

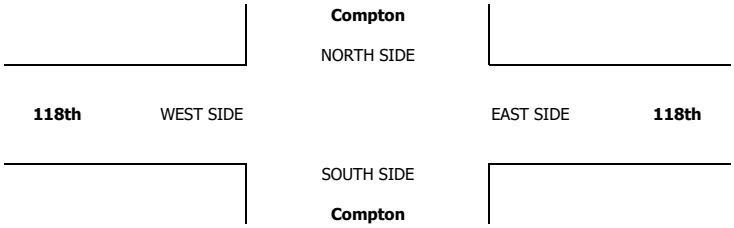
PROJECT #: SC3970
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Compton			SOUTHBOUND Compton			EASTBOUND 118th			WESTBOUND 118th				U-TURNS				
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	83	8	7	86	1	0	0	0	2	0	3	190	0	0	0	0	0
	7:15 AM	1	105	3	6	108	1	1	4	3	4	1	5	242	0	0	0	0	0
	7:30 AM	1	94	6	20	124	1	5	4	7	1	4	5	272	0	0	0	0	0
	7:45 AM	2	126	10	10	153	0	7	9	15	7	6	7	352	0	0	0	0	0
	8:00 AM	2	131	17	14	171	2	7	7	21	7	9	10	398	0	0	0	0	0
	8:15 AM	1	151	19	22	150	2	8	9	13	8	3	8	394	0	0	0	0	0
	8:30 AM	3	113	15	11	95	1	5	5	7	7	4	8	274	0	0	0	0	0
	8:45 AM	0	92	14	6	110	1	4	6	4	4	2	5	248	0	0	0	0	0
	VOLUMES	10	895	92	96	997	9	37	44	70	40	29	51	2,370	0	0	0	0	0
	APPROACH %	1%	90%	9%	9%	90%	1%	25%	29%	46%	33%	24%	43%						
	APP/DEPART	997	/	983	1,102	/	1,107	151	/	232	120	/	48	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	8	521	61	57	569	5	27	30	56	29	22	33	1,418					
	APPROACH %	1%	88%	10%	9%	90%	1%	24%	27%	50%	35%	26%	39%						
	PEAK HR FACTOR		0.863			0.844			0.807			0.808		0.891					
	APP/DEPART	590	/	581	631	/	654	113	/	148	84	/	35	0					
PM	4:00 PM	3	151	8	8	108	2	2	4	3	9	6	12	316	0	0	0	0	0
	4:15 PM	2	172	7	9	110	2	6	3	2	14	6	8	341	0	0	0	0	0
	4:30 PM	2	181	8	8	95	1	6	3	7	9	3	13	336	0	0	0	0	0
	4:45 PM	6	192	10	9	96	1	3	3	3	6	0	10	339	0	0	0	0	0
	5:00 PM	0	161	10	1	98	2	4	7	6	13	3	14	319	0	0	0	0	0
	5:15 PM	2	200	12	9	82	4	2	2	0	11	7	13	344	0	0	0	0	0
	5:30 PM	0	155	8	6	89	2	6	5	3	4	0	9	287	0	0	0	0	0
	5:45 PM	1	139	7	9	93	3	7	4	4	6	0	12	285	0	0	0	0	0
	VOLUMES	16	1,351	70	59	771	17	36	31	28	72	25	91	2,567	0	0	0	0	0
	APPROACH %	1%	94%	5%	7%	91%	2%	38%	33%	29%	38%	13%	48%						
	APP/DEPART	1,437	/	1,478	847	/	871	95	/	160	188	/	58	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	10	734	40	27	371	8	15	15	16	39	13	50	1,338					
	APPROACH %	1%	94%	5%	7%	91%	2%	33%	33%	35%	38%	13%	49%						
	PEAK HR FACTOR		0.916			0.958			0.676			0.823		0.972					
	APP/DEPART	784	/	799	406	/	426	46	/	82	102	/	31	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	3	0	0	0	3	3	0	0	0	3	0	0	0	0	0
	7:15 AM	0	4	3	1	8	0	4	3	1	8	0	0	0	0	0
	7:30 AM	1	1	0	2	4	0	1	0	1	2	1	0	0	1	2
	7:45 AM	1	7	2	7	17	1	7	2	7	17	0	0	0	0	0
	8:00 AM	2	2	3	2	9	2	2	3	2	9	0	0	0	0	0
	8:15 AM	2	2	5	1	10	2	2	4	1	9	0	0	1	0	1
	8:30 AM	4	2	5	0	11	4	0	4	0	8	0	2	1	0	3
	8:45 AM	2	3	1	4	10	2	3	1	4	10	0	0	0	0	0
	TOTAL	15	21	19	17	72	14	19	17	16	66	1	2	2	1	6
PM	4:00 PM	5	1	2	4	12	5	1	2	3	11	0	0	0	1	1
	4:15 PM	0	17	0	1	18	0	17	0	1	18	0	0	0	0	0
	4:30 PM	3	1	4	14	22	3	1	4	14	22	0	0	0	0	0
	4:45 PM	1	4	0	2	7	1	2	0	1	4	0	2	0	1	3
	5:00 PM	2	0	1	1	4	2	0	1	1	4	0	0	0	0	0
	5:15 PM	2	2	1	4	9	2	2	1	4	9	0	0	0	0	0
	5:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:45 PM	0	6	0	0	6	0	6	0	0	6	0	0	0	0	0
	TOTAL	14	31	8	26	79	14	29	8	24	75	0	2	0	2	4

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Compton
EAST & WEST: 120th

PROJECT #: SC3970
LOCATION #: 5
CONTROL: SIGNAL

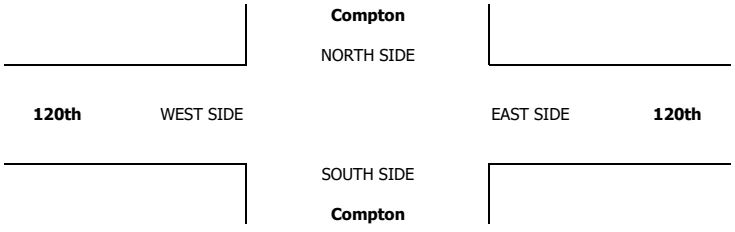
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND Compton			SOUTHBOUND Compton			EASTBOUND 120th			WESTBOUND 120th				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	32	58	10	16	50	19	24	39	13	6	45	12	324	0	0	0	0	0
	7:15 AM	32	75	11	19	68	27	20	40	24	11	59	12	398	0	0	0	0	0
	7:30 AM	30	61	16	32	70	20	32	77	21	4	87	22	472	0	0	0	0	0
	7:45 AM	45	77	23	50	96	24	44	102	29	10	85	23	608	0	0	0	0	0
	8:00 AM	34	70	25	48	87	21	39	130	28	13	103	39	637	0	0	0	0	0
	8:15 AM	22	82	33	54	90	20	38	141	41	25	133	59	738	0	1	0	0	1
	8:30 AM	18	32	15	45	59	22	35	111	22	16	118	58	551	0	1	0	0	1
	8:45 AM	18	44	14	30	69	14	21	73	20	10	51	33	397	0	0	0	0	0
	VOLUMES	231	499	147	294	589	167	253	713	198	95	681	258	4,125	0	2	0	0	2
	APPROACH %	26%	57%	17%	28%	56%	16%	22%	61%	17%	9%	66%	25%						
	APP/DEPART	877	/	1,012	1,050	/	882	1,164	/	1,152	1,034	/	1,079	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	119	261	96	197	332	87	156	484	120	64	439	179	2,534					
	APPROACH %	25%	55%	20%	32%	54%	14%	21%	64%	16%	9%	64%	26%						
	PEAK HR FACTOR		0.821			0.906			0.864			0.786		0.858					
	APP/DEPART	476	/	598	616	/	516	760	/	775	682	/	645	0					
PM	4:00 PM	22	70	14	29	72	21	57	123	47	13	64	28	560	0	0	0	0	0
	4:15 PM	19	83	12	22	76	22	57	107	49	8	58	24	537	0	0	0	0	0
	4:30 PM	32	88	22	20	68	26	75	97	40	8	72	33	581	0	0	0	0	0
	4:45 PM	16	69	14	16	67	26	82	109	44	3	54	18	518	0	0	0	0	0
	5:00 PM	18	89	15	15	73	27	78	103	38	12	63	25	556	0	0	0	0	0
	5:15 PM	16	81	11	20	59	19	85	110	54	4	69	31	559	0	0	0	0	0
	5:30 PM	17	69	11	15	65	20	64	104	43	9	55	11	483	0	0	0	0	0
	5:45 PM	22	71	9	26	70	19	51	112	38	5	46	19	488	0	0	0	0	0
	VOLUMES	162	620	108	163	550	180	549	865	353	62	481	189	4,282	0	0	0	0	0
	APPROACH %	18%	70%	12%	18%	62%	20%	31%	49%	20%	8%	66%	26%						
	APP/DEPART	890	/	1,358	893	/	965	1,767	/	1,136	732	/	823	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	82	327	62	71	267	98	320	419	176	27	258	107	2,214					
	APPROACH %	17%	69%	13%	16%	61%	22%	35%	46%	19%	7%	66%	27%						
	PEAK HR FACTOR		0.829			0.948			0.919			0.867		0.953					
	APP/DEPART	471	/	754	436	/	470	915	/	552	392	/	438	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	4	2	4	0	10	4	2	4	0	10	0	0	0	0	0
	7:15 AM	3	0	1	0	4	3	0	1	0	4	0	0	0	0	0
	7:30 AM	8	3	6	5	22	8	3	6	4	21	0	0	0	1	1
	7:45 AM	13	4	21	1	39	13	3	21	1	38	0	1	0	0	1
	8:00 AM	21	3	15	8	47	21	3	14	8	46	0	0	1	0	1
	8:15 AM	56	26	75	14	171	56	24	75	14	169	0	2	0	0	2
	8:30 AM	10	11	28	4	53	10	11	28	4	53	0	0	0	0	0
	8:45 AM	10	7	7	9	33	10	7	7	9	33	0	0	0	0	0
	TOTAL	125	56	157	41	379	125	53	156	40	374	0	3	1	1	5
PM	4:00 PM	15	7	11	9	42	15	6	11	8	40	0	1	0	1	2
	4:15 PM	9	5	4	6	24	9	5	4	6	24	0	0	0	0	0
	4:30 PM	8	2	7	2	19	7	1	7	2	17	1	1	0	0	2
	4:45 PM	5	4	6	4	19	5	4	6	1	16	0	0	0	3	3
	5:00 PM	10	1	1	1	13	10	1	1	1	13	0	0	0	0	0
	5:15 PM	6	7	7	3	23	6	4	6	2	18	0	3	1	1	5
	5:30 PM	8	5	2	2	17	6	5	2	1	14	2	0	0	1	3
	5:45 PM	4	1	3	0	8	3	1	3	0	7	1	0	0	0	1
	TOTAL	65	32	41	27	165	61	27	40	21	149	4	5	1	6	16

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Healthy
EAST & WEST: 120th

PROJECT #: SC3970
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Healthy			SOUTHBOUND Healthy			EASTBOUND 120th			WESTBOUND 120th				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0.3	ST 0.3	SR 0.3	EL 1	ET 2	ER 0	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	0	9	1	0	0	0	49	4	10	62	1	140	0	0	0	0	0
	7:15 AM	5	0	10	0	1	0	1	47	9	16	62	0	151	0	0	0	0	0
	7:30 AM	9	0	16	0	0	1	1	77	4	16	93	0	217	0	0	0	0	0
	7:45 AM	6	0	11	0	0	1	5	123	10	25	102	0	283	0	0	0	0	0
	8:00 AM	8	0	18	1	1	1	3	117	12	20	124	2	307	0	0	0	0	0
	8:15 AM	24	0	19	2	0	5	11	116	19	20	132	1	349	0	0	4	0	4
	8:30 AM	29	0	22	1	0	4	11	87	12	30	75	2	273	0	0	8	3	11
	8:45 AM	14	0	12	1	0	2	6	78	17	16	87	0	233	0	0	3	0	3
	VOLUMES	99	0	117	6	2	14	38	694	87	153	737	6	1,953	0	0	15	3	18
	APPROACH %	46%	0%	54%	27%	9%	64%	5%	85%	11%	17%	82%	1%						
	APP/DEPART	216	/	29	22	/	239	819	/	820	896	/	865	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	67	0	70	4	1	11	30	443	53	95	433	5	1,212					
	APPROACH %	49%	0%	51%	25%	6%	69%	6%	84%	10%	18%	81%	1%						
	PEAK HR FACTOR		0.672			0.571			0.901			0.871		0.868					
	APP/DEPART	137	/	23	16	/	146	526	/	520	533	/	523	0					
PM	4:00 PM	16	0	35	1	0	1	0	147	7	17	63	0	287	0	0	0	0	0
	4:15 PM	9	0	25	2	0	1	0	126	5	10	61	0	239	0	0	0	0	0
	4:30 PM	16	0	22	1	0	0	0	125	6	7	67	0	244	0	0	0	0	0
	4:45 PM	11	0	23	1	0	0	1	117	4	7	54	1	219	0	0	1	0	1
	5:00 PM	9	0	21	4	0	2	4	130	1	8	73	1	253	0	0	0	0	0
	5:15 PM	8	0	18	0	0	1	1	116	5	9	83	0	241	0	0	0	0	0
	5:30 PM	5	0	11	0	0	0	3	116	4	7	58	0	204	0	0	3	0	3
	5:45 PM	7	0	21	0	0	1	5	132	4	9	48	0	227	0	0	3	1	4
	VOLUMES	81	0	176	9	0	6	14	1,009	36	74	507	2	1,914	0	0	7	1	8
	APPROACH %	32%	0%	68%	60%	0%	40%	1%	95%	3%	13%	87%	0%						
	APP/DEPART	257	/	9	15	/	109	1,059	/	1,195	583	/	601	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	52	0	105	5	0	2	1	515	22	41	245	1	989					
	APPROACH %	33%	0%	67%	71%	0%	29%	0%	96%	4%	14%	85%	0%						
	PEAK HR FACTOR		0.770			0.583			0.873			0.897		0.861					
	APP/DEPART	157	/	1	7	/	63	538	/	625	287	/	300	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	6	2	0	0	8	6	2	0	0	8	0	0	0	0	0
	7:15 AM	8	3	2	0	13	7	3	2	0	12	1	0	0	0	1
	7:30 AM	8	4	1	0	13	8	4	1	0	13	0	0	0	0	0
	7:45 AM	49	1	0	0	50	49	0	0	0	49	0	1	0	0	1
	8:00 AM	49	11	4	0	64	49	11	4	0	64	0	0	0	0	0
	8:15 AM	74	5	3	0	82	74	3	3	0	80	0	2	0	0	2
	8:30 AM	19	10	5	1	35	19	10	5	1	35	0	0	0	0	0
	8:45 AM	45	5	2	0	52	45	3	2	0	50	0	2	0	0	2
	TOTAL	258	41	17	1	317	257	36	17	1	311	1	5	0	0	6
PM	4:00 PM	36	2	2	0	40	36	2	2	0	40	0	0	0	0	0
	4:15 PM	21	6	8	0	35	21	6	8	0	35	0	0	0	0	0
	4:30 PM	14	5	4	0	23	13	3	4	0	20	1	2	0	0	3
	4:45 PM	10	5	3	0	18	9	5	2	0	16	1	0	1	0	2
	5:00 PM	7	5	2	0	14	7	5	2	0	14	0	0	0	0	0
	5:15 PM	5	5	1	0	11	5	3	1	0	9	0	2	0	0	2
	5:30 PM	7	1	2	0	10	5	1	2	0	8	2	0	0	0	2
	5:45 PM	2	4	1	0	7	1	2	1	0	4	1	2	0	0	3
	TOTAL	102	33	23	0	158	97	27	22	0	146	5	6	1	0	12

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Holmes
EAST & WEST: 118th

PROJECT #: SC3970
LOCATION #: 7
CONTROL: STOP N/S

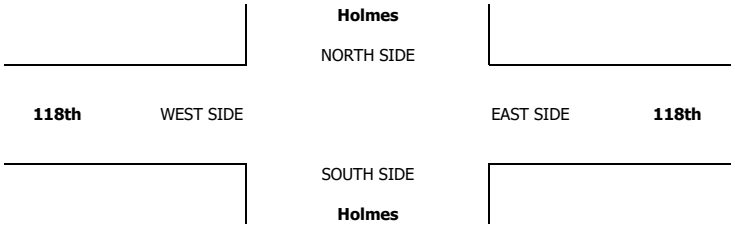
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND Holmes			SOUTHBOUND Holmes			EASTBOUND 118th			WESTBOUND 118th				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	0	0	4	0	1	0	8	2	3	10	0	29	0	0	0	0	0
	7:15 AM	0	0	1	2	0	1	0	6	1	0	12	1	24	0	0	0	0	0
	7:30 AM	1	0	0	4	0	2	0	14	0	3	18	4	46	0	0	0	1	1
	7:45 AM	0	1	0	10	0	3	0	17	3	0	35	4	73	0	0	0	0	0
	8:00 AM	0	0	1	6	0	3	1	25	0	2	50	4	92	0	0	0	0	0
	8:15 AM	0	0	0	8	0	3	1	22	0	2	39	2	77	0	0	0	0	0
	8:30 AM	0	0	0	2	0	0	2	21	1	1	38	1	66	0	0	0	0	0
	8:45 AM	1	0	0	1	0	3	1	13	1	1	30	2	53	0	0	0	0	0
	VOLUMES	3	1	2	37	0	16	5	126	8	12	232	18	460	0	0	0	1	1
	APPROACH %	50%	17%	33%	70%	0%	30%	4%	91%	6%	5%	89%	7%						
	APP/DEPART	6	/	24	53	/	19	139	/	166	262	/	251	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	0	1	1	26	0	9	4	85	4	5	162	11	308					
	APPROACH %	0%	50%	50%	74%	0%	26%	4%	91%	4%	3%	91%	6%						
	PEAK HR FACTOR		0.500			0.673			0.894			0.795		0.837					
	APP/DEPART	2	/	16	35	/	9	93	/	112	178	/	171	0					
PM	4:00 PM	1	0	0	6	1	2	1	32	0	1	15	2	61	0	0	0	0	0
	4:15 PM	0	0	1	2	0	2	2	22	0	1	19	1	50	0	0	0	0	0
	4:30 PM	0	0	2	1	0	1	0	25	0	5	12	6	52	0	0	0	2	2
	4:45 PM	1	0	1	4	1	2	1	24	0	0	13	6	53	0	1	0	0	1
	5:00 PM	2	0	1	3	0	1	3	55	1	1	10	5	82	0	1	1	0	2
	5:15 PM	0	0	2	5	0	4	0	31	1	3	18	6	70	0	0	0	1	1
	5:30 PM	0	1	2	4	1	2	0	28	0	1	8	4	51	0	0	0	0	0
	5:45 PM	0	0	1	4	0	2	3	25	2	0	12	1	50	0	0	0	0	0
	VOLUMES	4	1	10	29	3	16	10	242	4	12	107	31	469	0	2	1	3	6
	APPROACH %	27%	7%	67%	60%	6%	33%	4%	95%	2%	8%	71%	21%						
	APP/DEPART	15	/	43	48	/	16	256	/	282	150	/	128	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	3	0	6	13	1	8	4	135	2	9	53	23	257					
	APPROACH %	33%	0%	67%	59%	5%	36%	3%	96%	1%	11%	62%	27%						
	PEAK HR FACTOR		0.750			0.611			0.597			0.787		0.784					
	APP/DEPART	9	/	28	22	/	9	141	/	155	85	/	65	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	6	0	0	0	6	5	0	0	0	5	1	0	0	0	1
	7:15 AM	0	3	0	2	5	0	3	0	2	5	0	0	0	0	0
	7:30 AM	3	2	0	5	10	3	2	0	5	10	0	0	0	0	0
	7:45 AM	1	11	0	0	12	1	11	0	0	12	0	0	0	0	0
	8:00 AM	6	13	0	2	21	4	13	0	2	19	2	0	0	0	2
	8:15 AM	6	4	0	4	14	5	4	0	4	13	1	0	0	0	1
	8:30 AM	3	4	0	1	8	3	3	0	1	7	0	1	0	0	1
	8:45 AM	1	4	1	0	6	1	4	1	0	6	0	0	0	0	0
	TOTAL	26	41	1	14	82	22	40	1	14	77	4	1	0	0	5
PM	4:00 PM	1	5	0	1	7	1	5	0	1	7	0	0	0	0	0
	4:15 PM	2	11	1	0	14	2	9	0	0	11	0	2	1	0	3
	4:30 PM	6	3	1	2	12	2	3	1	2	8	4	0	0	0	4
	4:45 PM	5	5	1	1	12	4	4	1	0	9	1	1	0	1	3
	5:00 PM	5	4	1	0	10	4	4	1	0	9	1	0	0	0	1
	5:15 PM	0	5	1	1	7	0	5	1	1	7	0	0	0	0	0
	5:30 PM	2	3	0	4	9	2	3	0	4	9	0	0	0	0	0
	5:45 PM	0	3	0	1	4	0	3	0	1	4	0	0	0	0	0
	TOTAL	21	39	5	10	75	15	36	4	9	64	6	3	1	1	11

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

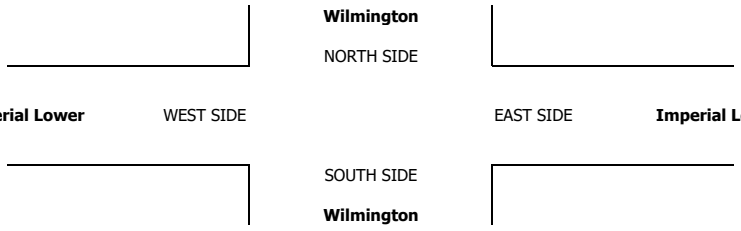
LOCATION: Willowbrook
NORTH & SOUTH: Wilmington
EAST & WEST: Imperial Highway Ramps
PROJECT #: SC3970
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Wilmington			SOUTHBOUND Wilmington			EASTBOUND Imperial Lower			WESTBOUND Imperial Lower				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	22	84	11	4	179	16	7	1	60	0	0	0	384	0	0	1	0	1
	7:15 AM	18	109	10	3	211	30	9	1	74	0	0	0	465	0	0	1	0	1
	7:30 AM	19	122	6	2	244	30	13	2	69	0	0	0	507	2	0	0	0	2
	7:45 AM	29	116	12	9	235	28	30	3	69	0	0	0	531	0	2	1	0	3
	8:00 AM	23	112	7	8	196	35	33	1	63	0	0	0	478	0	0	3	0	3
	8:15 AM	26	135	11	3	213	27	36	2	63	0	0	0	516	0	0	6	0	6
	8:30 AM	20	95	9	5	187	20	25	1	58	0	0	0	420	1	1	3	0	5
	8:45 AM	24	89	10	3	142	18	9	0	55	0	0	0	350	0	1	1	0	2
	VOLUMES	181	862	76	37	1,607	204	162	11	511	0	0	0	3,651	3	4	16	0	23
	APPROACH %	16%	77%	7%	2%	87%	11%	24%	2%	75%	0%	0%	0%						
	APP/DEPART	1,119	/	1,012	1,848	/	2,121	684	/	120	0	/	398	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	97	485	36	22	888	120	112	8	264	0	0	0	2,032					
	APPROACH %	16%	78%	6%	2%	86%	12%	29%	2%	69%	0%	0%	0%						
	PEAK HR FACTOR		0.898			0.933			0.941			0.000		0.957					
	APP/DEPART	618	/	589	1,030	/	1,154	384	/	64	0	/	225	0					
PM	4:00 PM	42	115	13	12	201	24	31	3	166	0	0	0	607	0	2	2	0	4
	4:15 PM	37	118	8	5	201	21	39	0	129	0	0	0	558	2	0	2	0	4
	4:30 PM	29	120	10	11	167	20	27	1	149	0	0	0	534	1	4	0	0	5
	4:45 PM	16	128	8	4	204	14	32	1	138	0	0	0	545	0	0	1	0	1
	5:00 PM	25	116	12	6	204	19	34	2	136	0	0	0	554	0	1	1	0	2
	5:15 PM	33	115	12	7	191	17	41	5	130	0	0	0	551	0	3	2	0	5
	5:30 PM	33	123	8	4	175	20	33	3	120	0	0	0	519	0	2	3	0	5
	5:45 PM	29	115	8	5	179	17	37	2	112	0	0	0	504	0	0	0	0	0
	VOLUMES	244	950	79	54	1,522	152	274	17	1,080	0	0	0	4,372	3	12	11	0	26
	APPROACH %	19%	75%	6%	3%	88%	9%	20%	1%	79%	0%	0%	0%						
	APP/DEPART	1,273	/	1,225	1,728	/	2,605	1,371	/	138	0	/	404	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	124	481	39	32	773	79	129	5	582	0	0	0	2,244					
	APPROACH %	19%	75%	6%	4%	87%	9%	18%	1%	81%	0%	0%	0%						
	PEAK HR FACTOR		0.947			0.932			0.895			0.000		0.924					
	APP/DEPART	644	/	611	884	/	1,358	716	/	70	0	/	205	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	5	9	1	4	19	5	8	0	4	17	0	1	1	0	2
	7:15 AM	3	3	1	0	7	3	3	1	0	7	0	0	0	0	0
	7:30 AM	3	1	3	0	7	2	1	3	0	6	1	0	0	0	1
	7:45 AM	9	0	5	4	18	8	0	4	2	14	1	0	1	2	4
	8:00 AM	6	2	2	7	17	5	1	2	5	13	1	1	0	2	4
	8:15 AM	3	0	0	5	8	2	0	0	1	3	1	0	0	4	5
	8:30 AM	1	2	4	2	9	0	2	3	1	6	1	0	1	1	3
	8:45 AM	1	1	5	1	8	0	1	2	0	3	1	0	3	1	5
	TOTAL	31	18	21	23	93	25	16	15	13	69	6	2	6	10	24
PM	4:00 PM	9	4	3	7	23	6	3	1	4	14	3	1	2	3	9
	4:15 PM	6	1	4	2	13	6	0	1	0	7	0	1	3	2	6
	4:30 PM	4	3	4	0	11	1	3	2	0	6	3	0	2	0	5
	4:45 PM	4	5	3	1	13	4	4	2	1	11	0	1	1	0	2
	5:00 PM	1	2	7	2	12	1	1	5	1	8	0	1	2	1	4
	5:15 PM	5	2	2	0	9	4	2	2	0	8	1	0	0	0	1
	5:30 PM	7	1	4	0	12	4	0	3	0	7	3	1	1	0	5
	5:45 PM	2	1	0	1	4	2	0	0	0	2	0	1	0	1	2
	TOTAL	38	19	27	13	97	28	13	16	6	63	10	6	11	7	34

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Wilmington
EAST & WEST: 118th

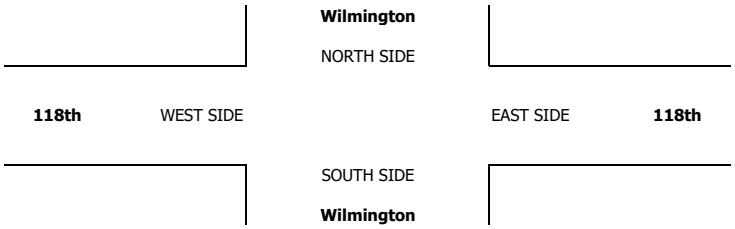
PROJECT #: SC3970
LOCATION #: 9
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Wilmington			SOUTHBOUND Wilmington			EASTBOUND 118th			WESTBOUND 118th				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	189	19	17	163	12	5	4	4	8	1	14	441	1	0	0	0	1
	7:15 AM	5	199	13	19	169	11	5	5	3	15	4	12	460	1	1	0	0	2
	7:30 AM	6	239	10	20	223	16	8	6	5	16	6	11	566	0	1	0	0	1
	7:45 AM	14	224	13	13	263	36	11	10	11	11	9	12	627	1	1	0	0	2
	8:00 AM	13	210	26	16	252	51	12	12	8	6	11	19	636	1	0	0	0	1
	8:15 AM	13	180	18	18	245	35	6	12	15	12	8	16	578	2	0	0	0	2
	8:30 AM	11	154	20	25	216	28	12	6	5	16	8	23	524	0	0	0	0	0
	8:45 AM	9	150	18	30	187	22	6	5	7	9	7	17	467	1	1	0	0	2
	VOLUMES	76	1,545	137	158	1,718	211	65	60	58	93	54	124	4,299	7	4	0	0	11
	APPROACH %	4%	88%	8%	8%	82%	10%	36%	33%	32%	34%	20%	46%						
	APP/DEPART	1,758	/	1,738	2,087	/	1,876	183	/	351	271	/	334	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	46	853	67	67	983	138	37	40	39	45	34	58	2,407					
	APPROACH %	5%	88%	7%	6%	83%	12%	32%	34%	34%	33%	25%	42%						
	PEAK HR FACTOR		0.947			0.931			0.879			0.951		0.946					
	APP/DEPART	966	/	950	1,188	/	1,071	116	/	172	137	/	214	0					
PM	4:00 PM	7	244	19	31	126	14	19	10	8	15	12	38	543	0	1	0	0	1
	4:15 PM	9	237	19	37	116	5	22	14	5	12	15	50	541	1	0	0	0	1
	4:30 PM	4	245	25	18	134	6	24	10	14	14	16	45	555	1	0	0	0	1
	4:45 PM	2	236	13	34	154	7	22	11	8	17	8	30	542	0	0	0	0	0
	5:00 PM	4	288	10	33	118	9	33	17	11	11	8	29	571	0	0	0	0	0
	5:15 PM	4	214	27	26	120	9	31	8	7	16	16	45	523	0	0	0	0	0
	5:30 PM	6	250	25	26	123	3	22	8	9	18	6	25	521	0	0	0	0	0
	5:45 PM	3	196	26	33	124	1	18	12	3	13	9	44	482	1	0	0	0	1
	VOLUMES	39	1,910	164	238	1,015	54	191	90	65	116	90	306	4,278	3	1	0	0	4
	APPROACH %	2%	90%	8%	18%	78%	4%	55%	26%	19%	23%	18%	60%						
	APP/DEPART	2,113	/	2,408	1,307	/	1,199	346	/	491	512	/	180	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	19	1,006	67	122	522	27	101	52	38	54	47	154	2,209					
	APPROACH %	2%	92%	6%	18%	78%	4%	53%	27%	20%	21%	18%	60%						
	PEAK HR FACTOR		0.904			0.860			0.783			0.828		0.967					
	APP/DEPART	1,092	/	1,261	671	/	616	191	/	241	255	/	91	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	3	4	4	1	12	2	4	4	1	11	1	0	0	0	1
	7:15 AM	4	3	4	2	13	4	3	4	2	13	0	0	0	0	0
	7:30 AM	8	9	7	3	27	8	9	6	3	26	0	0	1	0	1
	7:45 AM	5	13	6	3	27	5	12	6	2	25	0	1	0	1	2
	8:00 AM	11	16	8	3	38	11	16	8	3	38	0	0	0	0	0
	8:15 AM	8	6	5	3	22	8	5	4	1	18	0	1	1	2	4
	8:30 AM	6	6	7	2	21	6	5	7	2	20	0	1	0	0	1
	8:45 AM	3	3	2	1	9	3	3	2	1	9	0	0	0	0	0
	TOTAL	48	60	43	18	169	47	57	41	15	160	1	3	2	3	9
PM	4:00 PM	13	6	5	3	27	13	4	4	2	23	0	2	1	1	4
	4:15 PM	6	9	5	7	27	6	7	5	5	23	0	2	0	2	4
	4:30 PM	8	7	5	3	23	8	7	4	3	22	0	0	1	0	1
	4:45 PM	9	8	14	1	32	8	7	11	1	27	1	1	3	0	5
	5:00 PM	12	7	7	3	29	11	7	5	3	26	1	0	2	0	3
	5:15 PM	6	9	4	0	19	6	9	4	0	19	0	0	0	0	0
	5:30 PM	4	5	2	2	13	4	5	2	2	13	0	0	0	0	0
	5:45 PM	11	6	6	4	27	11	6	5	4	26	0	0	1	0	1
	TOTAL	69	57	48	23	197	67	52	40	20	179	2	5	8	3	18

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Wilmington
EAST & WEST: I-105 EB Ramps

PROJECT #: SC3970
LOCATION #: 10
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Wilmington			SOUTHBOUND Wilmington			EASTBOUND I-105 EB Ramps			WESTBOUND I-105 EB Ramps				U-TURNS				
	LANES:	NL 1	NT 3	NR X	SL X	ST 2	SR 2	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	82	126	0	0	71	165	95	0	122	0	0	0	661	0	0	0	0	0
	7:15 AM	82	134	0	0	80	205	118	0	121	0	0	0	740	0	0	0	0	0
	7:30 AM	96	163	0	0	111	202	148	0	148	0	0	0	868	0	0	0	0	0
	7:45 AM	94	153	0	0	161	143	146	0	152	0	0	0	849	0	0	0	0	0
	8:00 AM	82	159	0	0	132	125	132	0	187	0	0	0	817	0	0	0	0	0
	8:15 AM	60	142	0	0	136	140	126	0	162	0	0	0	766	0	0	0	0	0
	8:30 AM	72	116	0	0	118	127	122	0	153	0	0	0	708	0	0	0	0	0
	8:45 AM	59	114	0	0	104	89	123	0	136	0	0	0	625	0	0	1	0	1
	VOLUMES	627	1,107	0	0	913	1,196	1,010	0	1,181	0	0	0	6,035	0	0	1	0	1
	APPROACH %	36%	64%	0%	0%	43%	57%	46%	0%	54%	0%	0%	0%						
	APP/DEPART	1,734	/	2,117	2,109	/	2,094	2,192	/	0	0	/	1,824	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	332	617	0	0	540	610	552	0	649	0	0	0	3,300					
	APPROACH %	35%	65%	0%	0%	47%	53%	46%	0%	54%	0%	0%	0%						
	PEAK HR FACTOR		0.916			0.919			0.941			0.000		0.950					
	APP/DEPART	949	/	1,169	1,150	/	1,189	1,201	/	0	0	/	942	0					
PM	4:00 PM	87	214	0	0	129	238	81	0	42	0	0	0	791	0	0	0	0	0
	4:15 PM	87	220	0	0	114	216	77	0	46	0	0	0	760	0	0	1	0	1
	4:30 PM	92	222	0	0	109	203	82	0	51	0	0	0	759	0	0	0	0	0
	4:45 PM	90	197	0	0	144	198	81	0	52	0	0	0	762	0	0	2	0	2
	5:00 PM	95	254	0	0	118	222	80	0	42	0	0	0	811	0	1	0	0	1
	5:15 PM	80	209	0	0	113	208	78	0	44	0	0	0	732	0	0	1	0	1
	5:30 PM	83	212	0	0	109	181	102	0	44	0	0	0	731	0	0	0	0	0
	5:45 PM	70	188	0	0	111	177	72	0	47	0	0	0	665	0	0	1	0	1
	VOLUMES	684	1,716	0	0	947	1,643	653	0	368	0	0	0	6,017	0	1	5	0	6
	APPROACH %	29%	72%	0%	0%	37%	63%	64%	0%	36%	0%	0%	0%						
	APP/DEPART	2,400	/	2,370	2,591	/	1,315	1,026	/	0	0	/	2,332	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	364	893	0	0	485	839	320	0	191	0	0	0	3,096					
	APPROACH %	29%	71%	0%	0%	37%	63%	62%	0%	37%	0%	0%	0%						
	PEAK HR FACTOR		0.900			0.969			0.952			0.000		0.953					
	APP/DEPART	1,257	/	1,214	1,325	/	676	514	/	0	0	/	1,206	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	7:15 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	7:30 AM	0	1	1	1	3	0	1	0	1	2	0	0	1	0	1
	7:45 AM	0	1	1	3	5	0	0	0	2	2	0	1	1	1	3
	8:00 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	8:15 AM	0	0	1	2	3	0	0	0	0	0	0	0	1	2	3
	8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	0	5	4	9	18	0	4	0	6	10	0	1	4	3	8
PM	4:00 PM	0	2	1	3	6	0	2	0	2	4	0	0	1	1	2
	4:15 PM	0	0	1	2	3	0	0	0	0	0	0	0	1	2	3
	4:30 PM	0	1	1	0	2	0	1	0	0	1	0	0	1	0	1
	4:45 PM	0	2	2	1	5	0	2	0	1	3	0	0	2	0	2
	5:00 PM	0	2	3	1	6	0	1	0	0	1	0	1	3	1	5
	5:15 PM	0	2	1	0	3	0	2	0	0	2	0	0	1	0	1
	5:30 PM	0	1	2	0	3	0	1	0	0	1	0	0	2	0	2
	5:45 PM	0	2	3	0	5	0	0	0	0	0	0	2	3	0	5
	TOTAL	0	12	14	7	33	0	9	0	3	12	0	3	14	4	21

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Wilmington
EAST & WEST: 120th

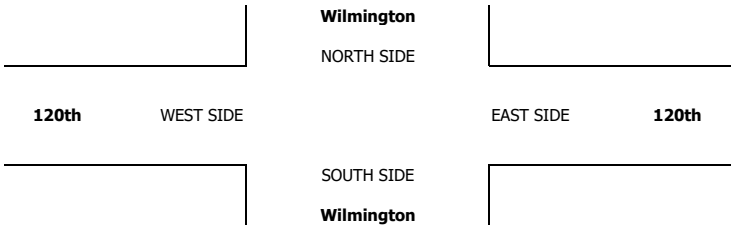
PROJECT #: SC3970
LOCATION #: 11
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Wilmington			SOUTHBOUND Wilmington			EASTBOUND 120th			WESTBOUND 119th				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	11	139	3	18	119	32	29	6	14	17	50	41	479	0	0	0	0	0
	7:15 AM	19	151	9	17	124	36	29	20	13	21	48	50	537	1	2	0	0	3
	7:30 AM	18	151	2	31	149	49	68	26	29	28	40	34	625	0	1	0	0	1
	7:45 AM	27	156	12	25	192	72	39	37	37	42	63	43	745	0	0	0	0	0
	8:00 AM	30	156	14	25	166	81	43	48	32	28	78	52	753	1	1	0	0	2
	8:15 AM	33	142	13	22	170	85	45	38	30	24	61	32	695	1	0	0	0	1
	8:30 AM	19	113	6	21	155	59	37	38	25	21	51	26	571	0	1	0	0	1
	8:45 AM	19	96	10	23	149	46	35	25	24	16	49	38	530	0	3	0	0	3
	VOLUMES	176	1,104	69	182	1,224	460	325	238	204	197	440	316	4,935	3	8	0	0	11
	APPROACH %	13%	82%	5%	10%	66%	25%	42%	31%	27%	21%	46%	33%						
	APP/DEPART	1,349	/	1,753	1,866	/	1,628	767	/	481	953	/	1,073	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	108	605	41	103	677	287	195	149	128	122	242	161	2,818					
	APPROACH %	14%	80%	5%	10%	63%	27%	41%	32%	27%	23%	46%	31%						
	PEAK HR FACTOR		0.943			0.923			0.959			0.831		0.936					
	APP/DEPART	754	/	963	1,067	/	929	472	/	291	525	/	635	0					
PM	4:00 PM	20	171	17	25	108	22	79	83	40	21	36	30	652	1	3	0	1	5
	4:15 PM	16	173	14	16	107	19	71	82	21	20	45	29	613	0	1	0	0	1
	4:30 PM	28	184	30	24	123	12	77	91	32	15	24	29	669	1	2	0	0	3
	4:45 PM	15	172	26	19	136	16	60	64	33	16	28	23	608	2	0	0	0	2
	5:00 PM	21	196	32	17	111	20	61	80	34	21	36	24	653	1	1	0	0	2
	5:15 PM	21	166	11	17	117	15	44	75	21	20	41	25	573	2	0	0	0	2
	5:30 PM	25	173	16	23	110	14	58	78	22	19	35	42	615	2	1	0	0	3
	5:45 PM	13	149	13	24	107	13	45	83	26	22	27	33	555	0	1	0	0	1
	VOLUMES	159	1,384	159	165	919	131	495	636	229	154	272	235	4,938	9	9	0	1	19
	APPROACH %	9%	81%	9%	14%	76%	11%	36%	47%	17%	23%	41%	36%						
	APP/DEPART	1,702	/	2,123	1,215	/	1,310	1,360	/	952	661	/	553	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	80	725	102	76	477	67	269	317	120	72	133	105	2,543					
	APPROACH %	9%	80%	11%	12%	77%	11%	38%	45%	17%	23%	43%	34%						
	PEAK HR FACTOR		0.911			0.906			0.883			0.824		0.950					
	APP/DEPART	907	/	1,103	620	/	673	706	/	491	310	/	276	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	7	2	6	4	19	7	2	6	4	19	0	0	0	0	0
	7:15 AM	2	1	5	5	13	2	1	5	4	12	0	0	0	1	1
	7:30 AM	4	1	9	5	19	4	1	8	5	18	0	0	1	0	1
	7:45 AM	2	5	9	7	23	2	4	9	5	20	0	1	0	2	3
	8:00 AM	2	3	6	1	12	2	3	6	1	12	0	0	0	0	0
	8:15 AM	4	4	4	6	18	4	2	3	3	12	0	2	1	3	6
	8:30 AM	9	7	8	4	28	9	5	7	4	25	0	2	1	0	3
	8:45 AM	7	5	9	10	31	7	5	8	9	29	0	0	1	1	2
	TOTAL	37	28	56	42	163	37	23	52	35	147	0	5	4	7	16
PM	4:00 PM	7	10	15	7	39	7	10	15	6	38	0	0	0	1	1
	4:15 PM	13	8	9	7	37	13	6	9	6	34	0	2	0	1	3
	4:30 PM	6	5	7	7	25	6	3	4	7	20	0	2	3	0	5
	4:45 PM	13	5	15	4	37	13	4	12	4	33	0	1	3	0	4
	5:00 PM	7	2	12	12	33	7	2	11	12	32	0	0	1	0	1
	5:15 PM	7	6	8	2	23	7	4	7	2	20	0	2	1	0	3
	5:30 PM	15	1	6	7	29	12	1	5	7	25	3	0	1	0	4
	5:45 PM	7	4	10	6	27	6	3	8	6	23	1	1	2	0	4
	TOTAL	75	41	82	52	250	71	33	71	50	225	4	8	11	2	25

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 25, 23

LOCATION: Willowbrook
NORTH & SOUTH: Croesus
EAST & WEST: Imperial

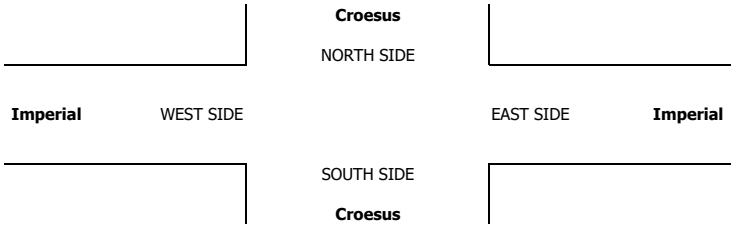
PROJECT #: SC3970
LOCATION #: 12
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND Croesus			SOUTHBOUND I-105 WB Ramps			EASTBOUND Imperial			WESTBOUND Imperial				U-TURNS				
	LANES:	NL 1.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 3.5	ER 1.5	WL 2	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	134	1	24	3	31	5	4	154	116	187	210	5	874	0	0	0	0	0
	7:15 AM	120	1	34	4	26	11	4	170	98	199	269	3	939	0	0	0	1	1
	7:30 AM	187	0	25	3	22	10	5	212	123	177	281	3	1,048	0	0	0	0	0
	7:45 AM	157	1	55	5	24	14	4	235	91	209	281	2	1,078	0	0	0	0	0
	8:00 AM	131	3	51	6	11	19	15	255	74	177	239	4	985	0	0	0	0	0
	8:15 AM	126	2	56	3	7	17	12	209	59	172	203	3	869	0	0	0	1	1
	8:30 AM	120	4	58	3	10	7	11	223	63	156	191	2	848	0	0	0	0	0
	8:45 AM	150	0	65	1	1	7	6	206	49	143	207	5	840	0	0	1	0	1
	VOLUMES	1,125	12	368	28	132	90	61	1,664	673	1,420	1,881	27	7,481	0	0	1	2	3
	APPROACH %	75%	1%	24%	11%	53%	36%	3%	69%	28%	43%	57%	1%						
	APP/DEPART	1,505	/	99	250	/	2,223	2,398	/	2,062	3,328	/	3,097	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	595	5	165	18	83	54	28	872	386	762	1,070	12	4,050					
	APPROACH %	78%	1%	22%	12%	54%	35%	2%	68%	30%	41%	58%	1%						
	PEAK HR FACTOR		0.898			0.901			0.935			0.937		0.939					
	APP/DEPART	765	/	45	155	/	1,230	1,286	/	1,056	1,844	/	1,719	0					
PM	4:00 PM	213	2	76	3	3	6	12	350	114	159	158	1	1,097	0	0	0	0	0
	4:15 PM	195	5	97	3	10	11	13	363	100	124	183	1	1,105	0	0	0	0	0
	4:30 PM	190	1	103	2	7	6	6	360	116	183	154	3	1,131	0	0	0	0	0
	4:45 PM	167	2	101	1	4	6	14	386	107	162	160	5	1,115	0	0	0	0	0
	5:00 PM	182	3	95	3	3	11	11	353	108	149	157	1	1,076	0	0	0	0	0
	5:15 PM	173	2	95	2	8	8	8	383	92	155	176	2	1,104	0	0	0	0	0
	5:30 PM	146	3	92	2	11	12	6	424	107	137	189	1	1,130	0	0	0	0	0
	5:45 PM	220	5	100	6	6	9	10	357	68	132	134	2	1,049	0	0	0	0	0
	VOLUMES	1,486	23	759	22	52	69	80	2,976	812	1,201	1,311	16	8,807	0	0	0	0	0
	APPROACH %	66%	1%	33%	15%	36%	48%	2%	77%	21%	48%	52%	1%						
	APP/DEPART	2,268	/	119	143	/	2,065	3,868	/	3,757	2,528	/	2,866	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	765	10	377	9	24	29	45	1,459	437	628	655	10	4,448					
	APPROACH %	66%	1%	33%	15%	39%	47%	2%	75%	23%	49%	51%	1%						
	PEAK HR FACTOR		0.970			0.646			0.957			0.951		0.983					
	APP/DEPART	1,152	/	65	62	/	1,089	1,941	/	1,845	1,293	/	1,449	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	3	1	0	6	2	3	1	0	6	0	0	0	0	0
	7:15 AM	1	1	0	0	2	0	1	0	0	1	1	0	0	0	1
	7:30 AM	4	0	0	0	4	4	0	0	0	4	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	5	1	0	0	6	1	0	0	0	1	4	1	0	0	5
	8:15 AM	5	2	0	0	7	4	1	0	0	5	1	1	0	0	2
	8:30 AM	2	1	0	0	3	2	1	0	0	3	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	19	9	1	0	29	13	7	1	0	21	6	2	0	0	8
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1
	4:30 PM	4	3	0	0	7	2	3	0	0	5	2	0	0	0	2
	4:45 PM	1	2	0	0	3	0	1	0	0	1	1	1	0	0	2
	5:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	5:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:30 PM	6	1	0	0	7	5	1	0	0	6	1	0	0	0	1
	5:45 PM	9	1	0	0	10	7	1	0	0	8	2	0	0	0	2
	TOTAL	26	8	0	0	34	19	7	0	0	26	7	1	0	0	8

Tuesday, April 25, 2023 CITY: Willowbrook PROJECT: SC

ADT1 118th east of Compton. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;;

AM Period	EB		WB			PM Period	EB		WB		
0:00	1		5			12:00	8		22		
0:15	1		1			12:15	10		10		
0:30	3		2			12:30	24		31		
0:45	0	5	4	12	17	12:45	17	59	19	82	141
1:00	1		2			13:00	14		14		
1:15	1		1			13:15	15		15		
1:30	0		2			13:30	17		9		
1:45	1	3	4	9	12	13:45	19	65	17	55	120
2:00	0		0			14:00	17		19		
2:15	1		1			14:15	24		15		
2:30	1		0			14:30	22		21		
2:45	0	2	1	2	4	14:45	17	80	14	69	149
3:00	0		0			15:00	27		21		
3:15	2		2			15:15	32		19		
3:30	0		0			15:30	34		29		
3:45	1	3	2	4	7	15:45	26	119	31	100	219
4:00	3		1			16:00	20		27		
4:15	3		1			16:15	19		28		
4:30	3		2			16:30	19		25		
4:45	3	12	3	7	19	16:45	22	80	16	96	176
5:00	2		1			17:00	18		30		
5:15	3		2			17:15	23		31		
5:30	4		3			17:30	19		13		
5:45	2	11	1	7	18	17:45	20	80	18	92	172
6:00	4		8			18:00	17		21		
6:15	5		7			18:15	15		13		
6:30	8		3			18:30	20		11		
6:45	4	21	9	27	48	18:45	15	67	14	59	126
7:00	15		5			19:00	10		13		
7:15	13		10			19:15	8		14		
7:30	30		10			19:30	6		13		
7:45	29	87	20	45	132	19:45	14	38	15	55	93
8:00	38		26			20:00	3		9		
8:15	50		19			20:15	10		8		
8:30	31		19			20:30	14		13		
8:45	26	145	11	75	220	20:45	7	34	15	45	79
9:00	17		19			21:00	3		19		
9:15	16		12			21:15	6		9		
9:30	22		12			21:30	4		7		
9:45	28	83	12	55	138	21:45	6	19	3	38	57
10:00	15		11			22:00	10		4		
10:15	24		20			22:15	3		13		
10:30	19		11			22:30	1		3		
10:45	7	65	8	50	115	22:45	0	14	7	27	41
11:00	17		14			23:00	4		1		
11:15	9		9			23:15	0		1		
11:30	13		15			23:30	2		1		
11:45	16	55	13	51	106	23:45	3	9	4	7	16
Total Vol.		492		344	**836**			664		725	**1389**

Daily Totals	EB	WB	**Combined**
	1156	1069	**2225**

	AM			**PM**		
Split %	58.9%	41.1%	**37.6%**	47.8%	52.2%	**62.4%**
Peak Hour	7:45	7:45	**7:45**	15:00	15:30	**15:00**
Volume	148	84	**232**	119	115	**219**
P.H.F.	0.74	0.81	**0.84**	0.88	0.93	**0.87**

cs@aimtd.com Tell. 714 253 7888

Tuesday, April 25, 2023 CITY: Willowbrook PROJECT: SC

ADT2 118th west of Holmes. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;;

AM Period	EB		WB			PM Period	EB		WB		
0:00	1		5			12:00	20		14		
0:15	1		0			12:15	21		18		
0:30	2		2			12:30	41		15		
0:45	0	4	3	10	14	12:45	24	106	17	64	170
1:00	1		2			13:00	19		14		
1:15	1		1			13:15	15		13		
1:30	0		2			13:30	19		15		
1:45	1	3	4	9	12	13:45	21	74	15	57	131
2:00	0		0			14:00	24		19		
2:15	1		1			14:15	29		16		
2:30	1		0			14:30	25		16		
2:45	0	2	1	2	4	14:45	27	105	16	67	172
3:00	0		0			15:00	28		13		
3:15	1		2			15:15	29		15		
3:30	0		0			15:30	38		21		
3:45	0	1	2	4	5	15:45	35	130	14	63	193
4:00	2		1			16:00	33		18		
4:15	2		0			16:15	24		21		
4:30	4		1			16:30	25		13		
4:45	3	11	2	4	15	16:45	25	107	16	68	175
5:00	2		1			17:00	59		14		
5:15	3		4			17:15	32		22		
5:30	3		4			17:30	28		10		
5:45	0	8	1	10	18	17:45	30	149	14	60	209
6:00	3		10			18:00	22		17		
6:15	3		10			18:15	23		8		
6:30	6		6			18:30	18		8		
6:45	3	15	11	37	52	18:45	13	76	11	44	120
7:00	10		12			19:00	14		6		
7:15	7		13			19:15	9		16		
7:30	14		21			19:30	6		7		
7:45	20	51	38	84	135	19:45	13	42	14	43	85
8:00	26		53			20:00	4		4		
8:15	23		42			20:15	13		10		
8:30	24		38			20:30	12		14		
8:45	15	88	34	167	255	20:45	10	39	14	42	81
9:00	10		26			21:00	4		15		
9:15	11		20			21:15	6		10		
9:30	17		24			21:30	3		5		
9:45	18	56	25	95	151	21:45	6	19	3	33	52
10:00	14		24			22:00	11		5		
10:15	22		22			22:15	5		12		
10:30	13		17			22:30	1		4		
10:45	7	56	16	79	135	22:45	0	17	6	27	44
11:00	11		15			23:00	2		1		
11:15	9		14			23:15	0		2		
11:30	17		14			23:30	2		1		
11:45	19	56	17	60	116	23:45	3	7	4	8	15
Total Vol.		351		561	**912**			871		576	**1447**

Daily Totals

EB	WB	Combined
1222	1137	**2359**

	AM			PM		
Split %	38.5%	61.5%	**38.7%**	60.2%	39.8%	**61.3%**
Peak Hour	11:45	7:45	**7:45**	17:00	15:30	**17:00**
Volume	101	171	**264**	149	74	**209**
P.H.F.	0.62	0.81	**0.84**	0.63	0.88	**0.72**

cs@aimtd.com Tell. 714 253 7888

Tuesday, April 25, 2023 CITY: Willowbrook PROJECT: SC

ADT3 Holmes north of 118th. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;;

AM Period	NB		SB			PM Period	NB		SB		
0:00	0		1			12:00	3		4		
0:15	0		1			12:15	5		8		
0:30	4		2			12:30	6		3		
0:45	0	4	1	5	9	12:45	8	22	7	22	44
1:00	3		1			13:00	1		6		
1:15	1		0			13:15	3		3		
1:30	1		2			13:30	5		3		
1:45	0	5	1	4	9	13:45	8	17	7	19	36
2:00	0		2			14:00	5		5		
2:15	0		0			14:15	6		6		
2:30	1		0			14:30	6		7		
2:45	1	2	1	3	5	14:45	8	25	5	23	48
3:00	1		0			15:00	7		3		
3:15	0		1			15:15	8		5		
3:30	0		0			15:30	9		4		
3:45	0	1	1	2	3	15:45	4	28	1	13	41
4:00	0		0			16:00	3		9		
4:15	1		3			16:15	3		4		
4:30	0		3			16:30	6		2		
4:45	1	2	1	7	9	16:45	8	20	7	22	42
5:00	1		2			17:00	8		4		
5:15	0		1			17:15	6		9		
5:30	2		2			17:30	5		7		
5:45	1	4	1	6	10	17:45	4	23	6	26	49
6:00	1		3			18:00	1		7		
6:15	3		7			18:15	5		2		
6:30	3		2			18:30	5		3		
6:45	3	10	1	13	23	18:45	5	16	9	21	37
7:00	0		5			19:00	7		7		
7:15	1		3			19:15	5		3		
7:30	4		6			19:30	8		2		
7:45	5	10	13	27	37	19:45	4	24	2	14	38
8:00	5		9			20:00	5		4		
8:15	3		11			20:15	6		1		
8:30	3		2			20:30	4		3		
8:45	3	14	4	26	40	20:45	6	21	3	11	32
9:00	4		7			21:00	2		3		
9:15	3		5			21:15	5		2		
9:30	3		1			21:30	1		3		
9:45	6	16	2	15	31	21:45	4	12	2	10	22
10:00	4		7			22:00	4		1		
10:15	3		4			22:15	1		5		
10:30	4		5			22:30	3		0		
10:45	3	14	1	17	31	22:45	3	11	2	8	19
11:00	9		6			23:00	3		2		
11:15	4		4			23:15	2		1		
11:30	2		6			23:30	3		5		
11:45	5	20	2	18	38	23:45	2	10	0	8	18
Total Vol.	102		143		**245**		229		197		**426**

Daily Totals

NB	SB	Combined
331	340	**671**

	AM			PM		
Split %	41.6%	58.4%	**36.5%**	53.8%	46.2%	**63.5%**
Peak Hour	10:30	7:30	**7:30**	14:45	17:15	**16:45**
Volume	20	39	**56**	32	29	**54**
P.H.F.	0.56	0.75	**0.78**	0.97	0.81	**0.90**

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Tuesday, April 25, 2023 CITY: Willowbrook PROJECT: SC

ADT4 117th east of Compton. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;;

AM Period	EB		WB			PM Period	EB		WB		
0:00	3		2			12:00	3		6		
0:15	0		2			12:15	4		3		
0:30	3		0			12:30	5		3		
0:45	0	6	1	5	11	12:45	6	18	11	23	41
1:00	0		0			13:00	8		9		
1:15	1		1			13:15	9		3		
1:30	2		3			13:30	10		2		
1:45	5	8	2	6	14	13:45	7	34	13	27	61
2:00	2		1			14:00	3		7		
2:15	1		0			14:15	6		10		
2:30	0		0			14:30	6		3		
2:45	0	3	0	1	4	14:45	5	20	11	31	51
3:00	0		0			15:00	4		6		
3:15	2		0			15:15	8		10		
3:30	0		0			15:30	10		14		
3:45	2	4	0	0	4	15:45	10	32	5	35	67
4:00	0		0			16:00	7		3		
4:15	0		1			16:15	8		7		
4:30	2		1			16:30	5		7		
4:45	0	2	1	3	5	16:45	12	32	7	24	56
5:00	0		1			17:00	5		9		
5:15	0		2			17:15	10		6		
5:30	1		6			17:30	12		5		
5:45	2	3	1	10	13	17:45	5	32	9	29	61
6:00	2		5			18:00	9		2		
6:15	1		1			18:15	4		4		
6:30	1		0			18:30	9		9		
6:45	3	7	5	11	18	18:45	6	28	6	21	49
7:00	3		5			19:00	8		7		
7:15	6		10			19:15	3		1		
7:30	5		10			19:30	3		3		
7:45	6	20	9	34	54	19:45	6	20	5	16	36
8:00	12		9			20:00	5		3		
8:15	7		7			20:15	6		4		
8:30	6		2			20:30	3		4		
8:45	3	28	1	19	47	20:45	4	18	6	17	35
9:00	6		4			21:00	5		5		
9:15	3		5			21:15	6		4		
9:30	3		8			21:30	5		1		
9:45	4	16	4	21	37	21:45	2	18	0	10	28
10:00	7		2			22:00	2		2		
10:15	6		8			22:15	6		3		
10:30	6		6			22:30	2		4		
10:45	3	22	4	20	42	22:45	0	10	2	11	21
11:00	4		6			23:00	6		0		
11:15	3		2			23:15	1		4		
11:30	5		8			23:30	1		2		
11:45	3	15	6	22	37	23:45	3	11	1	7	18
Total Vol.		134		152	**286**			273		251	**524**

Daily Totals		
EB	WB	**Combined**
407	403	**810**

	AM			**PM**		
Split %	46.9%	53.1%	**35.3%**	52.1%	47.9%	**64.7%**
Peak Hour	7:45	7:15	**7:15**	16:45	14:45	**14:45**
Volume	31	38	**67**	39	41	**68**
P.H.F.	0.65	0.95	**0.80**	0.81	0.73	**0.71**

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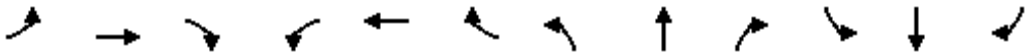
APPENDIX D

Level of Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	506	186	177	1036	141	118	313	149	189	328	102
Future Volume (veh/h)	87	506	186	177	1036	141	118	313	149	189	328	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	527	194	184	1079	147	123	326	155	197	342	106
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1599	675	339	1599	595	273	804	652	362	521	161
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	455	3554	1500	730	3554	1323	940	1870	1517	911	1211	375
Grp Volume(v), veh/h	91	527	194	184	1079	147	123	326	155	197	0	448
Grp Sat Flow(s),veh/h/ln	455	1777	1500	730	1777	1323	940	1870	1517	911	0	1587
Q Serve(g_s), s	17.8	8.6	7.4	19.6	21.6	6.2	10.8	10.8	5.8	17.1	0.0	20.2
Cycle Q Clear(g_c), s	39.4	8.6	7.4	28.2	21.6	6.2	30.9	10.8	5.8	28.0	0.0	20.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	176	1599	675	339	1599	595	273	804	652	362	0	682
V/C Ratio(X)	0.52	0.33	0.29	0.54	0.67	0.25	0.45	0.41	0.24	0.54	0.00	0.66
Avail Cap(c_a), veh/h	176	1599	675	339	1599	595	273	804	652	362	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	16.0	15.6	25.1	19.5	15.3	32.7	17.7	16.3	27.4	0.0	20.4
Incr Delay (d2), s/veh	10.5	0.6	1.1	6.1	2.3	1.0	5.3	1.5	0.9	5.8	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	6.0	4.5	6.7	13.4	3.4	5.0	8.3	3.7	7.4	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	16.5	16.7	31.2	21.8	16.3	37.9	19.2	17.1	33.1	0.0	25.3
LnGrp LOS	D	B	B	C	C	B	D	B	B	C	A	C
Approach Vol, veh/h		812			1410			604			645	
Approach Delay, s/veh		19.8			22.5			22.5			27.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.0		46.0		44.0		46.0				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 39		* 41		* 39		* 41				
Max Q Clear Time (g_c+I1), s		32.9		41.4		30.0		30.2				
Green Ext Time (p_c), s		1.6		0.0		2.6		6.2				

Intersection Summary												
HCM 6th Ctrl Delay			22.8									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	17	0	3	11	3	21	6	542	13	18	664	8
Future Vol, veh/h	17	0	3	11	3	21	6	542	13	18	664	8
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	0	3	12	3	23	7	602	14	20	738	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1107	1424	383	1038	1421	312	754	0	0	620	0	0
Stage 1	790	790	-	627	627	-	-	-	-	-	-	-
Stage 2	317	634	-	411	794	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*290	185	615	334	186	*868	852	-	-	1267	-	-
Stage 1	*350	400	-	779	691	-	-	-	-	-	-	-
Stage 2	*818	686	-	589	398	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*268	176	610	320	177	*864	846	-	-	1262	-	-
Mov Cap-2 Maneuver	*268	176	-	320	177	-	-	-	-	-	-	-
Stage 1	*343	386	-	766	680	-	-	-	-	-	-	-
Stage 2	*782	674	-	569	384	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	13.5	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	846	-	-	293	463	1262	-	-
HCM Lane V/C Ratio	0.008	-	-	0.076	0.084	0.016	-	-
HCM Control Delay (s)	9.3	0.1	-	18.3	13.5	7.9	0.1	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	4	0	0	8	6	549	2	5	666	4
Future Vol, veh/h	6	0	4	0	0	8	6	549	2	5	666	4
Conflicting Peds, #/hr	0	0	1	1	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	4	0	0	9	7	610	2	6	740	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1083	1396	383	1014	1397	312	754	0	0	618	0	0
Stage 1	764	764	-	631	631	-	-	-	-	-	-	-
Stage 2	319	632	-	383	766	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*304	194	615	351	194	*868	852	-	-	1271	-	-
Stage 1	*362	411	-	774	688	-	-	-	-	-	-	-
Stage 2	*818	687	-	611	410	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*294	187	609	340	187	*863	844	-	-	1263	-	-
Mov Cap-2 Maneuver	*294	187	-	340	187	-	-	-	-	-	-	-
Stage 1	*354	404	-	759	675	-	-	-	-	-	-	-
Stage 2	*799	674	-	601	403	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15	9.2	0.2	0.1
HCM LOS	C	A		

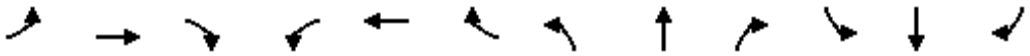
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	844	-	-	371	863	1263	-	-
HCM Lane V/C Ratio	0.008	-	-	0.03	0.01	0.004	-	-
HCM Control Delay (s)	9.3	0.1	-	15	9.2	7.9	0	-
HCM Lane LOS	A	A	-	C	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	30	56	29	22	33	8	521	61	57	569	5
Future Volume (veh/h)	27	30	56	29	22	33	8	521	61	57	569	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	34	63	33	25	37	9	585	69	64	639	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	69	97	112	76	79	58	2140	249	216	2064	19
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	209	482	679	331	534	552	12	2903	338	216	2799	26
Grp Volume(v), veh/h	127	0	0	95	0	0	377	0	286	368	0	341
Grp Sat Flow(s),veh/h/ln	1370	0	0	1417	0	0	1854	0	1399	1566	0	1476
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	5.9
Cycle Q Clear(g_c), s	6.4	0.0	0.0	4.4	0.0	0.0	5.0	0.0	5.1	4.8	0.0	5.9
Prop In Lane	0.24		0.50	0.35		0.39	0.02		0.24	0.17		0.02
Lane Grp Cap(c), veh/h	255	0	0	267	0	0	1416	0	1032	1211	0	1088
V/C Ratio(X)	0.50	0.00	0.00	0.36	0.00	0.00	0.27	0.00	0.28	0.30	0.00	0.31
Avail Cap(c_a), veh/h	601	0	0	605	0	0	1416	0	1032	1211	0	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	0.0	29.5	0.0	0.0	3.2	0.0	3.3	3.2	0.0	3.4
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.7	0.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	0.0	0.0	2.9	0.0	0.0	2.3	0.0	1.9	2.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	0.0	30.3	0.0	0.0	3.7	0.0	3.9	3.9	0.0	4.1
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		127			95			663			709	
Approach Delay, s/veh		31.8			30.3			3.8			4.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.8		15.2		59.8		15.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		7.1		8.4		7.9		6.4				
Green Ext Time (p_c), s		6.3		0.7		7.0		0.5				

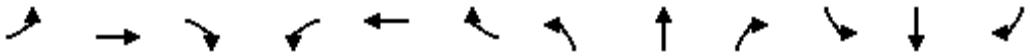
Intersection Summary												
HCM 6th Ctrl Delay			7.7									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	484	120	64	439	179	119	261	96	197	332	87
Future Volume (veh/h)	156	484	120	64	439	179	119	261	96	197	332	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.98		0.93	0.95		0.82	0.92		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	181	563	140	74	510	93	138	303	112	229	386	101
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	830	647	245	830	655	435	953	333	388	1155	297
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.85	0.85	0.85
Sat Flow, veh/h	800	1870	1459	732	1870	1478	865	2253	786	892	2730	701
Grp Volume(v), veh/h	181	563	140	74	510	93	138	235	180	229	249	238
Grp Sat Flow(s),veh/h/ln	800	1870	1459	732	1870	1478	865	1777	1263	892	1777	1654
Q Serve(g_s), s	16.8	18.0	4.4	6.7	15.6	2.8	8.7	6.6	7.2	13.7	2.2	2.3
Cycle Q Clear(g_c), s	32.4	18.0	4.4	24.7	15.6	2.8	11.0	6.6	7.2	20.8	2.2	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.42
Lane Grp Cap(c), veh/h	284	830	647	245	830	655	435	752	534	388	752	700
V/C Ratio(X)	0.64	0.68	0.22	0.30	0.61	0.14	0.32	0.31	0.34	0.59	0.33	0.34
Avail Cap(c_a), veh/h	284	830	647	245	830	655	438	758	539	391	758	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	16.6	12.8	26.4	16.0	12.4	16.5	14.4	14.6	7.5	3.5	3.5
Incr Delay (d2), s/veh	10.5	4.4	0.8	3.0	3.2	0.4	0.7	0.4	0.6	3.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	12.5	2.6	2.4	10.8	1.7	3.0	4.5	3.5	1.9	1.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	21.1	13.6	29.4	19.2	12.8	17.2	14.8	15.2	10.6	3.9	4.0
LnGrp LOS	D	C	B	C	B	B	B	B	B	B	A	A
Approach Vol, veh/h		884			677			553			716	
Approach Delay, s/veh		23.5			19.4			15.5			6.1	
Approach LOS		C			B			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.7		38.3		36.7		38.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		13.0		34.4		22.8		26.7				
Green Ext Time (p_c), s		5.1		0.0		4.2		3.0				

Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	443	53	95	433	5	67	0	70	4	1	11
Future Volume (veh/h)	30	443	53	95	433	5	67	0	70	4	1	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.97		0.87	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	509	61	109	498	6	77	0	80	5	1	13
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	614	1367	918	597	1197	14	305	0	250	92	37	170
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.16	0.00	0.16	0.16	0.16	0.16
Sat Flow, veh/h	871	1870	1255	820	1638	20	1373	0	1527	255	225	1040
Grp Volume(v), veh/h	34	509	61	109	0	504	77	0	80	19	0	0
Grp Sat Flow(s),veh/h/ln	871	1870	1255	820	0	1658	1373	0	1527	1519	0	0
Q Serve(g_s), s	1.4	9.1	1.2	5.1	0.0	10.6	3.4	0.0	4.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.0	9.1	1.2	14.2	0.0	10.6	4.3	0.0	4.2	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.26		0.68
Lane Grp Cap(c), veh/h	614	1367	918	597	0	1212	305	0	250	299	0	0
V/C Ratio(X)	0.06	0.37	0.07	0.18	0.00	0.42	0.25	0.00	0.32	0.06	0.00	0.00
Avail Cap(c_a), veh/h	614	1367	918	597	0	1212	556	0	534	573	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.72	0.00	0.72	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.0	4.5	3.4	7.1	0.0	4.7	33.2	0.0	33.2	31.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.1	0.5	0.0	0.8	0.4	0.0	0.7	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	4.9	0.5	1.5	0.0	5.2	2.7	0.0	2.9	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	5.0	3.5	7.6	0.0	5.4	33.6	0.0	34.0	31.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		604			613			157			19	
Approach Delay, s/veh		5.0			5.8			33.8			31.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		70.8		19.2		70.8				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.5		49.0		31.5		49.0				
Max Q Clear Time (g_c+I1), s		6.3		14.0		2.9		16.2				
Green Ext Time (p_c), s		0.7		2.3		0.1		7.3				

Intersection Summary												
HCM 6th Ctrl Delay			9.0									
HCM 6th LOS			A									

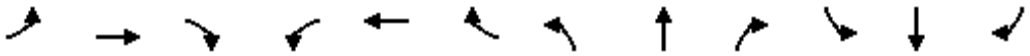
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	85	4	5	162	11	0	1	1	26	0	9
Future Vol, veh/h	4	85	4	5	162	11	0	1	1	26	0	9
Conflicting Peds, #/hr	13	0	31	31	0	13	7	0	0	0	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	101	5	6	193	13	0	1	1	31	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	137	0	0	369	376	135	340	372	220
Stage 1	-	-	-	-	-	-	145	145	-	225	225	-
Stage 2	-	-	-	-	-	-	224	231	-	115	147	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1350	-	-	1461	-	-	613	570	954	641	573	820
Stage 1	-	-	-	-	-	-	891	793	-	778	718	-
Stage 2	-	-	-	-	-	-	779	713	-	926	792	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1333	-	-	1418	-	-	579	542	925	627	544	804
Mov Cap-2 Maneuver	-	-	-	-	-	-	579	542	-	627	544	-
Stage 1	-	-	-	-	-	-	862	766	-	766	706	-
Stage 2	-	-	-	-	-	-	760	701	-	920	765	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	10.3	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	684	1333	-	-	1418	-	-	665
HCM Lane V/C Ratio	0.003	0.004	-	-	0.004	-	-	0.063
HCM Control Delay (s)	10.3	7.7	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	8	264	0	0	0	97	485	36	22	888	120
Future Volume (vph)	112	8	264	0	0	0	97	485	36	22	888	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.98				1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557				1770	3494		1770	3456	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1557				1770	3494		1770	3456	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	117	8	275	0	0	0	101	505	38	23	925	125
RTOR Reduction (vph)	0	0	243	0	0	0	0	3	0	0	5	0
Lane Group Flow (vph)	117	8	32	0	0	0	101	540	0	23	1045	0
Confl. Peds. (#/hr)			2						9			8
Confl. Bikes (#/hr)			1						1			8
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	13.6	14.0	14.0				12.2	76.2		10.5	74.1	
Effective Green, g (s)	13.6	14.0	14.0				12.2	76.2		10.5	74.1	
Actuated g/C Ratio	0.11	0.12	0.12				0.10	0.64		0.09	0.62	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	200	217	181				179	2218		154	2134	
v/s Ratio Prot	c0.07	0.00					c0.06	0.15		0.01	c0.30	
v/s Ratio Perm			0.02									
v/c Ratio	0.58	0.04	0.18				0.56	0.24		0.15	0.49	
Uniform Delay, d1	50.5	47.0	47.8				51.4	9.5		50.6	12.6	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.3	0.1	0.5				4.0	0.3		0.5	0.8	
Delay (s)	54.8	47.1	48.3				55.4	9.7		51.1	13.4	
Level of Service	D	D	D				E	A		D	B	
Approach Delay (s)		50.2			0.0			16.9			14.2	
Approach LOS		D			A			B			B	

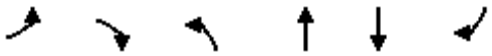
Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	117	8	275	101	543	23	1050
v/c Ratio	0.59	0.04	0.65	0.56	0.23	0.09	0.49
Control Delay	62.1	45.1	13.1	64.2	11.5	40.9	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	45.1	13.1	64.2	11.5	40.9	13.7
Queue Length 50th (ft)	70	5	0	61	37	13	171
Queue Length 95th (ft)	115	16	63	108	146	29	238
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	213	664	732	182	2341	262	2139
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.01	0.38	0.55	0.23	0.09	0.49

Intersection Summary



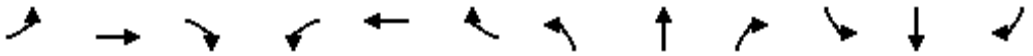
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	552	649	332	617	540	610
Future Volume (veh/h)	552	649	332	617	540	610
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	581	334	349	649	568	421
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	602	536	460	2722	735	556
Arrive On Green	0.34	0.34	0.52	1.00	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	5274	3647	2686
Grp Volume(v), veh/h	581	334	349	649	568	421
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1343
Q Serve(g_s), s	32.0	17.7	15.6	0.0	15.1	6.1
Cycle Q Clear(g_c), s	32.0	17.7	15.6	0.0	15.1	6.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	602	536	460	2722	735	556
V/C Ratio(X)	0.96	0.62	0.76	0.24	0.77	0.76
Avail Cap(c_a), veh/h	602	536	460	2742	913	690
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	32.5	27.8	21.7	0.0	37.4	6.5
Incr Delay (d2), s/veh	28.0	2.2	7.0	0.2	7.7	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	24.8	22.3	9.2	0.1	11.6	13.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.5	30.0	28.7	0.2	45.2	15.8
LnGrp LOS	E	C	C	A	D	B
Approach Vol, veh/h	915			998	989	
Approach Delay, s/veh	49.4			10.2	32.6	
Approach LOS	D			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		39.5	33.0	27.5
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 54		33.8	* 21	25.7
Max Q Clear Time (g_c+I1), s		2.0		34.0	17.6	17.1
Green Ext Time (p_c), s		5.0		0.0	0.4	3.6

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

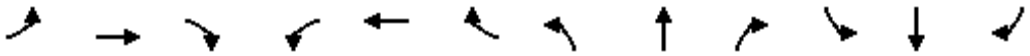
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	40	39	45	34	58	46	853	67	67	983	138
Future Volume (veh/h)	37	40	39	45	34	58	46	853	67	67	983	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.96		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	42	41	47	36	4	48	898	71	71	1035	145
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	139	116	251	178	371	105	2519	198	238	1727	242
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.06	0.53	0.53	0.09	0.74	0.74
Sat Flow, veh/h	362	565	469	787	719	1504	1781	4760	375	3456	3117	436
Grp Volume(v), veh/h	122	0	0	83	0	4	48	641	328	71	589	591
Grp Sat Flow(s),veh/h/ln	1396	0	0	1506	0	1504	1781	1702	1731	1728	1777	1776
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.2	2.6	10.9	11.0	1.9	15.6	15.7
Cycle Q Clear(g_c), s	6.8	0.0	0.0	4.0	0.0	0.2	2.6	10.9	11.0	1.9	15.6	15.7
Prop In Lane	0.32		0.34	0.57		1.00	1.00		0.22	1.00		0.25
Lane Grp Cap(c), veh/h	392	0	0	428	0	371	105	1801	916	238	985	984
V/C Ratio(X)	0.31	0.00	0.00	0.19	0.00	0.01	0.46	0.36	0.36	0.30	0.60	0.60
Avail Cap(c_a), veh/h	499	0	0	543	0	489	148	1801	916	276	985	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.83	0.83	0.83	0.63	0.63	0.63
Uniform Delay (d), s/veh	30.8	0.0	0.0	29.8	0.0	28.4	45.5	13.7	13.7	43.2	7.9	7.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	1.0	0.5	0.9	0.2	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	0.0	2.9	0.0	0.1	2.1	7.1	7.3	1.5	7.2	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	0.0	0.0	30.0	0.0	28.4	46.5	14.1	14.6	43.3	9.6	9.6
LnGrp LOS	C	A	A	C	A	C	D	B	B	D	A	A
Approach Vol, veh/h		122			87			1017			1251	
Approach Delay, s/veh		31.3			29.9			15.8			11.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	57.9		30.2	9.4	60.4		30.2				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	8.0	44.0		32.5	8.3	45.2		32.5				
Max Q Clear Time (g_c+I1), s	3.9	13.0		8.8	4.6	17.7		6.0				
Green Ext Time (p_c), s	0.0	10.3		0.7	0.0	12.7		0.4				

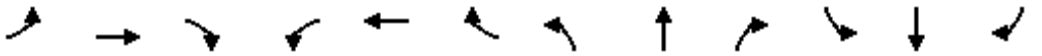
Intersection Summary			
HCM 6th Ctrl Delay		14.9	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	149	128	122	242	161	108	605	41	103	677	287
Future Volume (veh/h)	195	149	128	122	242	161	108	605	41	103	677	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.95	0.99		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	159	136	130	257	171	115	644	44	110	720	305
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	790	655	504	435	290	197	1599	596	326	1075	455
Arrive On Green	0.71	0.71	0.71	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	956	1870	1550	1078	1031	686	548	3554	1325	748	2388	1011
Grp Volume(v), veh/h	207	159	136	130	0	428	115	644	44	110	536	489
Grp Sat Flow(s),veh/h/ln	956	1870	1550	1078	0	1717	548	1777	1325	748	1777	1622
Q Serve(g_s), s	18.8	2.6	2.7	7.5	0.0	17.3	18.8	11.0	1.7	10.4	21.4	21.4
Cycle Q Clear(g_c), s	36.0	2.6	2.7	10.1	0.0	17.3	40.2	11.0	1.7	21.4	21.4	21.4
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	300	790	655	504	0	725	197	1599	596	326	800	730
V/C Ratio(X)	0.69	0.20	0.21	0.26	0.00	0.59	0.59	0.40	0.07	0.34	0.67	0.67
Avail Cap(c_a), veh/h	300	790	655	504	0	725	197	1599	596	326	800	730
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	21.3	8.1	8.1	18.9	0.0	20.0	35.3	16.6	14.1	23.8	19.5	19.5
Incr Delay (d2), s/veh	7.2	0.2	0.2	0.5	0.0	1.7	12.1	0.8	0.2	2.4	3.9	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.0	1.8	1.6	3.4	0.0	11.4	5.5	7.8	0.9	3.6	13.6	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	8.3	8.3	19.3	0.0	21.7	47.4	17.4	14.3	26.2	23.4	23.7
LnGrp LOS	C	A	A	B	A	C	D	B	B	C	C	C
Approach Vol, veh/h		502			558			803			1135	
Approach Delay, s/veh		16.6			21.2			21.5			23.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.5		43.5		46.5		43.5				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		40.5		38.0		40.5		38.0				
Max Q Clear Time (g_c+I1), s		42.2		38.0		23.4		19.3				
Green Ext Time (p_c), s		0.0		0.0		10.3		5.4				

Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	872	386	762	1070	12	595	5	165	18	83	54
Future Volume (veh/h)	28	872	386	762	1070	12	595	5	165	18	83	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	951	236	811	1138	13	637	0	23	19	88	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	1739	654	783	2036	23	655	0	291	22	104	67
Arrive On Green	0.07	0.23	0.23	0.23	0.39	0.39	0.18	0.00	0.18	0.13	0.13	0.13
Sat Flow, veh/h	1781	7481	1563	3456	5187	59	3563	0	1585	176	817	529
Grp Volume(v), veh/h	30	951	236	811	747	404	637	0	23	164	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1563	1728	1702	1843	1781	0	1585	1523	0	0
Q Serve(g_s), s	1.7	11.7	10.9	23.8	17.9	17.9	18.7	0.0	1.3	11.1	0.0	0.0
Cycle Q Clear(g_c), s	1.7	11.7	10.9	23.8	17.9	17.9	18.7	0.0	1.3	11.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.12		0.35
Lane Grp Cap(c), veh/h	119	1739	654	783	1336	723	655	0	291	193	0	0
V/C Ratio(X)	0.25	0.55	0.36	1.04	0.56	0.56	0.97	0.00	0.08	0.85	0.00	0.00
Avail Cap(c_a), veh/h	204	1739	654	783	1336	723	655	0	291	261	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.5	35.4	21.1	40.6	24.8	24.8	42.6	0.0	35.5	44.9	0.0	0.0
Incr Delay (d2), s/veh	1.1	1.2	1.5	41.6	1.7	3.1	28.4	0.0	0.1	17.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	9.1	9.5	20.9	11.6	12.7	15.9	0.0	0.9	8.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	36.7	22.6	82.2	26.5	27.9	70.9	0.0	35.6	62.4	0.0	0.0
LnGrp LOS	D	D	C	F	C	C	E	A	D	E	A	A
Approach Vol, veh/h		1217			1962			660			164	
Approach Delay, s/veh		34.2			49.8			69.7			62.4	
Approach LOS		C			D			E			E	

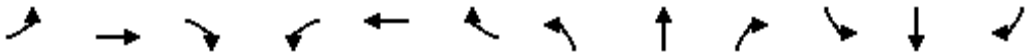
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.0	31.0	31.2		17.8	14.2	48.0				
Change Period (Y+Rc), s		5.7	7.2	* 6.8		4.5	7.2	* 6.8				
Max Green Setting (Gmax), s		19.3	23.8	* 20		18.0	12.0	* 32				
Max Q Clear Time (g_c+I1), s		20.7	25.8	13.7		13.1	3.7	19.9				
Green Ext Time (p_c), s		0.0	0.0	3.4		0.3	0.0	5.5				

Intersection Summary												
HCM 6th Ctrl Delay			48.9									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1326	110	96	757	271	115	316	337	182	280	112
Future Volume (veh/h)	104	1326	110	96	757	271	115	316	337	182	280	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	1353	112	98	772	277	117	322	344	186	286	114
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	1548	646	112	1548	567	330	831	673	332	499	199
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	536	3554	1483	362	3554	1303	981	1870	1514	767	1123	448
Grp Volume(v), veh/h	106	1353	112	98	772	277	117	322	344	186	0	400
Grp Sat Flow(s),veh/h/ln	536	1777	1483	362	1777	1303	981	1870	1514	767	0	1570
Q Serve(g_s), s	16.0	31.2	4.1	8.0	14.1	13.7	9.1	10.4	14.7	19.3	0.0	17.1
Cycle Q Clear(g_c), s	30.1	31.2	4.1	39.2	14.1	13.7	26.2	10.4	14.7	29.7	0.0	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	230	1548	646	112	1548	567	330	831	673	332	0	698
V/C Ratio(X)	0.46	0.87	0.17	0.87	0.50	0.49	0.35	0.39	0.51	0.56	0.00	0.57
Avail Cap(c_a), veh/h	230	1548	646	112	1548	567	330	831	673	332	0	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	23.2	15.5	43.7	18.3	18.2	28.4	16.8	18.0	26.7	0.0	18.6
Incr Delay (d2), s/veh	6.5	7.2	0.6	56.2	1.2	3.0	3.0	1.4	2.8	6.7	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	19.3	2.5	7.0	9.4	7.6	4.2	8.0	9.1	7.1	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	30.3	16.1	99.9	19.5	21.2	31.4	18.1	20.7	33.4	0.0	22.0
LnGrp LOS	D	C	B	F	B	C	C	B	C	C	A	C
Approach Vol, veh/h		1571			1147			783			586	
Approach Delay, s/veh		29.7			26.8			21.3			25.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.3		44.7		45.3		44.7				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 40		* 39		* 40		* 39				
Max Q Clear Time (g_c+I1), s		28.2		33.2		31.7		41.2				
Green Ext Time (p_c), s		3.0		4.5		2.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	4	1	2	5	0	24	2	790	12	19	422	14
Future Vol, veh/h	4	1	2	5	0	24	2	790	12	19	422	14
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	2	5	0	25	2	814	12	20	435	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	900	1323	234	1088	1324	417	456	0	0	830	0	0
Stage 1	489	489	-	828	828	-	-	-	-	-	-	-
Stage 2	411	834	-	260	496	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*627	267	768	411	266	*786	1101	-	-	1168	-	-
Stage 1	*529	548	-	736	646	-	-	-	-	-	-	-
Stage 2	*741	641	-	722	544	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*591	257	761	399	256	*783	1094	-	-	1163	-	-
Mov Cap-2 Maneuver	*591	257	-	399	256	-	-	-	-	-	-	-
Stage 1	*524	532	-	731	642	-	-	-	-	-	-	-
Stage 2	*715	637	-	701	528	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	10.6	0	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	527	672	1163	-	-
HCM Lane V/C Ratio	0.002	-	-	0.014	0.044	0.017	-	-
HCM Control Delay (s)	8.3	0	-	11.9	10.6	8.1	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

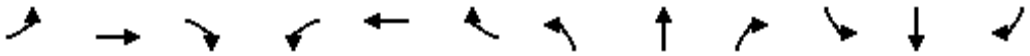
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	9	1	1	1	0	4	2	789	4	11	406	10
Future Vol, veh/h	9	1	1	1	0	4	2	789	4	11	406	10
Conflicting Peds, #/hr	0	0	4	4	0	0	9	0	5	5	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	1	1	0	4	2	813	4	11	419	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	866	1281	228	1060	1284	414	438	0	0	822	0	0
Stage 1	455	455	-	824	824	-	-	-	-	-	-	-
Stage 2	411	826	-	236	460	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*676	288	775	*438	*287	*786	1118	-	-	*1175	-	-
Stage 1	*554	567	-	*741	*649	-	-	-	-	-	-	-
Stage 2	*741	648	-	*746	*564	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*659	280	765	*428	*278	*782	1108	-	-	*1169	-	-
Mov Cap-2 Maneuver	*659	280	-	*428	*278	-	-	-	-	-	-	-
Stage 1	*547	555	-	*735	*644	-	-	-	-	-	-	-
Stage 2	*734	643	-	*732	*552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.4	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1108	-	-	593	671	* 1169	-	-
HCM Lane V/C Ratio	0.002	-	-	0.019	0.008	0.01	-	-
HCM Control Delay (s)	8.3	0	-	11.2	10.4	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

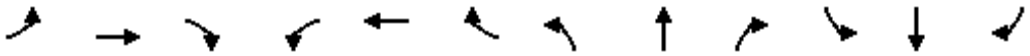
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	15	16	39	13	50	10	734	40	27	371	8
Future Volume (veh/h)	15	15	16	39	13	50	10	734	40	27	371	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.98		0.98	0.99		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	15	16	40	13	52	10	757	41	28	382	8
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	78	60	111	36	78	58	2371	127	165	2185	46
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	284	650	498	368	297	652	11	3121	167	146	2876	60
Grp Volume(v), veh/h	46	0	0	105	0	0	456	0	352	224	0	194
Grp Sat Flow(s),veh/h/ln	1433	0	0	1317	0	0	1860	0	1439	1615	0	1467
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	5.8	0.0	0.0	2.7
Cycle Q Clear(g_c), s	2.1	0.0	0.0	5.6	0.0	0.0	5.8	0.0	5.8	2.4	0.0	2.7
Prop In Lane	0.33		0.35	0.38		0.50	0.02		0.12	0.13		0.04
Lane Grp Cap(c), veh/h	236	0	0	225	0	0	1462	0	1094	1281	0	1115
V/C Ratio(X)	0.20	0.00	0.00	0.47	0.00	0.00	0.31	0.00	0.32	0.17	0.00	0.17
Avail Cap(c_a), veh/h	611	0	0	590	0	0	1462	0	1094	1281	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	0.0	31.4	0.0	0.0	2.9	0.0	2.9	2.5	0.0	2.5
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.5	0.0	0.0	0.6	0.0	0.8	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.0	0.0	3.4	0.0	0.0	2.5	0.0	2.0	1.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	0.0	32.9	0.0	0.0	3.4	0.0	3.6	2.8	0.0	2.8
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		46			105			808			418	
Approach Delay, s/veh		30.4			32.9			3.5			2.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.5		13.5		61.5		13.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		7.8		4.1		4.7		7.6				
Green Ext Time (p_c), s		7.8		0.2		3.9		0.6				

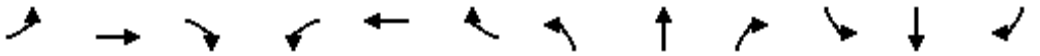
Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	419	176	27	258	107	82	327	62	71	267	98
Future Volume (veh/h)	320	419	176	27	258	107	82	327	62	71	267	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.97	0.99		0.95	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	337	441	185	28	272	113	86	344	65	75	281	103
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	575	1044	860	432	1044	861	314	848	158	296	784	279
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	991	1870	1540	796	1870	1542	990	2749	511	962	2541	906
Grp Volume(v), veh/h	337	441	185	28	272	113	86	220	189	75	194	190
Grp Sat Flow(s),veh/h/ln	991	1870	1540	796	1870	1542	990	1777	1483	962	1777	1670
Q Serve(g_s), s	20.0	10.2	4.5	1.6	5.6	2.6	5.6	7.3	7.6	5.0	6.4	6.7
Cycle Q Clear(g_c), s	25.6	10.2	4.5	11.8	5.6	2.6	12.2	7.3	7.6	12.6	6.4	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.54
Lane Grp Cap(c), veh/h	575	1044	860	432	1044	861	314	548	458	296	548	515
V/C Ratio(X)	0.59	0.42	0.22	0.06	0.26	0.13	0.27	0.40	0.41	0.25	0.35	0.37
Avail Cap(c_a), veh/h	575	1044	860	432	1044	861	430	758	633	409	758	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	9.6	8.3	13.0	8.6	7.9	25.0	20.5	20.5	25.5	20.1	20.2
Incr Delay (d2), s/veh	4.3	1.3	0.6	0.3	0.6	0.3	0.8	0.8	1.0	0.8	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	7.0	2.6	0.5	3.8	1.5	2.4	5.3	4.6	2.1	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	10.8	8.9	13.3	9.2	8.2	25.8	21.3	21.6	26.3	20.8	21.0
LnGrp LOS	B	B	A	B	A	A	C	C	C	C	C	C
Approach Vol, veh/h		963			413			495			459	
Approach Delay, s/veh		13.5			9.2			22.2			21.8	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.1		46.9		28.1		46.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		14.2		27.6		14.6		13.8				
Green Ext Time (p_c), s		4.2		3.3		3.9		3.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	515	22	41	245	1	52	0	105	5	0	2
Future Volume (veh/h)	1	515	22	41	245	1	52	0	105	5	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.99		0.92	0.96		0.94	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	599	26	48	285	1	60	0	122	6	0	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	773	1329	936	535	1178	4	340	0	272	219	10	53
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.18	0.00	0.18	0.18	0.00	0.18
Sat Flow, veh/h	1065	1870	1317	793	1657	6	1416	0	1483	810	53	288
Grp Volume(v), veh/h	1	599	26	48	0	286	60	0	122	8	0	0
Grp Sat Flow(s),veh/h/ln	1065	1870	1317	793	0	1663	1416	0	1483	1151	0	0
Q Serve(g_s), s	0.0	12.3	0.5	2.5	0.0	5.4	0.0	0.0	6.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.4	12.3	0.5	14.7	0.0	5.4	2.7	0.0	6.6	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	773	1329	936	535	0	1182	340	0	272	281	0	0
V/C Ratio(X)	0.00	0.45	0.03	0.09	0.00	0.24	0.18	0.00	0.45	0.03	0.00	0.00
Avail Cap(c_a), veh/h	773	1329	936	535	0	1182	558	0	511	488	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.95	0.00	0.95	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.5	5.5	3.8	8.7	0.0	4.5	31.1	0.0	32.7	30.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.1	0.3	0.0	0.5	0.2	0.0	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.2	0.2	0.8	0.0	2.8	2.0	0.0	4.4	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	6.6	3.9	9.0	0.0	5.0	31.3	0.0	33.8	30.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		626			334			182			8	
Approach Delay, s/veh		6.5			5.6			33.0			30.2	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.0		69.0		21.0		69.0				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.0		49.5		31.0		49.5				
Max Q Clear Time (g_c+I1), s		8.6		14.3		4.7		16.7				
Green Ext Time (p_c), s		0.7		2.6		0.0		3.5				

Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

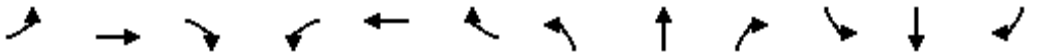
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	135	2	9	53	23	3	0	6	13	1	8
Future Vol, veh/h	4	135	2	9	53	23	3	0	6	13	1	8
Conflicting Peds, #/hr	10	0	16	16	0	10	3	0	4	4	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	173	3	12	68	29	4	0	8	17	1	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	192	0	0	316	332	195	310	319	96
Stage 1	-	-	-	-	-	-	201	201	-	117	117	-
Stage 2	-	-	-	-	-	-	115	131	-	193	202	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1484	-	-	1403	-	-	693	621	911	700	633	960
Stage 1	-	-	-	-	-	-	855	760	-	888	799	-
Stage 2	-	-	-	-	-	-	890	788	-	864	759	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1470	-	-	1381	-	-	665	598	894	679	610	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	665	598	-	679	610	-
Stage 1	-	-	-	-	-	-	838	746	-	876	784	-
Stage 2	-	-	-	-	-	-	869	773	-	850	745	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	9.6	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	802	1470	-	-	1381	-	-	753
HCM Lane V/C Ratio	0.014	0.003	-	-	0.008	-	-	0.037
HCM Control Delay (s)	9.6	7.5	0	-	7.6	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	5	582	0	0	0	124	481	39	32	773	79
Future Volume (vph)	129	5	582	0	0	0	124	481	39	32	773	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.97				1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1541				1770	3492		1770	3477	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1541				1770	3492		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	5	633	0	0	0	135	523	42	35	840	86
RTOR Reduction (vph)	0	0	243	0	0	0	0	5	0	0	6	0
Lane Group Flow (vph)	140	5	390	0	0	0	135	560	0	35	920	0
Confl. Peds. (#/hr)			10						6			5
Confl. Bikes (#/hr)			3						8			5
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	34.0	34.4	34.4				13.2	51.7		14.6	52.7	
Effective Green, g (s)	34.0	34.4	34.4				13.2	51.7		14.6	52.7	
Actuated g/C Ratio	0.28	0.29	0.29				0.11	0.43		0.12	0.44	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	501	534	441				194	1504		215	1526	
v/s Ratio Prot	0.08	0.00					c0.08	0.16		0.02	c0.26	
v/s Ratio Perm			c0.25									
v/c Ratio	0.28	0.01	0.89				0.70	0.37		0.16	0.60	
Uniform Delay, d1	33.5	30.6	40.9				51.5	23.2		47.2	25.7	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.0	18.7				10.3	0.7		0.4	1.8	
Delay (s)	33.8	30.6	59.6				61.8	23.9		47.6	27.4	
Level of Service	C	C	E				E	C		D	C	
Approach Delay (s)		54.8			0.0			31.2			28.2	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	37.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

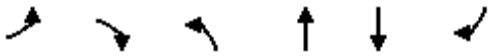
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	5	633	135	565	35	926
v/c Ratio	0.28	0.01	0.93	0.70	0.36	0.12	0.60
Control Delay	32.4	24.6	38.2	70.8	28.1	41.4	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	24.6	38.2	70.8	28.1	41.4	29.8
Queue Length 50th (ft)	65	2	194	81	142	18	234
Queue Length 95th (ft)	98	9	310	#147	206	42	330
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	501	703	793	203	1740	286	1533
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.01	0.80	0.67	0.32	0.12	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



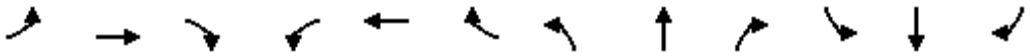
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	320	191	364	893	485	839
Future Volume (veh/h)	320	191	364	893	485	839
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	337	43	383	940	511	536
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	377	335	493	3368	1119	877
Arrive On Green	0.21	0.21	0.55	1.00	0.31	0.31
Sat Flow, veh/h	1781	1585	1781	5274	3647	2785
Grp Volume(v), veh/h	337	43	383	940	511	536
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1393
Q Serve(g_s), s	18.4	2.2	16.9	0.0	11.5	8.3
Cycle Q Clear(g_c), s	18.4	2.2	16.9	0.0	11.5	8.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	377	335	493	3368	1119	877
V/C Ratio(X)	0.89	0.13	0.78	0.28	0.46	0.61
Avail Cap(c_a), veh/h	499	444	493	3368	1119	877
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	38.4	32.0	19.9	0.0	27.4	7.5
Incr Delay (d2), s/veh	15.2	0.2	7.2	0.2	1.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.4	3.9	9.4	0.1	8.6	15.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.5	32.1	27.1	0.2	28.7	10.7
LnGrp LOS	D	C	C	A	C	B
Approach Vol, veh/h	380			1323	1047	
Approach Delay, s/veh	51.1			8.0	19.5	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		73.2		26.8	34.9	38.3
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 60		28.0	* 21	31.5
Max Q Clear Time (g_c+I1), s		2.0		20.4	18.9	13.5
Green Ext Time (p_c), s		8.1		0.7	0.3	5.4

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

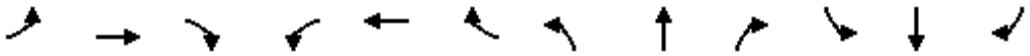
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	52	38	54	47	154	19	1006	67	122	522	27
Future Volume (veh/h)	101	52	38	54	47	154	19	1006	67	122	522	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	54	39	56	48	159	20	1037	69	126	538	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	90	54	231	183	392	61	2446	162	268	1939	101
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.51	0.51	0.08	0.57	0.57
Sat Flow, veh/h	499	347	209	675	701	1504	1781	4825	321	3456	3430	178
Grp Volume(v), veh/h	197	0	0	104	0	159	20	731	375	126	278	288
Grp Sat Flow(s),veh/h/ln	1055	0	0	1376	0	1504	1781	1702	1741	1728	1777	1831
Q Serve(g_s), s	12.7	0.0	0.0	0.0	0.0	8.7	1.1	13.5	13.5	3.5	8.1	8.1
Cycle Q Clear(g_c), s	18.4	0.0	0.0	5.7	0.0	8.7	1.1	13.5	13.5	3.5	8.1	8.1
Prop In Lane	0.53		0.20	0.54		1.00	1.00		0.18	1.00		0.10
Lane Grp Cap(c), veh/h	330	0	0	414	0	392	61	1726	883	268	1005	1036
V/C Ratio(X)	0.60	0.00	0.00	0.25	0.00	0.41	0.33	0.42	0.42	0.47	0.28	0.28
Avail Cap(c_a), veh/h	456	0	0	570	0	549	187	1726	883	415	1005	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.82	0.82	0.82	0.92	0.92	0.92
Uniform Delay (d), s/veh	35.2	0.0	0.0	29.3	0.0	30.6	47.2	15.5	15.5	44.2	11.2	11.2
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.3	0.0	0.7	1.0	0.6	1.2	0.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.0	0.0	3.7	0.0	5.9	0.9	8.4	8.8	2.7	5.6	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	0.0	29.6	0.0	31.3	48.1	16.1	16.7	44.6	11.8	11.8
LnGrp LOS	D	A	A	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		197			263			1126			692	
Approach Delay, s/veh		36.9			30.6			16.9			17.8	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	55.7		31.5	6.9	61.5		31.5				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	12.0	36.0		36.5	10.5	39.0		36.5				
Max Q Clear Time (g_c+I1), s	5.5	15.5		20.4	3.1	10.1		10.7				
Green Ext Time (p_c), s	0.1	9.9		1.1	0.0	5.1		1.2				

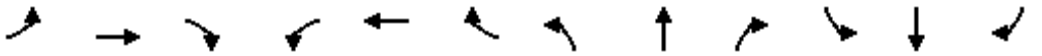
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	317	120	72	133	105	80	725	102	76	477	67
Future Volume (veh/h)	269	317	120	72	133	105	80	725	102	76	477	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.97	0.99		0.94	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	334	126	76	140	111	84	763	107	80	502	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	776	630	351	391	310	371	1625	597	275	1417	199
Arrive On Green	0.42	0.46	0.42	0.42	0.42	0.42	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1109	1870	1518	920	942	746	828	3554	1306	631	3100	436
Grp Volume(v), veh/h	283	334	126	76	0	251	84	763	107	80	286	287
Grp Sat Flow(s),veh/h/ln	1109	1870	1518	920	0	1688	828	1777	1306	631	1777	1759
Q Serve(g_s), s	21.2	10.9	4.8	5.7	0.0	9.2	6.6	13.4	4.4	9.0	9.4	9.5
Cycle Q Clear(g_c), s	30.4	10.9	4.8	16.6	0.0	9.2	16.1	13.4	4.4	22.4	9.4	9.5
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	427	776	630	351	0	701	371	1625	597	275	812	804
V/C Ratio(X)	0.66	0.43	0.20	0.22	0.00	0.36	0.23	0.47	0.18	0.29	0.35	0.36
Avail Cap(c_a), veh/h	478	862	700	393	0	778	371	1625	597	275	812	804
HCM Platoon Ratio	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	28.5	17.3	16.8	24.4	0.0	18.1	21.1	16.9	14.4	24.6	15.8	15.8
Incr Delay (d2), s/veh	3.5	0.6	0.2	0.5	0.0	0.5	1.4	1.0	0.7	2.6	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.4	7.6	2.9	2.3	0.0	6.5	2.5	9.1	2.4	2.7	6.9	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	17.8	17.0	25.0	0.0	18.6	22.5	17.9	15.1	27.2	17.0	17.0
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		743			327			954			653	
Approach Delay, s/veh		23.1			20.1			18.0			18.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		47.1		42.9		47.1		42.9				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		37.0		41.5		37.0		41.5				
Max Q Clear Time (g_c+I1), s		18.1		32.4		24.4		18.6				
Green Ext Time (p_c), s		9.0		3.9		4.9		3.3				

Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1459	437	628	655	10	765	10	377	9	24	29
Future Volume (veh/h)	45	1459	437	628	655	10	765	10	377	9	24	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	1578	387	641	668	10	788	0	72	9	24	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2301	856	553	1980	30	847	0	377	14	36	45
Arrive On Green	0.08	0.31	0.31	0.16	0.38	0.38	0.24	0.00	0.24	0.06	0.06	0.06
Sat Flow, veh/h	1781	7481	1557	3456	5166	77	3563	0	1585	213	567	709
Grp Volume(v), veh/h	46	1578	387	641	440	238	788	0	72	63	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1728	1702	1839	1781	0	1585	1489	0	0
Q Serve(g_s), s	2.5	19.4	15.8	16.8	9.6	9.6	22.7	0.0	3.8	4.3	0.0	0.0
Cycle Q Clear(g_c), s	2.5	19.4	15.8	16.8	9.6	9.6	22.7	0.0	3.8	4.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.14		0.48
Lane Grp Cap(c), veh/h	150	2301	856	553	1304	705	847	0	377	95	0	0
V/C Ratio(X)	0.31	0.69	0.45	1.16	0.34	0.34	0.93	0.00	0.19	0.66	0.00	0.00
Avail Cap(c_a), veh/h	204	2301	856	553	1304	705	858	0	382	199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.2	31.9	14.4	44.1	22.9	22.9	39.2	0.0	31.9	48.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	1.7	1.7	90.5	0.7	1.3	16.2	0.0	0.2	7.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	13.5	14.0	21.4	6.9	7.6	17.2	0.0	2.6	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	33.6	16.2	134.6	23.6	24.2	55.4	0.0	32.2	55.6	0.0	0.0
LnGrp LOS	D	C	B	F	C	C	E	A	C	E	A	A
Approach Vol, veh/h		2011			1319			860			63	
Approach Delay, s/veh		30.5			77.7			53.4			55.6	
Approach LOS		C			E			D			E	

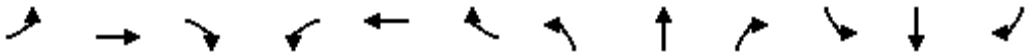
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.7	24.0	39.1		11.2	16.1	47.0				
Change Period (Y+Rc), s		5.7	7.2	* 6.8		4.5	7.2	* 6.8				
Max Green Setting (Gmax), s		25.3	16.8	* 25		14.0	12.0	* 30				
Max Q Clear Time (g_c+I1), s		24.7	18.8	21.4		6.3	4.5	11.6				
Green Ext Time (p_c), s		0.2	0.0	2.8		0.1	0.0	3.8				

Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	522	195	184	1069	145	129	324	163	195	338	105
Future Volume (veh/h)	90	522	195	184	1069	145	129	324	163	195	338	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	544	203	192	1114	151	134	338	170	203	352	109
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1599	675	330	1599	595	263	804	652	350	521	161
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	438	3554	1500	713	3554	1323	929	1870	1517	889	1212	375
Grp Volume(v), veh/h	94	544	203	192	1114	151	134	338	170	203	0	461
Grp Sat Flow(s),veh/h/ln	438	1777	1500	713	1777	1323	929	1870	1517	889	0	1587
Q Serve(g_s), s	17.9	8.9	7.7	21.6	22.6	6.4	12.2	11.3	6.5	18.5	0.0	21.0
Cycle Q Clear(g_c), s	40.5	8.9	7.7	30.5	22.6	6.4	33.2	11.3	6.5	29.9	0.0	21.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	167	1599	675	330	1599	595	263	804	652	350	0	682
V/C Ratio(X)	0.56	0.34	0.30	0.58	0.70	0.25	0.51	0.42	0.26	0.58	0.00	0.68
Avail Cap(c_a), veh/h	167	1599	675	330	1599	595	263	804	652	350	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	16.1	15.7	26.0	19.8	15.4	33.9	17.8	16.5	28.2	0.0	20.6
Incr Delay (d2), s/veh	13.0	0.6	1.1	7.3	2.5	1.0	6.9	1.6	1.0	6.8	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	6.2	4.8	7.3	13.9	3.5	5.7	8.6	4.1	7.9	0.0	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	16.7	16.9	33.3	22.4	16.4	40.9	19.5	17.4	35.1	0.0	25.9
LnGrp LOS	D	B	B	C	C	B	D	B	B	D	A	C
Approach Vol, veh/h		841			1457			642			664	
Approach Delay, s/veh		20.4			23.2			23.4			28.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.0		46.0		44.0		46.0				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 39		* 41		* 39		* 41				
Max Q Clear Time (g_c+I1), s		35.2		42.5		31.9		32.5				
Green Ext Time (p_c), s		1.1		0.0		2.2		5.2				

Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	4	14	3	35	6	563	14	21	687	8
Future Vol, veh/h	18	0	4	14	3	35	6	563	14	21	687	8
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	0	4	16	3	39	7	626	16	23	763	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1150	1481	395	1082	1477	325	779	0	0	646	0	0
Stage 1	821	821	-	652	652	-	-	-	-	-	-	-
Stage 2	329	660	-	430	825	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*255	164	604	293	166	*880	834	-	-	1208	-	-
Stage 1	*335	387	-	717	652	-	-	-	-	-	-	-
Stage 2	*830	646	-	574	385	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*230	155	599	278	156	*877	828	-	-	1204	-	-
Mov Cap-2 Maneuver	*230	155	-	278	156	-	-	-	-	-	-	-
Stage 1	*328	371	-	705	641	-	-	-	-	-	-	-
Stage 2	*778	635	-	549	369	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.3	13.6	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	828	-	-	259	475	1204	-	-
HCM Lane V/C Ratio	0.008	-	-	0.094	0.122	0.019	-	-
HCM Control Delay (s)	9.4	0.1	-	20.3	13.6	8	0.1	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

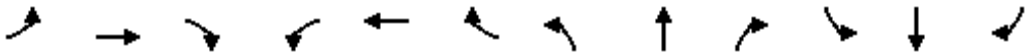
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	4	1	0	10	6	569	3	6	692	4
Future Vol, veh/h	6	0	4	1	0	10	6	569	3	6	692	4
Conflicting Peds, #/hr	0	0	1	1	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	4	1	0	11	7	632	3	7	769	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1125	1450	398	1054	1451	324	783	0	0	641	0	0
Stage 1	795	795	-	654	654	-	-	-	-	-	-	-
Stage 2	330	655	-	400	797	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*268	173	601	310	173	*880	831	-	-	1215	-	-
Stage 1	*347	398	-	715	651	-	-	-	-	-	-	-
Stage 2	*830	650	-	597	397	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*258	166	595	301	166	*875	823	-	-	1208	-	-
Mov Cap-2 Maneuver	*258	166	-	301	166	-	-	-	-	-	-	-
Stage 1	*339	390	-	701	638	-	-	-	-	-	-	-
Stage 2	*808	638	-	586	389	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	9.9	0.2	0.1
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	823	-	-	334	746	1208	-	-
HCM Lane V/C Ratio	0.008	-	-	0.033	0.016	0.006	-	-
HCM Control Delay (s)	9.4	0.1	-	16.1	9.9	8	0	-
HCM Lane LOS	A	A	-	C	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

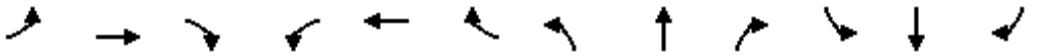
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	31	58	33	23	34	8	539	74	60	592	5
Future Volume (veh/h)	30	31	58	33	23	34	8	539	74	60	592	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	35	65	37	26	38	9	606	83	67	665	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	70	98	119	77	79	57	2086	282	215	2039	18
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	232	475	666	365	521	534	11	2847	385	216	2784	25
Grp Volume(v), veh/h	134	0	0	101	0	0	399	0	299	381	0	357
Grp Sat Flow(s),veh/h/ln	1373	0	0	1420	0	0	1854	0	1389	1549	0	1476
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	6.4
Cycle Q Clear(g_c), s	6.7	0.0	0.0	4.6	0.0	0.0	5.4	0.0	5.5	5.1	0.0	6.4
Prop In Lane	0.25		0.49	0.37		0.38	0.02		0.28	0.18		0.02
Lane Grp Cap(c), veh/h	263	0	0	275	0	0	1408	0	1018	1191	0	1081
V/C Ratio(X)	0.51	0.00	0.00	0.37	0.00	0.00	0.28	0.00	0.29	0.32	0.00	0.33
Avail Cap(c_a), veh/h	601	0	0	605	0	0	1408	0	1018	1191	0	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	0.0	29.3	0.0	0.0	3.4	0.0	3.4	3.4	0.0	3.5
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.7	0.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	0.0	0.0	3.1	0.0	0.0	2.6	0.0	2.1	2.5	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	0.0	30.1	0.0	0.0	3.9	0.0	4.2	4.1	0.0	4.4
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		134			101			698			738	
Approach Delay, s/veh		31.6			30.1			4.0			4.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.4		15.6		59.4		15.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		7.5		8.7		8.4		6.6				
Green Ext Time (p_c), s		6.5		0.7		7.1		0.5				

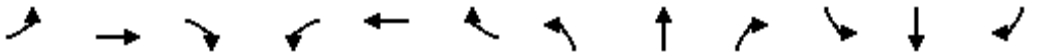
Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	501	127	66	454	185	125	272	100	203	347	93
Future Volume (veh/h)	171	501	127	66	454	185	125	272	100	203	347	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.98		0.93	0.95		0.82	0.92		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	583	148	77	528	96	145	316	116	236	403	108
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	828	646	232	828	654	428	957	333	382	1150	303
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.85	0.85	0.85
Sat Flow, veh/h	785	1870	1459	714	1870	1478	848	2256	785	881	2713	714
Grp Volume(v), veh/h	199	583	148	77	528	96	145	245	187	236	261	250
Grp Sat Flow(s),veh/h/ln	785	1870	1459	714	1870	1478	848	1777	1264	881	1777	1651
Q Serve(g_s), s	16.8	18.9	4.7	7.3	16.4	2.9	9.4	6.9	7.5	15.2	2.4	2.5
Cycle Q Clear(g_c), s	33.2	18.9	4.7	26.3	16.4	2.9	11.9	6.9	7.5	22.7	2.4	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.43
Lane Grp Cap(c), veh/h	271	828	646	232	828	654	428	753	536	382	753	700
V/C Ratio(X)	0.73	0.70	0.23	0.33	0.64	0.15	0.34	0.33	0.35	0.62	0.35	0.36
Avail Cap(c_a), veh/h	271	828	646	232	828	654	430	758	539	384	758	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	16.9	13.0	27.6	16.2	12.5	16.8	14.4	14.6	7.8	3.5	3.5
Incr Delay (d2), s/veh	16.1	5.0	0.8	3.6	3.6	0.4	0.8	0.4	0.7	3.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	13.1	2.8	2.6	11.3	1.7	3.2	4.7	3.7	2.1	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	21.9	13.8	31.2	19.8	12.9	17.6	14.9	15.3	11.7	3.9	4.0
LnGrp LOS	D	C	B	C	B	B	B	B	B	B	A	A
Approach Vol, veh/h		930			701			577			747	
Approach Delay, s/veh		25.8			20.1			15.7			6.4	
Approach LOS		C			C			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.8		38.2		36.8		38.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		13.9		35.2		24.7		28.3				
Green Ext Time (p_c), s		5.1		0.0		3.6		2.4				

Intersection Summary												
HCM 6th Ctrl Delay			17.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	460	55	98	448	5	69	0	72	4	1	11
Future Volume (veh/h)	31	460	55	98	448	5	69	0	72	4	1	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.91	0.98		0.87	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	529	63	113	515	6	79	0	83	5	1	13
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	602	1367	917	582	1198	14	305	0	250	92	37	170
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.16	0.00	0.16	0.16	0.16	0.16
Sat Flow, veh/h	859	1870	1255	804	1639	19	1373	0	1527	255	225	1039
Grp Volume(v), veh/h	36	529	63	113	0	521	79	0	83	19	0	0
Grp Sat Flow(s),veh/h/ln	859	1870	1255	804	0	1658	1373	0	1527	1519	0	0
Q Serve(g_s), s	1.5	9.6	1.3	5.5	0.0	11.1	3.5	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.6	9.6	1.3	15.1	0.0	11.1	4.4	0.0	4.3	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.26		0.68
Lane Grp Cap(c), veh/h	602	1367	917	582	0	1212	305	0	250	299	0	0
V/C Ratio(X)	0.06	0.39	0.07	0.19	0.00	0.43	0.26	0.00	0.33	0.06	0.00	0.00
Avail Cap(c_a), veh/h	602	1367	917	582	0	1212	556	0	534	572	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.69	0.00	0.69	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.2	4.5	3.4	7.4	0.0	4.8	33.2	0.0	33.3	31.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.1	0.5	0.0	0.8	0.4	0.0	0.8	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	5.2	0.5	1.6	0.0	5.4	2.8	0.0	3.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	5.1	3.5	7.9	0.0	5.5	33.7	0.0	34.1	31.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		628			634			162			19	
Approach Delay, s/veh		5.1			5.9			33.9			31.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		70.8		19.2		70.8				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.5		49.0		31.5		49.0				
Max Q Clear Time (g_c+I1), s		6.4		14.6		2.9		17.1				
Green Ext Time (p_c), s		0.7		2.3		0.1		7.4				

Intersection Summary												
HCM 6th Ctrl Delay			9.0									
HCM 6th LOS			A									

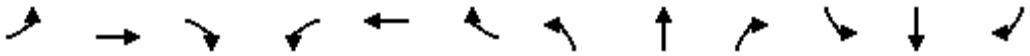
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	91	4	5	177	16	0	1	1	37	0	9
Future Vol, veh/h	4	91	4	5	177	16	0	1	1	37	0	9
Conflicting Peds, #/hr	13	0	31	31	0	13	7	0	0	0	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	108	5	6	211	19	0	1	1	44	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	243	0	0	144	0	0	397	407	142	368	400	241
Stage 1	-	-	-	-	-	-	152	152	-	246	246	-
Stage 2	-	-	-	-	-	-	245	255	-	122	154	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1323	-	-	1450	-	-	583	546	941	610	550	798
Stage 1	-	-	-	-	-	-	880	786	-	758	703	-
Stage 2	-	-	-	-	-	-	759	696	-	914	784	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1307	-	-	1407	-	-	550	518	913	597	523	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	550	518	-	597	523	-
Stage 1	-	-	-	-	-	-	851	759	-	746	691	-
Stage 2	-	-	-	-	-	-	740	684	-	908	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	10.5	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	661	1307	-	-	1407	-	-	626
HCM Lane V/C Ratio	0.004	0.004	-	-	0.004	-	-	0.087
HCM Control Delay (s)	10.5	7.8	0	-	7.6	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	8	275	0	0	0	100	501	37	23	923	124
Future Volume (vph)	116	8	275	0	0	0	100	501	37	23	923	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.98				1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557				1770	3495		1770	3457	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1557				1770	3495		1770	3457	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	121	8	286	0	0	0	104	522	39	24	961	129
RTOR Reduction (vph)	0	0	252	0	0	0	0	3	0	0	5	0
Lane Group Flow (vph)	121	8	34	0	0	0	104	558	0	24	1085	0
Confl. Peds. (#/hr)			2						9			8
Confl. Bikes (#/hr)			1						1			8
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	13.8	14.2	14.2				12.2	75.4		11.1	73.9	
Effective Green, g (s)	13.8	14.2	14.2				12.2	75.4		11.1	73.9	
Actuated g/C Ratio	0.12	0.12	0.12				0.10	0.63		0.09	0.62	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	203	220	184				179	2196		163	2128	
v/s Ratio Prot	c0.07	0.00					c0.06	0.16		0.01	c0.31	
v/s Ratio Perm			0.02									
v/c Ratio	0.60	0.04	0.18				0.58	0.25		0.15	0.51	
Uniform Delay, d1	50.5	46.8	47.7				51.5	9.9		50.1	12.9	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.6	0.1	0.5				4.7	0.3		0.4	0.9	
Delay (s)	55.1	46.9	48.2				56.2	10.1		50.5	13.8	
Level of Service	E	D	D				E	B		D	B	
Approach Delay (s)		50.2			0.0			17.3			14.6	
Approach LOS		D			A			B			B	

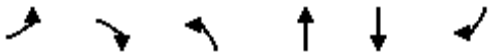
Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	121	8	286	104	561	24	1090
v/c Ratio	0.59	0.04	0.65	0.58	0.24	0.09	0.51
Control Delay	62.0	44.9	13.0	64.9	12.2	40.2	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	44.9	13.0	64.9	12.2	40.2	14.2
Queue Length 50th (ft)	73	5	0	62	39	14	183
Queue Length 95th (ft)	118	16	64	110	155	30	253
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	216	664	740	182	2316	270	2130
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.01	0.39	0.57	0.24	0.09	0.51

Intersection Summary



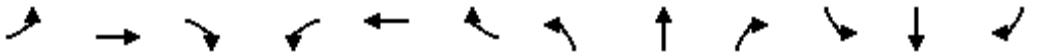
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	569	676	349	644	564	632
Future Volume (veh/h)	569	676	349	644	564	632
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	599	345	367	678	594	437
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	593	528	456	2747	760	575
Arrive On Green	0.33	0.33	0.51	1.00	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	5274	3647	2688
Grp Volume(v), veh/h	599	345	367	678	594	437
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1344
Q Serve(g_s), s	33.3	18.6	17.1	0.0	15.8	6.4
Cycle Q Clear(g_c), s	33.3	18.6	17.1	0.0	15.8	6.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	593	528	456	2747	760	575
V/C Ratio(X)	1.01	0.65	0.80	0.25	0.78	0.76
Avail Cap(c_a), veh/h	593	528	456	2767	931	704
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	33.3	28.4	22.3	0.0	37.1	6.4
Incr Delay (d2), s/veh	39.4	2.9	9.7	0.2	7.9	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	27.8	23.0	10.1	0.1	12.0	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.8	31.3	32.0	0.2	45.0	15.6
LnGrp LOS	F	C	C	A	D	B
Approach Vol, veh/h	944			1045	1031	
Approach Delay, s/veh	57.6			11.4	32.5	
Approach LOS	E			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		61.0		39.0	32.8	28.2
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 54		33.3	* 21	26.2
Max Q Clear Time (g_c+I1), s		2.0		35.3	19.1	17.8
Green Ext Time (p_c), s		5.1		0.0	0.2	3.6

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

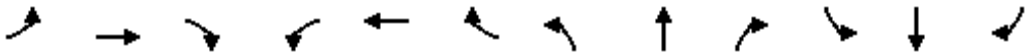
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	41	44	46	35	60	50	884	69	69	1016	154
Future Volume (veh/h)	47	41	44	46	35	60	50	884	69	69	1016	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.96		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	43	46	48	37	23	53	931	73	73	1069	162
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	121	109	242	172	371	110	2518	197	240	1699	257
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.06	0.53	0.53	0.09	0.73	0.73
Sat Flow, veh/h	389	492	441	751	696	1504	1781	4763	372	3456	3081	466
Grp Volume(v), veh/h	138	0	0	85	0	23	53	665	339	73	616	615
Grp Sat Flow(s),veh/h/ln	1322	0	0	1446	0	1504	1781	1702	1732	1728	1777	1770
Q Serve(g_s), s	4.5	0.0	0.0	0.0	0.0	1.2	2.9	11.4	11.5	2.0	17.1	17.3
Cycle Q Clear(g_c), s	9.0	0.0	0.0	4.5	0.0	1.2	2.9	11.4	11.5	2.0	17.1	17.3
Prop In Lane	0.36		0.33	0.56		1.00	1.00		0.22	1.00		0.26
Lane Grp Cap(c), veh/h	375	0	0	414	0	371	110	1799	915	240	980	976
V/C Ratio(X)	0.37	0.00	0.00	0.21	0.00	0.06	0.48	0.37	0.37	0.30	0.63	0.63
Avail Cap(c_a), veh/h	477	0	0	525	0	486	148	1799	915	276	980	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.82	0.82	0.82	0.59	0.59	0.59
Uniform Delay (d), s/veh	31.7	0.0	0.0	29.9	0.0	28.8	45.4	13.8	13.8	43.1	8.3	8.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	0.1	1.0	0.5	0.9	0.2	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	0.0	0.0	3.0	0.0	0.8	2.3	7.3	7.6	1.5	7.6	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	0.0	30.1	0.0	28.9	46.4	14.3	14.8	43.3	10.1	10.1
LnGrp LOS	C	A	A	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		138			108			1057			1304	
Approach Delay, s/veh		32.3			29.9			16.1			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	57.9		30.2	9.7	60.1		30.2				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	8.0	44.2		32.3	8.3	45.4		32.3				
Max Q Clear Time (g_c+I1), s	4.0	13.5		11.0	4.9	19.3		6.5				
Green Ext Time (p_c), s	0.0	10.4		0.7	0.0	12.8		0.5				

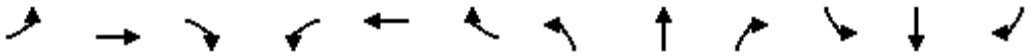
Intersection Summary			
HCM 6th Ctrl Delay		15.4	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	157	132	127	251	170	111	627	43	109	701	296
Future Volume (veh/h)	201	157	132	127	251	170	111	627	43	109	701	296
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.95	0.99		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	167	140	135	267	181	118	667	46	116	746	315
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	790	655	497	432	293	186	1599	596	316	1076	454
Arrive On Green	0.71	0.71	0.71	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	939	1870	1550	1067	1023	693	530	3554	1325	731	2391	1009
Grp Volume(v), veh/h	214	167	140	135	0	448	118	667	46	116	554	507
Grp Sat Flow(s),veh/h/ln	939	1870	1550	1067	0	1716	530	1777	1325	731	1777	1623
Q Serve(g_s), s	19.6	2.8	2.8	7.9	0.0	18.4	18.0	11.4	1.8	11.5	22.4	22.5
Cycle Q Clear(g_c), s	38.0	2.8	2.8	10.7	0.0	18.4	40.5	11.4	1.8	22.9	22.4	22.5
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	285	790	655	497	0	725	186	1599	596	316	800	730
V/C Ratio(X)	0.75	0.21	0.21	0.27	0.00	0.62	0.63	0.42	0.08	0.37	0.69	0.69
Avail Cap(c_a), veh/h	285	790	655	497	0	725	186	1599	596	316	800	730
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	22.9	8.1	8.1	19.1	0.0	20.3	36.9	16.8	14.1	24.5	19.8	19.8
Incr Delay (d2), s/veh	11.1	0.2	0.3	0.5	0.0	2.1	15.3	0.8	0.3	2.7	4.1	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	1.9	1.6	3.6	0.0	12.1	6.0	8.0	1.0	3.9	14.1	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	8.3	8.3	19.6	0.0	22.4	52.2	17.6	14.4	27.2	23.9	24.3
LnGrp LOS	C	A	A	B	A	C	D	B	B	C	C	C
Approach Vol, veh/h		521			583			831			1177	
Approach Delay, s/veh		18.9			21.7			22.3			24.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.5		43.5		46.5		43.5				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		40.5		38.0		40.5		38.0				
Max Q Clear Time (g_c+I1), s		42.5		40.0		24.9		20.4				
Green Ext Time (p_c), s		0.0		0.0		9.8		5.4				

Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	903	408	788	1106	12	620	5	170	19	86	56
Future Volume (veh/h)	29	903	408	788	1106	12	620	5	170	19	86	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	876	491	838	1177	13	664	0	27	20	91	60
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	1257	1298	787	1991	22	672	0	299	23	106	70
Arrive On Green	0.07	0.22	0.22	0.23	0.38	0.38	0.19	0.00	0.19	0.13	0.13	0.13
Sat Flow, veh/h	1781	5611	3125	3456	5190	57	3563	0	1585	178	810	534
Grp Volume(v), veh/h	31	876	491	838	772	418	664	0	27	171	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1562	1728	1702	1843	1781	0	1585	1522	0	0
Q Serve(g_s), s	1.7	15.1	11.5	23.9	19.0	19.0	19.5	0.0	1.5	11.5	0.0	0.0
Cycle Q Clear(g_c), s	1.7	15.1	11.5	23.9	19.0	19.0	19.5	0.0	1.5	11.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.12		0.35
Lane Grp Cap(c), veh/h	121	1257	1298	787	1306	707	672	0	299	200	0	0
V/C Ratio(X)	0.26	0.70	0.38	1.07	0.59	0.59	0.99	0.00	0.09	0.86	0.00	0.00
Avail Cap(c_a), veh/h	204	1257	1298	787	1306	707	672	0	299	261	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.4	37.5	21.5	40.5	25.8	25.8	42.5	0.0	35.2	44.6	0.0	0.0
Incr Delay (d2), s/veh	1.1	3.2	0.8	50.9	2.0	3.6	31.7	0.0	0.1	19.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	11.4	9.7	22.5	12.2	13.4	16.9	0.0	1.0	9.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	40.7	22.3	91.5	27.8	29.4	74.2	0.0	35.3	63.7	0.0	0.0
LnGrp LOS	D	D	C	F	C	C	E	A	D	E	A	A
Approach Vol, veh/h		1398			2028			691			171	
Approach Delay, s/veh		34.4			54.4			72.7			63.7	
Approach LOS		C			D			E			E	

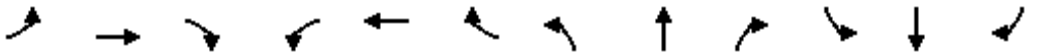
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	25.5	31.1	30.3	18.1	14.3	47.1
Change Period (Y+Rc), s	5.7	7.2	* 6.8	4.3	7.2	* 6.8
Max Green Setting (Gmax), s	19.8	23.9	* 19	18.0	12.0	* 31
Max Q Clear Time (g_c+I1), s	21.5	25.9	17.1	13.5	3.7	21.0
Green Ext Time (p_c), s	0.0	0.0	1.5	0.3	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1368	120	102	781	280	124	327	353	188	290	116
Future Volume (veh/h)	107	1368	120	102	781	280	124	327	353	188	290	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1396	122	104	797	286	127	334	360	192	296	118
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1548	646	104	1548	567	318	831	673	322	499	199
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	520	3554	1483	344	3554	1303	969	1870	1514	748	1123	448
Grp Volume(v), veh/h	109	1396	122	104	797	286	127	334	360	192	0	414
Grp Sat Flow(s),veh/h/ln	520	1777	1483	344	1777	1303	969	1870	1514	748	0	1570
Q Serve(g_s), s	17.4	32.9	4.6	6.3	14.7	14.3	10.2	10.9	15.6	21.0	0.0	17.9
Cycle Q Clear(g_c), s	32.1	32.9	4.6	39.2	14.7	14.3	28.1	10.9	15.6	31.9	0.0	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	222	1548	646	104	1548	567	318	831	673	322	0	698
V/C Ratio(X)	0.49	0.90	0.19	1.00	0.51	0.50	0.40	0.40	0.54	0.60	0.00	0.59
Avail Cap(c_a), veh/h	222	1548	646	104	1548	567	318	831	673	322	0	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	23.6	15.6	44.3	18.5	18.4	29.5	16.9	18.2	27.7	0.0	18.9
Incr Delay (d2), s/veh	7.6	8.9	0.6	87.7	1.2	3.2	3.7	1.4	3.0	7.9	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	20.5	2.8	8.4	9.7	7.9	4.7	8.3	9.6	7.7	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	32.5	16.3	131.9	19.7	21.5	33.2	18.4	21.3	35.6	0.0	22.5
LnGrp LOS	D	C	B	F	B	C	C	B	C	D	A	C
Approach Vol, veh/h		1627			1187			821			606	
Approach Delay, s/veh		31.6			30.0			21.9			26.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.3		44.7		45.3		44.7				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 40		* 39		* 40		* 39				
Max Q Clear Time (g_c+I1), s		30.1		34.9		33.9		41.2				
Green Ext Time (p_c), s		2.8		3.4		2.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		28.6
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	4	1	2	7	0	32	2	819	15	27	437	17
Future Vol, veh/h	4	1	2	7	0	32	2	819	15	27	437	17
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	2	7	0	33	2	844	15	28	451	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	949	1390	244	1144	1392	434	476	0	0	863	0	0
Stage 1	523	523	-	860	860	-	-	-	-	-	-	-
Stage 2	426	867	-	284	532	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*624	*250	757	*398	*249	*763	1082	-	-	*1141	-	-
Stage 1	*505	*529	-	*719	*631	-	-	-	-	-	-	-
Stage 2	*719	*631	-	*699	*524	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*576	*238	751	*382	*237	*760	1075	-	-	*1137	-	-
Mov Cap-2 Maneuver	*576	*238	-	*382	*237	-	-	-	-	-	-	-
Stage 1	*499	*508	-	*714	*626	-	-	-	-	-	-	-
Stage 2	*685	*626	-	*671	*503	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	11	0	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1075	-	-	507	645	* 1137	-	-
HCM Lane V/C Ratio	0.002	-	-	0.014	0.062	0.024	-	-
HCM Control Delay (s)	8.4	0	-	12.2	11	8.2	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

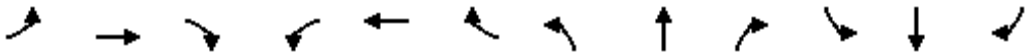
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕↔			↕↔	
Traffic Vol, veh/h	9	1	1	2	0	6	2	819	5	12	422	10
Future Vol, veh/h	9	1	1	2	0	6	2	819	5	12	422	10
Conflicting Peds, #/hr	0	0	4	4	0	0	9	0	5	5	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	1	2	0	6	2	844	5	12	435	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	899	1331	236	1102	1334	430	454	0	0	854	0	0
Stage 1	473	473	-	856	856	-	-	-	-	-	-	-
Stage 2	426	858	-	246	478	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*664	*279	766	*439	*278	*763	1103	-	-	*1141	-	-
Stage 1	*541	*557	-	*719	*631	-	-	-	-	-	-	-
Stage 2	*577	*631	-	*736	*554	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*644	*270	757	*428	*269	*759	1094	-	-	*1136	-	-
Mov Cap-2 Maneuver	*644	*270	-	*428	*269	-	-	-	-	-	-	-
Stage 1	*535	*544	-	*714	*626	-	-	-	-	-	-	-
Stage 2	*571	*626	-	*721	*541	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	10.7	0	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	579	636	* 1136	-	-
HCM Lane V/C Ratio	0.002	-	-	0.02	0.013	0.011	-	-
HCM Control Delay (s)	8.3	0	-	11.3	10.7	8.2	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

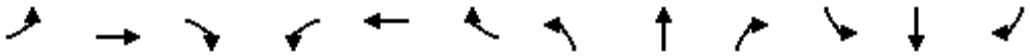
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	15	17	50	13	53	11	761	46	29	386	8
Future Volume (veh/h)	16	15	17	50	13	53	11	761	46	29	386	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.98	0.99		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	15	18	52	13	55	11	785	47	30	398	8
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	81	70	127	36	80	59	2314	137	166	2133	43
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	298	611	528	438	271	600	13	3098	184	149	2857	58
Grp Volume(v), veh/h	49	0	0	120	0	0	476	0	367	232	0	204
Grp Sat Flow(s),veh/h/ln	1437	0	0	1309	0	0	1859	0	1436	1595	0	1468
Q Serve(g_s), s	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	6.5	0.0	0.0	3.1
Cycle Q Clear(g_c), s	2.2	0.0	0.0	6.4	0.0	0.0	6.5	0.0	6.5	2.7	0.0	3.1
Prop In Lane	0.33		0.37	0.43		0.46	0.02		0.13	0.13		0.04
Lane Grp Cap(c), veh/h	255	0	0	243	0	0	1437	0	1073	1246	0	1096
V/C Ratio(X)	0.19	0.00	0.00	0.49	0.00	0.00	0.33	0.00	0.34	0.19	0.00	0.19
Avail Cap(c_a), veh/h	612	0	0	589	0	0	1437	0	1073	1246	0	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	0.0	30.9	0.0	0.0	3.2	0.0	3.2	2.7	0.0	2.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.5	0.0	0.0	0.6	0.0	0.9	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.0	3.8	0.0	0.0	2.9	0.0	2.4	1.2	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	32.4	0.0	0.0	3.8	0.0	4.1	3.1	0.0	3.2
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		49			120			843			436	
Approach Delay, s/veh		29.5			32.4			4.0			3.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.5		14.5		60.5		14.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		8.5		4.2		5.1		8.4				
Green Ext Time (p_c), s		8.0		0.2		3.9		0.6				

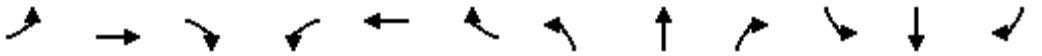
Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	434	184	29	268	110	88	341	64	73	278	110
Future Volume (veh/h)	335	434	184	29	268	110	88	341	64	73	278	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.97	0.99		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	353	457	194	31	282	116	93	359	67	77	293	116
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	556	1028	846	410	1028	847	312	874	161	298	787	303
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	979	1870	1540	777	1870	1542	968	2755	506	947	2481	956
Grp Volume(v), veh/h	353	457	194	31	282	116	93	229	197	77	208	201
Grp Sat Flow(s),veh/h/ln	979	1870	1540	777	1870	1542	968	1777	1485	947	1777	1660
Q Serve(g_s), s	22.4	10.9	4.9	1.9	6.0	2.7	6.2	7.6	7.8	5.2	6.8	7.1
Cycle Q Clear(g_c), s	28.4	10.9	4.9	12.8	6.0	2.7	13.3	7.6	7.8	13.0	6.8	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.58
Lane Grp Cap(c), veh/h	556	1028	846	410	1028	847	312	564	471	298	564	527
V/C Ratio(X)	0.64	0.44	0.23	0.08	0.27	0.14	0.30	0.41	0.42	0.26	0.37	0.38
Avail Cap(c_a), veh/h	556	1028	846	410	1028	847	418	758	633	402	758	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	10.1	8.7	13.9	9.0	8.2	25.1	20.1	20.1	25.3	19.8	19.9
Incr Delay (d2), s/veh	5.5	1.4	0.6	0.4	0.7	0.3	0.9	0.8	1.0	0.8	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.0	7.5	2.8	0.6	4.1	1.6	2.6	5.5	4.8	2.1	4.9	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	11.5	9.3	14.2	9.6	8.6	26.0	20.9	21.2	26.1	20.5	20.7
LnGrp LOS	C	B	A	B	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1004			429			519			486	
Approach Delay, s/veh		14.8			9.7			21.9			21.4	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.8		46.2		28.8		46.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		15.3		30.4		15.0		14.8				
Green Ext Time (p_c), s		4.2		1.7		4.0		3.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	533	23	42	256	1	54	0	108	5	0	2
Future Volume (veh/h)	1	533	23	42	256	1	54	0	108	5	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.99		0.92	0.96		0.94	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	620	27	49	298	1	63	0	126	6	0	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	760	1326	934	519	1175	4	343	0	275	219	10	53
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.19	0.00	0.19	0.19	0.00	0.19
Sat Flow, veh/h	1054	1870	1316	777	1658	6	1419	0	1483	802	53	285
Grp Volume(v), veh/h	1	620	27	49	0	299	63	0	126	8	0	0
Grp Sat Flow(s),veh/h/ln	1054	1870	1316	777	0	1663	1419	0	1483	1140	0	0
Q Serve(g_s), s	0.0	13.0	0.5	2.6	0.0	5.7	0.0	0.0	6.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	13.0	0.5	15.6	0.0	5.7	2.8	0.0	6.8	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	760	1326	934	519	0	1179	343	0	275	281	0	0
V/C Ratio(X)	0.00	0.47	0.03	0.09	0.00	0.25	0.18	0.00	0.46	0.03	0.00	0.00
Avail Cap(c_a), veh/h	760	1326	934	519	0	1179	559	0	511	486	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.94	0.00	0.94	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.7	5.7	3.9	9.1	0.0	4.6	31.0	0.0	32.6	30.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.1	0.3	0.0	0.5	0.3	0.0	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.5	0.2	0.8	0.0	3.0	2.1	0.0	4.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	6.8	3.9	9.4	0.0	5.1	31.3	0.0	33.8	30.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		648			348			189			8	
Approach Delay, s/veh		6.7			5.7			33.0			30.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.2		68.8		21.2		68.8				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.0		49.5		31.0		49.5				
Max Q Clear Time (g_c+I1), s		8.8		15.0		4.8		17.6				
Green Ext Time (p_c), s		0.7		2.6		0.0		3.6				

Intersection Summary												
HCM 6th Ctrl Delay			10.7									
HCM 6th LOS			B									

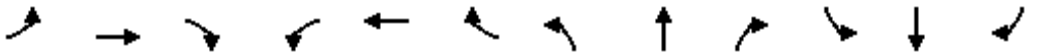
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	148	2	9	59	37	3	0	6	18	1	8
Future Vol, veh/h	4	148	2	9	59	37	3	0	6	18	1	8
Conflicting Peds, #/hr	10	0	16	16	0	10	3	0	4	4	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	190	3	12	76	47	4	0	8	23	1	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	209	0	0	350	375	212	344	353	113
Stage 1	-	-	-	-	-	-	218	218	-	134	134	-
Stage 2	-	-	-	-	-	-	132	157	-	210	219	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1452	-	-	1378	-	-	650	582	883	657	600	940
Stage 1	-	-	-	-	-	-	830	744	-	869	785	-
Stage 2	-	-	-	-	-	-	871	768	-	839	743	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1438	-	-	1357	-	-	623	560	866	636	578	928
Mov Cap-2 Maneuver	-	-	-	-	-	-	623	560	-	636	578	-
Stage 1	-	-	-	-	-	-	814	730	-	858	769	-
Stage 2	-	-	-	-	-	-	849	753	-	825	729	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	9.8	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1438	-	-	1357	-	-	699
HCM Lane V/C Ratio	0.015	0.004	-	-	0.009	-	-	0.05
HCM Control Delay (s)	9.8	7.5	0	-	7.7	0	-	10.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	5	601	0	0	0	128	497	40	33	807	82
Future Volume (vph)	133	5	601	0	0	0	128	497	40	33	807	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.97				1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1541				1770	3493		1770	3478	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1541				1770	3493		1770	3478	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	145	5	653	0	0	0	139	540	43	36	877	89
RTOR Reduction (vph)	0	0	234	0	0	0	0	5	0	0	6	0
Lane Group Flow (vph)	145	5	419	0	0	0	139	578	0	36	960	0
Confl. Peds. (#/hr)			10						6			5
Confl. Bikes (#/hr)			3						8			5
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	36.2	36.6	36.6				13.2	49.4		14.7	50.5	
Effective Green, g (s)	36.2	36.6	36.6				13.2	49.4		14.7	50.5	
Actuated g/C Ratio	0.30	0.31	0.31				0.11	0.41		0.12	0.42	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	533	568	470				194	1437		216	1463	
v/s Ratio Prot	0.08	0.00					c0.08	0.17		0.02	c0.28	
v/s Ratio Perm			c0.27									
v/c Ratio	0.27	0.01	0.89				0.72	0.40		0.17	0.66	
Uniform Delay, d1	31.9	29.1	39.8				51.6	24.9		47.2	27.8	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.0	18.9				11.9	0.8		0.4	2.3	
Delay (s)	32.2	29.1	58.7				63.5	25.7		47.5	30.1	
Level of Service	C	C	E				E	C		D	C	
Approach Delay (s)		53.7			0.0			33.0			30.7	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

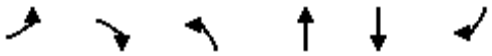
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	145	5	653	139	583	36	966
v/c Ratio	0.27	0.01	0.93	0.71	0.38	0.12	0.66
Control Delay	31.0	24.0	38.8	72.0	29.6	41.5	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	24.0	38.8	72.0	29.6	41.5	32.3
Queue Length 50th (ft)	66	2	209	84	155	18	258
Queue Length 95th (ft)	101	9	#344	#154	212	43	348
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	534	703	791	203	1702	288	1467
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.01	0.83	0.68	0.34	0.13	0.66

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



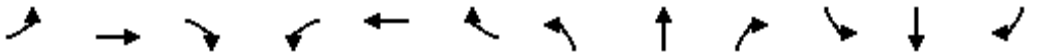
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	330	208	381	928	510	867
Future Volume (veh/h)	330	208	381	928	510	867
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	347	50	401	977	537	566
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	386	343	490	3341	1105	866
Arrive On Green	0.22	0.22	0.55	1.00	0.31	0.31
Sat Flow, veh/h	1781	1585	1781	5274	3647	2785
Grp Volume(v), veh/h	347	50	401	977	537	566
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1393
Q Serve(g_s), s	19.0	2.6	18.4	0.0	12.3	8.9
Cycle Q Clear(g_c), s	19.0	2.6	18.4	0.0	12.3	8.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	386	343	490	3341	1105	866
V/C Ratio(X)	0.90	0.15	0.82	0.29	0.49	0.65
Avail Cap(c_a), veh/h	499	444	490	3341	1105	866
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	38.1	31.7	20.4	0.0	28.0	7.6
Incr Delay (d2), s/veh	16.1	0.2	9.7	0.2	1.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.9	4.5	10.2	0.1	9.1	16.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	31.9	30.1	0.2	29.5	11.4
LnGrp LOS	D	C	C	A	C	B
Approach Vol, veh/h	397			1378	1103	
Approach Delay, s/veh	51.4			8.9	20.2	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		72.6		27.4	34.7	37.9
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 60		28.0	* 21	31.1
Max Q Clear Time (g_c+I1), s		2.0		21.0	20.4	14.3
Green Ext Time (p_c), s		8.2		0.7	0.1	5.4

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

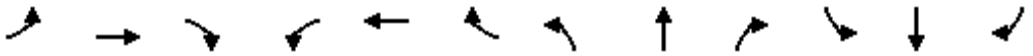
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	54	43	56	48	159	24	1040	69	126	545	41
Future Volume (veh/h)	115	54	43	56	48	159	24	1040	69	126	545	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	56	44	58	49	164	25	1072	71	130	562	42
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	86	56	238	186	406	71	2401	159	269	1840	137
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.50	0.50	0.08	0.55	0.55
Sat Flow, veh/h	511	320	209	677	689	1507	1781	4826	319	3456	3343	249
Grp Volume(v), veh/h	219	0	0	107	0	164	25	756	387	130	298	306
Grp Sat Flow(s),veh/h/ln	1040	0	0	1367	0	1507	1781	1702	1742	1728	1777	1816
Q Serve(g_s), s	14.9	0.0	0.0	0.0	0.0	8.9	1.4	14.3	14.4	3.6	9.1	9.1
Cycle Q Clear(g_c), s	20.7	0.0	0.0	5.8	0.0	8.9	1.4	14.3	14.4	3.6	9.1	9.1
Prop In Lane	0.54		0.20	0.54		1.00	1.00		0.18	1.00		0.14
Lane Grp Cap(c), veh/h	336	0	0	424	0	406	71	1693	866	269	978	999
V/C Ratio(X)	0.65	0.00	0.00	0.25	0.00	0.40	0.35	0.45	0.45	0.48	0.30	0.31
Avail Cap(c_a), veh/h	450	0	0	566	0	550	187	1693	866	415	978	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.80	0.80	0.80	0.91	0.91	0.91
Uniform Delay (d), s/veh	35.4	0.0	0.0	28.6	0.0	29.9	46.7	16.2	16.2	44.2	12.2	12.2
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.3	0.0	0.6	0.9	0.7	1.3	0.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	0.0	0.0	3.7	0.0	6.0	1.1	8.8	9.2	2.8	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	0.0	28.9	0.0	30.6	47.6	16.9	17.6	44.6	12.9	12.9
LnGrp LOS	D	A	A	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		219			271			1168			734	
Approach Delay, s/veh		37.6			29.9			17.8			18.5	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	54.7		32.5	7.5	60.0		32.5				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	12.0	36.0		36.5	10.5	39.0		36.5				
Max Q Clear Time (g_c+I1), s	5.6	16.4		22.7	3.4	11.1		10.9				
Green Ext Time (p_c), s	0.1	9.8		1.1	0.0	5.3		1.2				

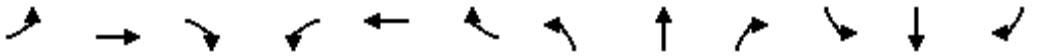
Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	329	124	75	140	111	84	750	107	85	495	69
Future Volume (veh/h)	278	329	124	75	140	111	84	750	107	85	495	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.97	0.99		0.94	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	346	131	79	147	117	88	789	113	89	521	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	786	639	348	395	315	357	1605	589	261	1402	195
Arrive On Green	0.42	0.46	0.42	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1097	1870	1519	906	940	748	812	3554	1305	613	3104	433
Grp Volume(v), veh/h	293	346	131	79	0	264	88	789	113	89	297	297
Grp Sat Flow(s),veh/h/ln	1097	1870	1519	906	0	1688	812	1777	1305	613	1777	1760
Q Serve(g_s), s	22.5	11.2	4.9	6.1	0.0	9.7	7.2	14.1	4.7	10.8	9.9	10.0
Cycle Q Clear(g_c), s	32.2	11.2	4.9	17.3	0.0	9.7	17.2	14.1	4.7	24.9	9.9	10.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	423	786	639	348	0	710	357	1605	589	261	803	795
V/C Ratio(X)	0.69	0.44	0.21	0.23	0.00	0.37	0.25	0.49	0.19	0.34	0.37	0.37
Avail Cap(c_a), veh/h	468	862	700	385	0	778	357	1605	589	261	803	795
HCM Platoon Ratio	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	29.0	17.0	16.5	24.5	0.0	17.9	22.0	17.4	14.8	26.1	16.2	16.3
Incr Delay (d2), s/veh	4.3	0.6	0.2	0.6	0.0	0.6	1.6	1.1	0.7	3.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	7.8	3.0	2.4	0.0	6.9	2.7	9.5	2.6	3.2	7.3	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	17.6	16.8	25.0	0.0	18.5	23.6	18.5	15.5	29.6	17.5	17.6
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		770			343			990			683	
Approach Delay, s/veh		23.4			20.0			18.6			19.1	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.7		43.3		46.7		43.3				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		37.0		41.5		37.0		41.5				
Max Q Clear Time (g_c+I1), s		19.2		34.2		26.9		19.3				
Green Ext Time (p_c), s		8.8		3.4		4.4		3.4				

Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1507	459	648	679	10	799	10	391	9	25	30
Future Volume (veh/h)	46	1507	459	648	679	10	799	10	391	9	25	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1638	401	661	693	10	822	0	75	9	26	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	2278	858	553	1960	28	862	0	383	13	38	46
Arrive On Green	0.09	0.30	0.30	0.16	0.38	0.38	0.24	0.00	0.24	0.07	0.07	0.07
Sat Flow, veh/h	1781	7481	1557	3456	5169	74	3563	0	1585	203	587	700
Grp Volume(v), veh/h	47	1638	401	661	456	247	822	0	75	66	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1728	1702	1839	1781	0	1585	1491	0	0
Q Serve(g_s), s	2.6	20.5	16.5	16.8	10.1	10.1	23.9	0.0	4.0	4.5	0.0	0.0
Cycle Q Clear(g_c), s	2.6	20.5	16.5	16.8	10.1	10.1	23.9	0.0	4.0	4.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.14		0.47
Lane Grp Cap(c), veh/h	152	2278	858	553	1291	697	862	0	383	97	0	0
V/C Ratio(X)	0.31	0.72	0.47	1.20	0.35	0.35	0.95	0.00	0.20	0.68	0.00	0.00
Avail Cap(c_a), veh/h	204	2278	858	553	1291	697	862	0	383	200	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.1	32.5	14.6	44.1	23.4	23.4	39.2	0.0	31.7	48.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	2.0	1.8	104.7	0.8	1.4	20.3	0.0	0.2	8.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	14.2	14.7	23.1	7.2	8.0	18.4	0.0	2.7	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	34.5	16.4	148.8	24.1	24.8	59.5	0.0	31.9	56.1	0.0	0.0
LnGrp LOS	D	C	B	F	C	C	E	A	C	E	A	A
Approach Vol, veh/h		2086			1364			897			66	
Approach Delay, s/veh		31.3			84.7			57.2			56.1	
Approach LOS		C			F			E			E	

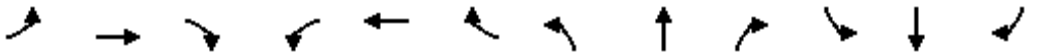
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.1	24.0	38.8		11.1	16.2	46.6				
Change Period (Y+Rc), s		5.7	7.2	* 6.8		4.3	7.2	* 6.8				
Max Green Setting (Gmax), s		25.4	16.8	* 25		14.1	12.0	* 30				
Max Q Clear Time (g_c+I1), s		25.9	18.8	22.5		6.5	4.6	12.1				
Green Ext Time (p_c), s		0.0	0.0	1.9		0.1	0.0	3.8				

Intersection Summary		
HCM 6th Ctrl Delay		53.4
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	522	230	219	1069	145	160	329	202	195	349	105
Future Volume (veh/h)	90	522	230	219	1069	145	160	329	202	195	349	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	544	240	228	1114	151	167	343	210	203	364	109
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1599	675	321	1599	595	253	804	652	337	526	157
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	438	3554	1500	688	3554	1323	919	1870	1517	853	1223	366
Grp Volume(v), veh/h	94	544	240	228	1114	151	167	343	210	203	0	473
Grp Sat Flow(s),veh/h/ln	438	1777	1500	688	1777	1323	919	1870	1517	853	0	1589
Q Serve(g_s), s	17.9	8.9	9.4	28.9	22.6	6.4	16.2	11.5	8.2	19.6	0.0	21.7
Cycle Q Clear(g_c), s	40.5	8.9	9.4	37.9	22.6	6.4	38.0	11.5	8.2	31.2	0.0	21.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	167	1599	675	321	1599	595	253	804	652	337	0	683
V/C Ratio(X)	0.56	0.34	0.36	0.71	0.70	0.25	0.66	0.43	0.32	0.60	0.00	0.69
Avail Cap(c_a), veh/h	167	1599	675	321	1599	595	253	804	652	337	0	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	16.1	16.2	28.4	19.8	15.4	36.2	17.9	17.0	28.8	0.0	20.8
Incr Delay (d2), s/veh	13.0	0.6	1.5	12.5	2.5	1.0	12.7	1.7	1.3	7.7	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	6.2	5.8	9.4	13.9	3.5	7.8	8.7	5.3	8.0	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	16.7	17.7	40.9	22.4	16.4	49.0	19.6	18.3	36.5	0.0	26.5
LnGrp LOS	D	B	B	D	C	B	D	B	B	D	A	C
Approach Vol, veh/h		878			1493			720			676	
Approach Delay, s/veh		20.5			24.6			26.0			29.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.0		46.0		44.0		46.0				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 39		* 41		* 39		* 41				
Max Q Clear Time (g_c+I1), s		40.0		42.5		33.2		39.9				
Green Ext Time (p_c), s		0.0		0.0		2.0		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			24.8									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	4	24	3	60	6	614	70	105	682	8
Future Vol, veh/h	18	0	4	24	3	60	6	614	70	105	682	8
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	0	4	27	3	67	7	682	78	117	758	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1361	1782	393	1354	1747	384	774	0	0	764	0	0
Stage 1	1004	1004	-	739	739	-	-	-	-	-	-	-
Stage 2	357	778	-	615	1008	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*165	98	606	167	104	*880	837	-	-	1068	-	-
Stage 1	*259	318	-	622	587	-	-	-	-	-	-	-
Stage 2	*830	559	-	445	316	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*124	77	601	139	82	*877	831	-	-	1064	-	-
Mov Cap-2 Maneuver	*124	77	-	139	82	-	-	-	-	-	-	-
Stage 1	*253	255	-	610	575	-	-	-	-	-	-	-
Stage 2	*751	548	-	356	253	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.8	21.6	0.2	1.7
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	831	-	-	145	313	1064	-	-
HCM Lane V/C Ratio	0.008	-	-	0.169	0.309	0.11	-	-
HCM Control Delay (s)	9.4	0.1	-	34.8	21.6	8.8	0.6	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	1.3	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

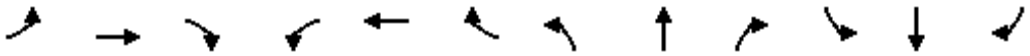
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	6	0	4	11	0	44	6	642	8	22	682	4
Future Vol, veh/h	6	0	4	11	0	44	6	642	8	22	682	4
Conflicting Peds, #/hr	0	0	1	1	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	4	12	0	49	7	713	9	24	758	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1189	1560	392	1166	1558	367	772	0	0	728	0	0
Stage 1	818	818	-	738	738	-	-	-	-	-	-	-
Stage 2	371	742	-	428	820	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*267	154	607	280	155	*841	839	-	-	1183	-	-
Stage 1	*336	388	-	707	638	-	-	-	-	-	-	-
Stage 2	*793	635	-	575	387	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*240	144	601	266	145	*836	831	-	-	1176	-	-
Mov Cap-2 Maneuver	*240	144	-	266	145	-	-	-	-	-	-	-
Stage 1	*328	371	-	693	626	-	-	-	-	-	-	-
Stage 2	*736	623	-	550	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	11.9	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	831	-	-	316	585	1176	-	-
HCM Lane V/C Ratio	0.008	-	-	0.035	0.104	0.021	-	-
HCM Control Delay (s)	9.4	0.1	-	16.8	11.9	8.1	0.1	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

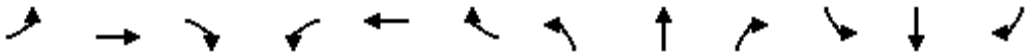
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	0	69	7	0	17	31	634	5	21	631	5
Future Volume (veh/h)	30	0	69	7	0	17	31	634	5	21	631	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	0	78	8	0	19	35	712	6	24	709	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	17	121	95	22	130	120	2292	19	91	2369	20
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	264	126	896	245	160	960	92	3078	26	54	3181	27
Grp Volume(v), veh/h	112	0	0	27	0	0	409	0	344	406	0	333
Grp Sat Flow(s),veh/h/ln	1287	0	0	1365	0	0	1728	0	1467	1786	0	1476
Q Serve(g_s), s	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	5.6
Cycle Q Clear(g_c), s	6.1	0.0	0.0	1.3	0.0	0.0	5.4	0.0	5.9	5.3	0.0	5.6
Prop In Lane	0.30		0.70	0.30		0.70	0.09		0.02	0.06		0.02
Lane Grp Cap(c), veh/h	237	0	0	247	0	0	1339	0	1092	1381	0	1099
V/C Ratio(X)	0.47	0.00	0.00	0.11	0.00	0.00	0.31	0.00	0.32	0.29	0.00	0.30
Avail Cap(c_a), veh/h	576	0	0	585	0	0	1339	0	1092	1381	0	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	0.0	0.0	28.6	0.0	0.0	3.1	0.0	3.2	3.1	0.0	3.2
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.8	0.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	0.0	0.0	0.8	0.0	0.0	2.5	0.0	2.2	2.4	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0	28.8	0.0	0.0	3.7	0.0	4.0	3.7	0.0	3.9
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		112			27			753			739	
Approach Delay, s/veh		32.1			28.8			3.8			3.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.4		14.6		60.4		14.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		7.9		8.1		7.6		3.3				
Green Ext Time (p_c), s		7.1		0.6		6.9		0.1				

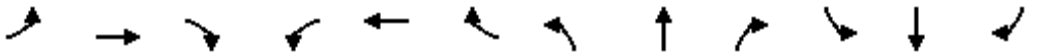
Intersection Summary												
HCM 6th Ctrl Delay			6.1									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	532	127	96	454	246	125	260	123	241	325	98
Future Volume (veh/h)	171	532	127	96	454	246	125	260	123	241	325	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.99		0.93	0.95		0.82	0.92		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	619	148	112	528	129	145	302	143	280	378	114
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	823	642	209	823	650	438	882	391	376	1123	332
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.43	0.43	0.43	0.85	0.85	0.85
Sat Flow, veh/h	762	1870	1458	691	1870	1477	862	2067	917	873	2632	777
Grp Volume(v), veh/h	199	619	148	112	528	129	145	257	188	280	253	239
Grp Sat Flow(s),veh/h/ln	762	1870	1458	691	1870	1477	862	1777	1207	873	1777	1632
Q Serve(g_s), s	16.5	20.8	4.7	12.1	16.5	4.0	9.2	7.3	7.9	24.1	2.2	2.3
Cycle Q Clear(g_c), s	33.0	20.8	4.7	32.9	16.5	4.0	11.4	7.3	7.9	32.0	2.2	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		0.48
Lane Grp Cap(c), veh/h	263	823	642	209	823	650	438	758	515	376	758	696
V/C Ratio(X)	0.76	0.75	0.23	0.54	0.64	0.20	0.33	0.34	0.37	0.74	0.33	0.34
Avail Cap(c_a), veh/h	263	823	642	209	823	650	438	758	515	376	758	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	17.6	13.1	31.4	16.4	12.9	16.4	14.4	14.6	9.5	3.3	3.3
Incr Delay (d2), s/veh	18.1	6.3	0.8	8.7	3.5	0.6	0.8	0.5	0.7	8.8	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.5	14.4	2.8	4.4	11.3	2.4	3.1	4.9	3.7	3.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	23.9	13.9	40.1	19.9	13.5	17.2	14.9	15.3	18.3	3.8	3.8
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	A	A
Approach Vol, veh/h		966			769			590			772	
Approach Delay, s/veh		27.5			21.7			15.6			9.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		38.0		37.0		38.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		13.4		35.0		34.0		34.9				
Green Ext Time (p_c), s		5.4		0.0		0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	552	55	98	539	5	69	0	72	4	1	11
Future Volume (veh/h)	31	552	55	98	539	5	69	0	72	4	1	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.98		0.87	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	634	63	113	620	6	79	0	83	5	1	13
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	528	1367	917	515	1201	12	305	0	250	92	37	170
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.16	0.00	0.16	0.16	0.16	0.16
Sat Flow, veh/h	790	1870	1255	734	1643	16	1373	0	1527	255	225	1039
Grp Volume(v), veh/h	36	634	63	113	0	626	79	0	83	19	0	0
Grp Sat Flow(s),veh/h/ln	790	1870	1255	734	0	1659	1373	0	1527	1519	0	0
Q Serve(g_s), s	1.9	12.4	1.3	6.7	0.0	14.7	3.5	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	16.5	12.4	1.3	19.1	0.0	14.7	4.4	0.0	4.3	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.26		0.68
Lane Grp Cap(c), veh/h	528	1367	917	515	0	1212	305	0	250	299	0	0
V/C Ratio(X)	0.07	0.46	0.07	0.22	0.00	0.52	0.26	0.00	0.33	0.06	0.00	0.00
Avail Cap(c_a), veh/h	528	1367	917	515	0	1212	556	0	534	572	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.64	0.00	0.64	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.8	4.9	3.4	8.8	0.0	5.2	33.2	0.0	33.3	31.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.1	0.6	0.0	1.0	0.4	0.0	0.8	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	6.1	0.5	1.9	0.0	6.6	2.8	0.0	3.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	5.6	3.5	9.4	0.0	6.2	33.7	0.0	34.1	31.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		733			739			162			19	
Approach Delay, s/veh		5.6			6.7			33.9			31.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		70.8		19.2		70.8				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.5		49.0		31.5		49.0				
Max Q Clear Time (g_c+I1), s		6.4		18.5		2.9		21.1				
Green Ext Time (p_c), s		0.7		2.9		0.1		8.9				

Intersection Summary												
HCM 6th Ctrl Delay			9.2									
HCM 6th LOS			A									

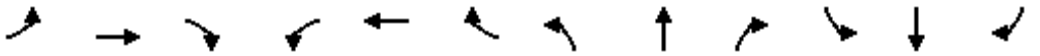
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	3	0	9	102	106	0	1	1	77	0	0
Future Vol, veh/h	0	3	0	9	102	106	0	1	1	77	0	0
Conflicting Peds, #/hr	13	0	31	31	0	13	7	0	0	0	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	0	11	121	126	0	1	1	92	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	260	0	0	35	0	0	248	317	35	224	254	204
Stage 1	-	-	-	-	-	-	35	35	-	219	219	-
Stage 2	-	-	-	-	-	-	213	282	-	5	35	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1304	-	-	1576	-	-	706	599	1038	732	650	837
Stage 1	-	-	-	-	-	-	981	866	-	783	722	-
Stage 2	-	-	-	-	-	-	789	678	-	1017	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1288	-	-	1529	-	-	676	570	1007	717	618	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	676	570	-	717	618	-
Stage 1	-	-	-	-	-	-	952	840	-	774	708	-
Stage 2	-	-	-	-	-	-	777	664	-	1014	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	10	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1288	-	-	1529	-	-	717
HCM Lane V/C Ratio	0.003	-	-	-	0.007	-	-	0.128
HCM Control Delay (s)	10	0	-	-	7.4	0	-	10.8
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	8	295	0	0	0	100	503	37	23	964	126
Future Volume (vph)	119	8	295	0	0	0	100	503	37	23	964	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.98				1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557				1770	3495		1770	3459	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1557				1770	3495		1770	3459	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	124	8	307	0	0	0	104	524	39	24	1004	131
RTOR Reduction (vph)	0	0	253	0	0	0	0	3	0	0	5	0
Lane Group Flow (vph)	124	8	54	0	0	0	104	560	0	24	1130	0
Confl. Peds. (#/hr)			2						9			8
Confl. Bikes (#/hr)			1						1			8
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	14.0	14.4	14.4				12.2	74.4		11.9	73.7	
Effective Green, g (s)	14.0	14.4	14.4				12.2	74.4		11.9	73.7	
Actuated g/C Ratio	0.12	0.12	0.12				0.10	0.62		0.10	0.61	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	206	223	186				179	2166		175	2124	
v/s Ratio Prot	c0.07	0.00					c0.06	0.16		0.01	c0.33	
v/s Ratio Perm			0.03									
v/c Ratio	0.60	0.04	0.29				0.58	0.26		0.14	0.53	
Uniform Delay, d1	50.4	46.7	48.1				51.5	10.3		49.4	13.3	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.9	0.1	0.9				4.7	0.3		0.4	1.0	
Delay (s)	55.2	46.7	49.0				56.2	10.6		49.7	14.2	
Level of Service	E	D	D				E	B		D	B	
Approach Delay (s)		50.7			0.0			17.7			15.0	
Approach LOS		D			A			B			B	

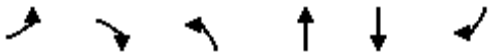
Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	124	8	307	104	563	24	1135
v/c Ratio	0.60	0.04	0.70	0.58	0.25	0.09	0.53
Control Delay	62.0	44.5	15.9	64.9	12.9	39.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	44.5	15.9	64.9	12.9	39.0	14.7
Queue Length 50th (ft)	74	4	11	62	40	14	196
Queue Length 95th (ft)	121	16	81	110	161	29	270
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	219	664	741	182	2287	282	2127
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.01	0.41	0.57	0.25	0.09	0.53

Intersection Summary



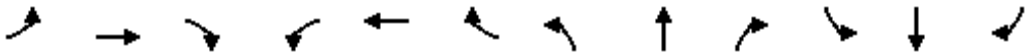
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	569	709	354	653	605	652
Future Volume (veh/h)	569	709	354	653	605	652
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	599	379	373	687	637	458
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	593	528	438	2747	796	602
Arrive On Green	0.33	0.33	0.49	1.00	0.22	0.22
Sat Flow, veh/h	1781	1585	1781	5274	3647	2690
Grp Volume(v), veh/h	599	379	373	687	637	458
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1345
Q Serve(g_s), s	33.3	21.0	18.3	0.0	16.9	6.5
Cycle Q Clear(g_c), s	33.3	21.0	18.3	0.0	16.9	6.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	593	528	438	2747	796	602
V/C Ratio(X)	1.01	0.72	0.85	0.25	0.80	0.76
Avail Cap(c_a), veh/h	593	528	438	2767	931	705
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	33.3	29.2	23.8	0.0	36.7	6.1
Incr Delay (d2), s/veh	39.4	4.7	14.3	0.2	8.3	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	27.8	25.2	11.2	0.1	12.7	14.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.8	33.9	38.1	0.2	45.0	14.9
LnGrp LOS	F	C	D	A	D	B
Approach Vol, veh/h	978			1060	1095	
Approach Delay, s/veh	57.7			13.5	32.4	
Approach LOS	E			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		61.0		39.0	31.8	29.2
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 54		33.3	* 21	26.2
Max Q Clear Time (g_c+I1), s		2.0		35.3	20.3	18.9
Green Ext Time (p_c), s		5.2		0.0	0.1	3.5

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

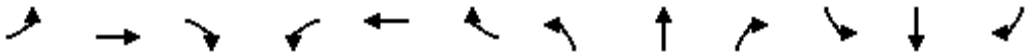
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	11	34	60	21	60	41	906	99	69	1046	198
Future Volume (veh/h)	39	11	34	60	21	60	41	906	99	69	1046	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.96		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	12	36	63	22	23	43	954	104	73	1101	208
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	55	116	307	98	371	99	2436	265	240	1654	311
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.06	0.53	0.53	0.09	0.74	0.74
Sat Flow, veh/h	471	223	472	990	399	1504	1781	4608	501	3456	2968	558
Grp Volume(v), veh/h	89	0	0	85	0	23	43	704	354	73	657	652
Grp Sat Flow(s),veh/h/ln	1166	0	0	1388	0	1504	1781	1702	1705	1728	1777	1750
Q Serve(g_s), s	3.0	0.0	0.0	0.0	0.0	1.2	2.3	12.3	12.4	2.0	18.8	19.1
Cycle Q Clear(g_c), s	8.0	0.0	0.0	5.0	0.0	1.2	2.3	12.3	12.4	2.0	18.8	19.1
Prop In Lane	0.46		0.40	0.74		1.00	1.00		0.29	1.00		0.32
Lane Grp Cap(c), veh/h	340	0	0	405	0	371	99	1800	901	240	990	975
V/C Ratio(X)	0.26	0.00	0.00	0.21	0.00	0.06	0.43	0.39	0.39	0.30	0.66	0.67
Avail Cap(c_a), veh/h	438	0	0	513	0	486	148	1800	901	276	990	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.74	0.74	0.74	0.52	0.52	0.52
Uniform Delay (d), s/veh	31.3	0.0	0.0	30.1	0.0	28.8	45.7	14.0	14.0	43.1	8.2	8.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.3	0.0	0.1	0.8	0.5	1.0	0.1	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	0.0	0.0	3.0	0.0	0.8	1.9	7.6	7.8	1.5	7.7	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	0.0	30.4	0.0	28.9	46.5	14.5	15.0	43.3	10.0	10.1
LnGrp LOS	C	A	A	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		89			108			1101			1382	
Approach Delay, s/veh		31.7			30.1			15.9			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	57.9		30.2	9.1	60.7		30.2				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	8.0	44.2		32.3	8.3	45.4		32.3				
Max Q Clear Time (g_c+I1), s	4.0	14.4		10.0	4.3	21.1		7.0				
Green Ext Time (p_c), s	0.0	11.1		0.4	0.0	13.3		0.5				

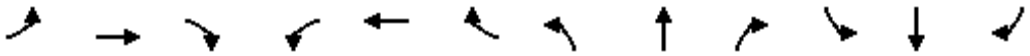
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	160	162	127	274	158	126	623	43	111	679	349
Future Volume (veh/h)	260	160	162	127	274	158	126	623	43	111	679	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.95	0.99		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	277	170	172	135	291	168	134	663	46	118	722	371
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	790	655	484	462	267	175	1599	596	318	1002	514
Arrive On Green	0.71	0.71	0.71	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	930	1870	1550	1033	1095	632	515	3554	1325	734	2226	1142
Grp Volume(v), veh/h	277	170	172	135	0	459	134	663	46	118	576	517
Grp Sat Flow(s),veh/h/ln	930	1870	1550	1033	0	1728	515	1777	1325	734	1777	1591
Q Serve(g_s), s	19.2	2.8	3.6	8.2	0.0	18.8	16.7	11.4	1.8	11.7	23.8	23.8
Cycle Q Clear(g_c), s	38.0	2.8	3.6	11.1	0.0	18.8	40.5	11.4	1.8	23.0	23.8	23.8
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	278	790	655	484	0	729	175	1599	596	318	800	716
V/C Ratio(X)	1.00	0.22	0.26	0.28	0.00	0.63	0.76	0.41	0.08	0.37	0.72	0.72
Avail Cap(c_a), veh/h	278	790	655	484	0	729	175	1599	596	318	800	716
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	25.4	8.1	8.2	19.2	0.0	20.5	39.1	16.7	14.1	24.5	20.1	20.2
Incr Delay (d2), s/veh	49.5	0.2	0.3	0.5	0.0	2.2	26.6	0.8	0.3	2.8	4.8	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.0	1.9	2.0	3.6	0.0	12.4	7.6	8.0	1.0	3.9	14.9	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	8.3	8.5	19.8	0.0	22.7	65.7	17.5	14.4	27.3	24.9	25.5
LnGrp LOS	E	A	A	B	A	C	E	B	B	C	C	C
Approach Vol, veh/h		619			594			843			1211	
Approach Delay, s/veh		38.1			22.0			25.0			25.4	
Approach LOS		D			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.5		43.5		46.5		43.5				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		40.5		38.0		40.5		38.0				
Max Q Clear Time (g_c+I1), s		42.5		40.0		25.8		20.8				
Green Ext Time (p_c), s		0.0		0.0		9.7		5.4				

Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	916	419	788	1126	12	665	5	170	19	86	56
Future Volume (veh/h)	29	916	419	788	1126	12	665	5	170	19	86	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	892	500	838	1198	13	711	0	27	20	91	60
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	1257	1298	787	1991	22	672	0	299	23	106	70
Arrive On Green	0.07	0.22	0.22	0.23	0.38	0.38	0.19	0.00	0.19	0.13	0.13	0.13
Sat Flow, veh/h	1781	5611	3125	3456	5191	56	3563	0	1585	178	810	534
Grp Volume(v), veh/h	31	892	500	838	786	425	711	0	27	171	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1562	1728	1702	1843	1781	0	1585	1522	0	0
Q Serve(g_s), s	1.7	15.4	11.7	23.9	19.4	19.4	19.8	0.0	1.5	11.5	0.0	0.0
Cycle Q Clear(g_c), s	1.7	15.4	11.7	23.9	19.4	19.4	19.8	0.0	1.5	11.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.12		0.35
Lane Grp Cap(c), veh/h	121	1257	1298	787	1306	707	672	0	299	200	0	0
V/C Ratio(X)	0.26	0.71	0.39	1.07	0.60	0.60	1.06	0.00	0.09	0.86	0.00	0.00
Avail Cap(c_a), veh/h	204	1257	1298	787	1306	707	672	0	299	261	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.4	37.6	21.6	40.5	25.9	25.9	42.6	0.0	35.2	44.6	0.0	0.0
Incr Delay (d2), s/veh	1.1	3.4	0.9	50.9	2.1	3.8	51.2	0.0	0.1	19.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	11.6	9.9	22.5	12.5	13.7	19.8	0.0	1.0	9.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	41.0	22.4	91.5	28.0	29.7	93.8	0.0	35.3	63.7	0.0	0.0
LnGrp LOS	D	D	C	F	C	C	F	A	D	E	A	A
Approach Vol, veh/h		1423			2049			738			171	
Approach Delay, s/veh		34.6			54.3			91.6			63.7	
Approach LOS		C			D			F			E	

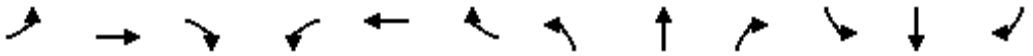
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.5	31.1	30.3		18.1	14.3	47.1				
Change Period (Y+Rc), s		5.7	7.2	* 6.8		4.3	7.2	* 6.8				
Max Green Setting (Gmax), s		19.8	23.9	* 19		18.0	12.0	* 31				
Max Q Clear Time (g_c+I1), s		21.8	25.9	17.4		13.5	3.7	21.4				
Green Ext Time (p_c), s		0.0	0.0	1.3		0.3	0.0	5.0				

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1368	150	132	781	280	163	338	422	188	299	116
Future Volume (veh/h)	107	1368	150	132	781	280	163	338	422	188	299	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.87	1.00	1.00	0.98	1.00	1.00	0.89
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1396	153	135	797	286	166	345	431	192	305	118
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1548	646	103	1548	567	311	831	673	301	504	195
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	520	3554	1483	334	3554	1303	961	1870	1514	693	1134	439
Grp Volume(v), veh/h	109	1396	153	135	797	286	166	345	431	192	0	423
Grp Sat Flow(s),veh/h/ln	520	1777	1483	334	1777	1303	961	1870	1514	693	0	1572
Q Serve(g_s), s	17.4	32.9	5.8	6.3	14.7	14.3	14.3	11.3	19.9	23.5	0.0	18.4
Cycle Q Clear(g_c), s	32.1	32.9	5.8	39.2	14.7	14.3	32.7	11.3	19.9	34.8	0.0	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	222	1548	646	103	1548	567	311	831	673	301	0	699
V/C Ratio(X)	0.49	0.90	0.24	1.30	0.51	0.50	0.53	0.42	0.64	0.64	0.00	0.61
Avail Cap(c_a), veh/h	222	1548	646	103	1548	567	311	831	673	301	0	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	23.6	16.0	44.3	18.5	18.4	31.4	17.0	19.4	28.9	0.0	19.0
Incr Delay (d2), s/veh	7.6	8.9	0.9	190.6	1.2	3.2	6.4	1.5	4.6	9.9	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	20.5	3.6	13.9	9.7	7.9	6.7	8.5	11.8	8.0	0.0	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	32.5	16.8	234.9	19.7	21.5	37.9	18.6	24.1	38.8	0.0	22.9
LnGrp LOS	D	C	B	F	B	C	D	B	C	D	A	C
Approach Vol, veh/h		1658			1218			942			615	
Approach Delay, s/veh		31.4			44.0			24.5			27.8	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.3		44.7		45.3		44.7				
Change Period (Y+Rc), s		* 5.3		* 5.5		* 5.3		* 5.5				
Max Green Setting (Gmax), s		* 40		* 39		* 40		* 39				
Max Q Clear Time (g_c+I1), s		34.7		34.9		36.8		41.2				
Green Ext Time (p_c), s		2.2		3.4		1.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			32.9									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1	2	49	0	154	2	817	40	66	466	17
Future Vol, veh/h	4	1	2	49	0	154	2	817	40	66	466	17
Conflicting Peds, #/hr	0	0	2	2	0	0	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	2	51	0	159	2	842	41	68	480	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1057	1523	258	1250	1512	446	505	0	0	887	0	0
Stage 1	632	632	-	871	871	-	-	-	-	-	-	-
Stage 2	425	891	-	379	641	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*487	194	741	*311	*198	*763	1056	-	-	1141	-	-
Stage 1	*435	472	-	*719	*631	-	-	-	-	-	-	-
Stage 2	*719	627	-	*615	*468	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*357	175	735	*287	*179	*760	1049	-	-	1137	-	-
Mov Cap-2 Maneuver	*357	175	-	*287	*179	-	-	-	-	-	-	-
Stage 1	*430	430	-	*714	*626	-	-	-	-	-	-	-
Stage 2	*567	622	-	*560	*426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	15.7	0	1.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	356	544	1137	-	-
HCM Lane V/C Ratio	0.002	-	-	0.02	0.385	0.06	-	-
HCM Control Delay (s)	8.4	0	-	15.3	15.7	8.4	0.3	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.8	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

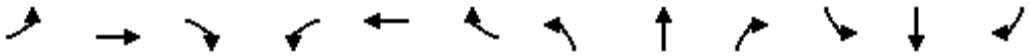
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1	1	7	0	24	2	824	13	38	467	10
Future Vol, veh/h	9	1	1	7	0	24	2	824	13	38	467	10
Conflicting Peds, #/hr	0	0	4	4	0	0	9	0	5	5	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	1	7	0	25	2	849	13	39	481	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1002	1444	259	1188	1443	436	500	0	0	867	0	0
Stage 1	573	573	-	865	865	-	-	-	-	-	-	-
Stage 2	429	871	-	323	578	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*553	*225	740	*359	*226	*763	1060	-	-	*1141	-	-
Stage 1	*472	*502	-	*719	*631	-	-	-	-	-	-	-
Stage 2	*719	*631	-	*663	*499	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*510	*211	731	*341	*212	*759	1051	-	-	*1136	-	-
Mov Cap-2 Maneuver	*510	*211	-	*341	*212	-	-	-	-	-	-	-
Stage 1	*466	*474	-	*713	*625	-	-	-	-	-	-	-
Stage 2	*693	*625	-	*627	*471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	11.4	0	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1051	-	-	463	594	* 1136	-	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.054	0.034	-	-
HCM Control Delay (s)	8.4	0	-	13	11.4	8.3	0.2	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

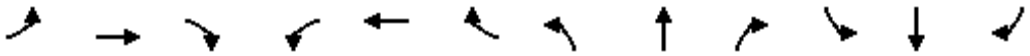
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	24	13	0	13	24	814	5	13	452	8
Future Volume (veh/h)	16	0	24	13	0	13	24	814	5	13	452	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.98	0.99		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.87	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	25	13	0	13	25	839	5	13	466	8
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	17	69	112	17	57	88	2554	15	82	2510	43
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	316	189	789	453	196	650	47	3224	19	41	3169	54
Grp Volume(v), veh/h	41	0	0	26	0	0	482	0	387	269	0	218
Grp Sat Flow(s),veh/h/ln	1294	0	0	1299	0	0	1821	0	1469	1794	0	1469
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	2.7
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.3	0.0	0.0	5.4	0.0	5.6	2.6	0.0	2.7
Prop In Lane	0.39		0.61	0.50		0.50	0.05		0.01	0.05		0.04
Lane Grp Cap(c), veh/h	180	0	0	186	0	0	1493	0	1163	1472	0	1164
V/C Ratio(X)	0.23	0.00	0.00	0.14	0.00	0.00	0.32	0.00	0.33	0.18	0.00	0.19
Avail Cap(c_a), veh/h	576	0	0	578	0	0	1493	0	1163	1472	0	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	31.8	0.0	0.0	2.2	0.0	2.2	1.9	0.0	1.9
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	0.6	0.0	0.8	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	0.8	0.0	0.0	1.8	0.0	1.6	0.9	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	0.0	32.1	0.0	0.0	2.8	0.0	3.0	2.2	0.0	2.3
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		41			26			869			487	
Approach Delay, s/veh		32.8			32.1			2.8			2.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.9		11.1		63.9		11.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		30.5		35.5		30.5				
Max Q Clear Time (g_c+I1), s		7.6		4.1		4.7		3.3				
Green Ext Time (p_c), s		8.4		0.2		4.3		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			4.0									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	344	442	184	58	268	149	88	317	99	111	263	121
Future Volume (veh/h)	344	442	184	58	268	149	88	317	99	111	263	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.97	0.99		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	465	194	61	282	157	93	334	104	117	277	127
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	985	811	382	985	812	338	835	254	315	804	357
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	943	1870	1539	772	1870	1541	973	2458	747	938	2367	1051
Grp Volume(v), veh/h	362	465	194	61	282	157	93	239	199	117	206	198
Grp Sat Flow(s),veh/h/ln	943	1870	1539	772	1870	1541	973	1777	1428	938	1777	1640
Q Serve(g_s), s	26.0	11.7	5.1	4.1	6.3	4.0	6.0	7.7	8.0	8.2	6.5	6.8
Cycle Q Clear(g_c), s	32.3	11.7	5.1	15.8	6.3	4.0	12.8	7.7	8.0	16.2	6.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.64
Lane Grp Cap(c), veh/h	514	985	811	382	985	812	338	604	485	315	604	558
V/C Ratio(X)	0.70	0.47	0.24	0.16	0.29	0.19	0.27	0.40	0.41	0.37	0.34	0.36
Avail Cap(c_a), veh/h	514	985	811	382	985	812	423	758	609	396	758	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	11.2	9.6	16.2	9.9	9.4	23.4	18.9	19.0	25.2	18.5	18.6
Incr Delay (d2), s/veh	7.9	1.6	0.7	0.9	0.7	0.5	0.7	0.7	1.0	1.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.2	8.1	3.0	1.4	4.4	2.3	2.4	5.5	4.7	3.3	4.6	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	12.8	10.3	17.0	10.6	9.9	24.1	19.6	19.9	26.5	19.1	19.2
LnGrp LOS	C	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		1021			500			531			521	
Approach Delay, s/veh		17.3			11.2			20.5			20.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.5		44.5		30.5		44.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		33.0		32.0		33.0				
Max Q Clear Time (g_c+I1), s		14.8		34.3		18.2		17.8				
Green Ext Time (p_c), s		4.4		0.0		3.8		3.6				

Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	614	23	42	324	1	54	0	108	5	0	2
Future Volume (veh/h)	1	614	23	42	324	1	54	0	108	5	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.99		0.92	0.96		0.94	0.97		0.96
Parking Bus, Adj	1.00	1.00	0.87	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	714	27	49	377	1	63	0	126	6	0	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	695	1326	934	458	1176	3	343	0	275	219	10	53
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.19	0.00	0.19	0.19	0.00	0.19
Sat Flow, veh/h	986	1870	1316	714	1659	4	1419	0	1483	802	53	285
Grp Volume(v), veh/h	1	714	27	49	0	378	63	0	126	8	0	0
Grp Sat Flow(s),veh/h/ln	986	1870	1316	714	0	1663	1419	0	1483	1140	0	0
Q Serve(g_s), s	0.0	16.2	0.5	3.1	0.0	7.7	0.0	0.0	6.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.7	16.2	0.5	19.3	0.0	7.7	2.8	0.0	6.8	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	695	1326	934	458	0	1180	343	0	275	281	0	0
V/C Ratio(X)	0.00	0.54	0.03	0.11	0.00	0.32	0.18	0.00	0.46	0.03	0.00	0.00
Avail Cap(c_a), veh/h	695	1326	934	458	0	1180	559	0	511	486	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.94	0.00	0.94	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.4	6.2	3.9	10.7	0.0	4.9	31.0	0.0	32.6	30.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.1	0.4	0.0	0.7	0.3	0.0	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.9	0.2	0.9	0.0	4.1	2.1	0.0	4.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	7.6	3.9	11.1	0.0	5.6	31.3	0.0	33.8	30.1	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	C	A	C	C	A	A
Approach Vol, veh/h		742			427			189			8	
Approach Delay, s/veh		7.4			6.2			33.0			30.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.2		68.8		21.2		68.8				
Change Period (Y+Rc), s		4.5		5.0		4.5		5.0				
Max Green Setting (Gmax), s		31.0		49.5		31.0		49.5				
Max Q Clear Time (g_c+I1), s		8.8		18.2		4.8		21.3				
Green Ext Time (p_c), s		0.7		3.2		0.0		4.5				

Intersection Summary												
HCM 6th Ctrl Delay			10.7									
HCM 6th LOS			B									

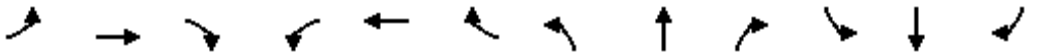
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	64	0	11	5	90	0	3	6	109	1	0
Future Vol, veh/h	1	64	0	11	5	90	0	3	6	109	1	0
Conflicting Peds, #/hr	10	0	16	16	0	10	3	0	4	4	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	82	0	14	6	115	0	4	8	140	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	131	0	0	98	0	0	195	259	102	196	202	77
Stage 1	-	-	-	-	-	-	100	100	-	102	102	-
Stage 2	-	-	-	-	-	-	95	159	-	94	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1454	-	-	1498	-	-	773	650	962	771	699	984
Stage 1	-	-	-	-	-	-	913	815	-	904	811	-
Stage 2	-	-	-	-	-	-	912	766	-	920	815	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1440	-	-	1475	-	-	751	627	943	744	674	972
Mov Cap-2 Maneuver	-	-	-	-	-	-	751	627	-	744	674	-
Stage 1	-	-	-	-	-	-	899	802	-	894	795	-
Stage 2	-	-	-	-	-	-	899	751	-	904	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.8	9.5	11
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	807	1440	-	-	1475	-	-	743
HCM Lane V/C Ratio	0.014	0.001	-	-	0.01	-	-	0.19
HCM Control Delay (s)	9.5	7.5	0	-	7.5	0	-	11
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	5	632	0	0	0	128	506	40	33	828	85
Future Volume (vph)	135	5	632	0	0	0	128	506	40	33	828	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00				1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.97				1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85				1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1541				1770	3493		1770	3477	
Flt Permitted	0.95	1.00	1.00				0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1541				1770	3493		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	5	687	0	0	0	139	550	43	36	900	92
RTOR Reduction (vph)	0	0	225	0	0	0	0	5	0	0	6	0
Lane Group Flow (vph)	147	5	462	0	0	0	139	588	0	36	986	0
Confl. Peds. (#/hr)			10						6			5
Confl. Bikes (#/hr)			3						8			5
Turn Type	Prot	NA	Perm				Prot	NA		Prot	NA	
Protected Phases	7	4					5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	38.7	39.1	39.1				13.2	46.7		14.9	48.0	
Effective Green, g (s)	38.7	39.1	39.1				13.2	46.7		14.9	48.0	
Actuated g/C Ratio	0.32	0.33	0.33				0.11	0.39		0.12	0.40	
Clearance Time (s)	6.1	5.7	5.7				7.2	6.8		6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.2		3.0	2.4	
Lane Grp Cap (vph)	570	607	502				194	1359		219	1390	
v/s Ratio Prot	0.08	0.00					c0.08	0.17		0.02	c0.28	
v/s Ratio Perm			c0.30									
v/c Ratio	0.26	0.01	0.92				0.72	0.43		0.16	0.71	
Uniform Delay, d1	30.0	27.3	38.9				51.6	26.9		47.0	30.2	
Progression Factor	1.00	1.00	1.00				1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.0	21.9				11.9	1.0		0.4	3.1	
Delay (s)	30.3	27.3	60.9				63.5	27.9		47.3	33.2	
Level of Service	C	C	E				E	C		D	C	
Approach Delay (s)		55.3			0.0			34.7			33.7	
Approach LOS		E			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	41.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.6
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

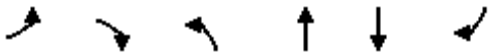
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	147	5	687	139	593	36	992
v/c Ratio	0.26	0.01	0.94	0.71	0.41	0.12	0.71
Control Delay	29.6	23.6	42.0	72.0	31.1	41.5	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	23.6	42.0	72.0	31.1	41.5	35.0
Queue Length 50th (ft)	63	2	230	84	172	18	284
Queue Length 95th (ft)	102	9	#424	#154	215	43	361
Internal Link Dist (ft)		498			342		273
Turn Bay Length (ft)	150			195		80	
Base Capacity (vph)	570	703	790	203	1655	291	1397
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.87	0.68	0.36	0.12	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	330	227	400	963	531	898
Future Volume (veh/h)	330	227	400	963	531	898
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	347	70	421	1014	559	598
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	387	344	490	3339	1105	866
Arrive On Green	0.22	0.22	0.55	1.00	0.31	0.31
Sat Flow, veh/h	1781	1585	1781	5274	3647	2785
Grp Volume(v), veh/h	347	70	421	1014	559	598
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1777	1393
Q Serve(g_s), s	18.9	3.6	20.2	0.0	12.9	9.5
Cycle Q Clear(g_c), s	18.9	3.6	20.2	0.0	12.9	9.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	387	344	490	3339	1105	866
V/C Ratio(X)	0.90	0.20	0.86	0.30	0.51	0.69
Avail Cap(c_a), veh/h	499	444	490	3339	1105	866
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.1	20.9	0.0	28.2	7.7
Incr Delay (d2), s/veh	15.9	0.3	13.1	0.2	1.7	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.9	6.3	11.1	0.1	9.4	17.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.9	32.4	33.9	0.2	29.8	12.2
LnGrp LOS	D	C	C	A	C	B
Approach Vol, veh/h	417			1435	1157	
Approach Delay, s/veh	50.3			10.1	20.7	
Approach LOS	D			B	C	

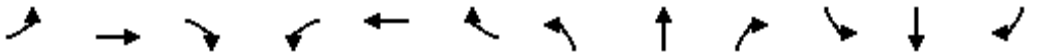
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		72.6		27.4	34.7	37.9
Change Period (Y+Rc), s		* 7.2		5.7	* 7.2	6.8
Max Green Setting (Gmax), s		* 60		28.0	* 21	31.1
Max Q Clear Time (g_c+I1), s		2.0		20.9	22.2	14.9
Green Ext Time (p_c), s		8.6		0.8	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

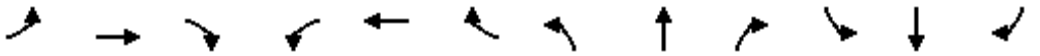
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	28	57	81	23	159	31	1073	95	126	566	60
Future Volume (veh/h)	135	28	57	81	23	159	31	1073	95	126	566	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.89	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	29	59	84	24	164	32	1106	98	130	584	62
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	47	70	333	88	422	84	2294	203	269	1721	182
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.05	0.49	0.49	0.08	0.53	0.53
Sat Flow, veh/h	548	167	251	961	313	1509	1781	4708	417	3456	3230	342
Grp Volume(v), veh/h	227	0	0	108	0	164	32	799	405	130	321	325
Grp Sat Flow(s),veh/h/ln	966	0	0	1273	0	1509	1781	1702	1720	1728	1777	1795
Q Serve(g_s), s	16.8	0.0	0.0	0.0	0.0	8.8	1.7	15.7	15.8	3.6	10.3	10.3
Cycle Q Clear(g_c), s	23.4	0.0	0.0	6.6	0.0	8.8	1.7	15.7	15.8	3.6	10.3	10.3
Prop In Lane	0.61		0.26	0.78		1.00	1.00		0.24	1.00		0.19
Lane Grp Cap(c), veh/h	328	0	0	420	0	422	84	1659	838	269	947	957
V/C Ratio(X)	0.69	0.00	0.00	0.26	0.00	0.39	0.38	0.48	0.48	0.48	0.34	0.34
Avail Cap(c_a), veh/h	428	0	0	538	0	551	187	1659	838	415	947	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.73	0.73	0.73	0.90	0.90	0.90
Uniform Delay (d), s/veh	36.2	0.0	0.0	28.2	0.0	29.1	46.2	17.2	17.2	44.2	13.3	13.3
Incr Delay (d2), s/veh	3.2	0.0	0.0	0.3	0.0	0.6	0.8	0.7	1.5	0.4	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.4	0.0	0.0	3.7	0.0	5.9	1.4	9.4	9.7	2.8	7.2	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	0.0	0.0	28.5	0.0	29.7	47.0	17.9	18.6	44.6	14.2	14.2
LnGrp LOS	D	A	A	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		227			272			1236			776	
Approach Delay, s/veh		39.4			29.2			18.9			19.3	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	53.7		33.5	8.2	58.3		33.5				
Change Period (Y+Rc), s	5.0	5.0		5.5	3.5	5.0		5.5				
Max Green Setting (Gmax), s	12.0	36.0		36.5	10.5	39.0		36.5				
Max Q Clear Time (g_c+I1), s	5.6	17.8		25.4	3.7	12.3		10.8				
Green Ext Time (p_c), s	0.1	9.9		1.1	0.0	5.7		1.2				

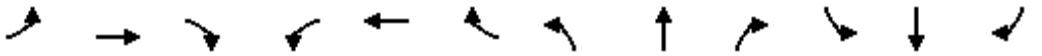
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	331	143	75	148	112	91	754	107	94	489	123
Future Volume (veh/h)	339	331	143	75	148	112	91	754	107	94	489	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.97	0.99		0.93	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	357	348	151	79	156	118	96	794	113	99	515	129
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	461	851	692	374	439	332	300	1483	543	232	1159	288
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1089	1870	1522	889	964	729	775	3554	1300	610	2777	691
Grp Volume(v), veh/h	357	348	151	79	0	274	96	794	113	99	328	316
Grp Sat Flow(s),veh/h/ln	1089	1870	1522	889	0	1694	775	1777	1300	610	1777	1691
Q Serve(g_s), s	28.6	11.2	5.4	5.9	0.0	9.5	9.1	15.1	5.0	13.1	11.9	12.0
Cycle Q Clear(g_c), s	38.0	11.2	5.4	17.1	0.0	9.5	21.1	15.1	5.0	28.2	11.9	12.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	461	851	692	374	0	770	300	1483	543	232	742	706
V/C Ratio(X)	0.78	0.41	0.22	0.21	0.00	0.36	0.32	0.54	0.21	0.43	0.44	0.45
Avail Cap(c_a), veh/h	467	862	702	379	0	781	300	1483	543	232	742	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	28.3	16.4	14.8	22.2	0.0	16.0	26.4	19.7	16.7	30.2	18.7	18.8
Incr Delay (d2), s/veh	7.2	0.4	0.2	0.5	0.0	0.5	2.8	1.4	0.9	5.4	1.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	7.8	3.2	2.3	0.0	6.6	3.3	10.2	2.8	4.0	8.6	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	16.9	15.1	22.6	0.0	16.4	29.2	21.1	17.6	35.6	20.6	20.7
LnGrp LOS	D	B	B	C	A	B	C	C	B	D	C	C
Approach Vol, veh/h		856			353			1003			743	
Approach Delay, s/veh		24.4			17.8			21.4			22.7	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.6		46.4		43.6		46.4				
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5				
Max Green Setting (Gmax), s		37.0		41.5		37.0		41.5				
Max Q Clear Time (g_c+I1), s		23.1		40.0		30.2		19.1				
Green Ext Time (p_c), s		7.6		0.9		3.6		3.5				

Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1531	497	648	695	10	826	10	391	9	25	30
Future Volume (veh/h)	46	1531	497	648	695	10	826	10	391	9	25	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.87
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1702	414	661	709	10	850	0	75	9	26	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	2278	858	553	1961	28	862	0	383	13	38	46
Arrive On Green	0.09	0.30	0.30	0.16	0.38	0.38	0.24	0.00	0.24	0.07	0.07	0.07
Sat Flow, veh/h	1781	7481	1557	3456	5171	73	3563	0	1585	203	587	700
Grp Volume(v), veh/h	47	1702	414	661	466	253	850	0	75	66	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1728	1702	1840	1781	0	1585	1491	0	0
Q Serve(g_s), s	2.6	21.5	17.2	16.8	10.3	10.4	24.9	0.0	4.0	4.5	0.0	0.0
Cycle Q Clear(g_c), s	2.6	21.5	17.2	16.8	10.3	10.4	24.9	0.0	4.0	4.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.14		0.47
Lane Grp Cap(c), veh/h	152	2278	858	553	1291	698	862	0	383	97	0	0
V/C Ratio(X)	0.31	0.75	0.48	1.20	0.36	0.36	0.99	0.00	0.20	0.68	0.00	0.00
Avail Cap(c_a), veh/h	204	2278	858	553	1291	698	862	0	383	200	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.1	32.9	14.7	44.1	23.4	23.5	39.6	0.0	31.7	48.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	2.3	1.9	104.7	0.8	1.5	27.2	0.0	0.2	8.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	14.8	15.2	23.1	7.4	8.1	20.0	0.0	2.7	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	35.2	16.7	148.8	24.2	24.9	66.8	0.0	31.9	56.1	0.0	0.0
LnGrp LOS	D	D	B	F	C	C	E	A	C	E	A	A
Approach Vol, veh/h		2163			1380			925			66	
Approach Delay, s/veh		31.9			84.0			64.0			56.1	
Approach LOS		C			F			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.1	24.0	38.8		11.1	16.2	46.6				
Change Period (Y+Rc), s		5.7	7.2	* 6.8		4.3	7.2	* 6.8				
Max Green Setting (Gmax), s		25.4	16.8	* 25		14.1	12.0	* 30				
Max Q Clear Time (g_c+I1), s		26.9	18.8	23.5		6.5	4.6	12.4				
Green Ext Time (p_c), s		0.0	0.0	1.1		0.1	0.0	3.9				

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX E

Los Angeles County CMP Growth Factors

Exhibit D-4

REGIONAL STATISTICAL AREAS

RSA	AREA GENERALLY BOUNDED BY
7	Agoura Hills, Calabasas, Hidden Hills
8	Santa Clarita, Castaic
9	Lancaster, Gorman
10	Palmdale, Agua Dulce
11	Angeles National Forest
12	Woodland Hills, Sherman Oaks, Sepulveda, Porter Ranch
13	Burbank, Sun Valley, North Hollywood
14	San Fernando, Granada Hills, Sylmar, Tujunga
15	Malibu
16	Santa Monica, Bel Air, Palisades, Marina Del Rey
17	Westwood, Beverly Glen, Los Feliz, Hyde Park, Culver City
18	Westchester, Redondo Beach, Gardena, Inglewood
19	Torrance, Palos Verdes, Carson
20	Long Beach, Lakewood
21	Boyle Heights, Montebello, Compton, Willowbrook
22	Paramount, Hawaiian Gardens, Pico Rivera, La Habra Heights
23	Downtown Los Angeles, Exposition Park, MacArthur Park
24	Glendale, Echo Park, El Sereno
25	La Canada-Flintridge, Pasadena, Monterey Park, South El Monte, Duarte
26	Azusa, Glendora, Diamond Bar, Hacienda Heights
27	San Dimas, Pomona, Claremont

Exhibit D-1

GENERAL TRAFFIC VOLUME GROWTH FACTORS

RSA	Representative City/Place	2010	2015	2020	2025	2030	2035
7	Agoura Hills	1.000	1.020	1.041	1.052	1.063	1.075
8	Santa Clarita	1.000	1.145	1.291	1.348	1.405	1.461
9	Lancaster	1.000	1.214	1.427	1.676	1.924	2.172
10	Palmdale	1.000	1.134	1.267	1.363	1.458	1.553
11	Angeles Forest	1.000	1.151	1.301	1.394	1.487	1.580
12	West S.F. Valley	1.000	1.027	1.054	1.068	1.083	1.097
13	Burbank	1.000	1.024	1.049	1.063	1.077	1.092
14	Sylmar	1.000	1.024	1.049	1.071	1.093	1.114
15	Malibu	1.000	1.027	1.054	1.075	1.096	1.117
16	Santa Monica	1.000	1.014	1.028	1.038	1.049	1.059
17	West/Central L.A.	1.000	1.007	1.014	1.024	1.034	1.044
18	South Bay/LAX	1.000	1.013	1.026	1.035	1.044	1.053
19	Palos Verdes	1.000	1.025	1.051	1.061	1.071	1.081
20	Long Beach	1.000	1.076	1.152	1.160	1.168	1.177
21	Vernon	1.000	1.073	1.146	1.158	1.170	1.182
22	Downey	1.000	1.052	1.104	1.116	1.127	1.139
23	Downtown L.A.	1.000	1.009	1.018	1.030	1.042	1.054
24	Glendale	1.000	1.014	1.027	1.041	1.055	1.068
25	Pasadena	1.000	1.041	1.082	1.098	1.115	1.131
26	West Covina	1.000	1.023	1.046	1.066	1.086	1.106
27	Pomona	1.000	1.081	1.161	1.190	1.219	1.248

APPENDIX F

118th Street Closure Traffic Diversions

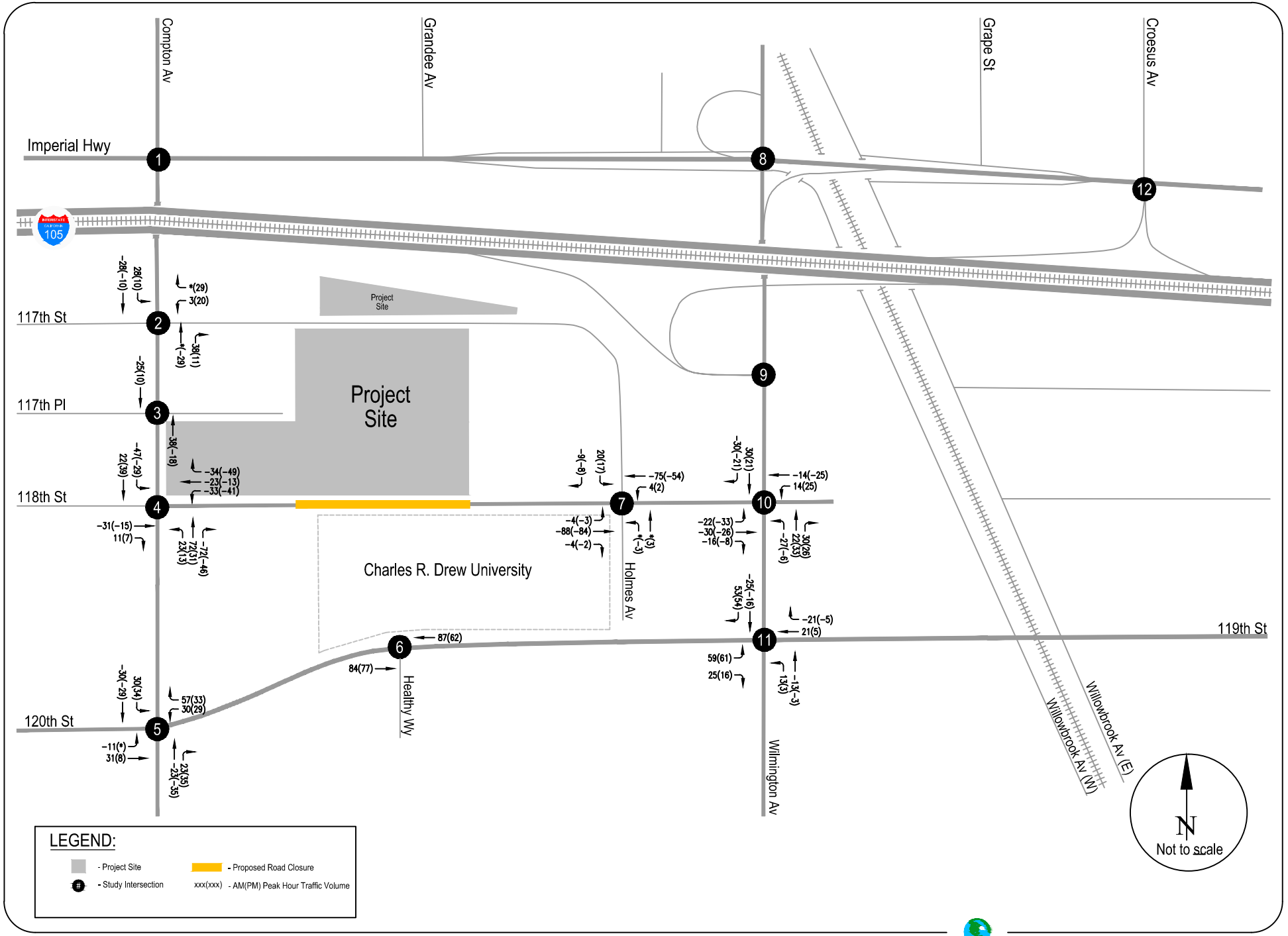


FIGURE 20
118TH STREET CLOSURE VEHICLE DIVERSIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

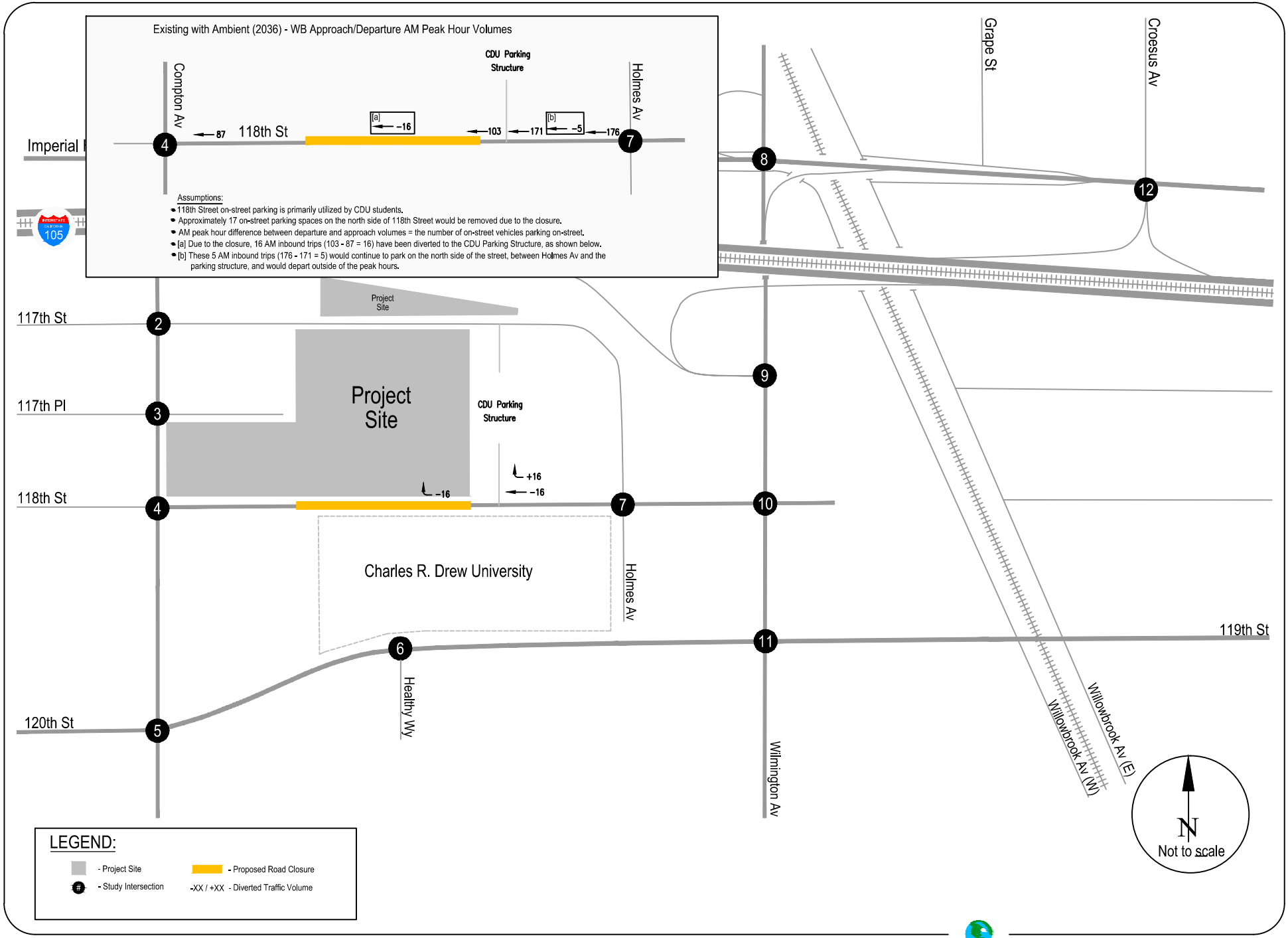


EXHIBIT 1A - AM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE OF ON-STREET PARKED VEHICLES DIVERSIONS - WESTBOUND

RAJU Associates, Inc.

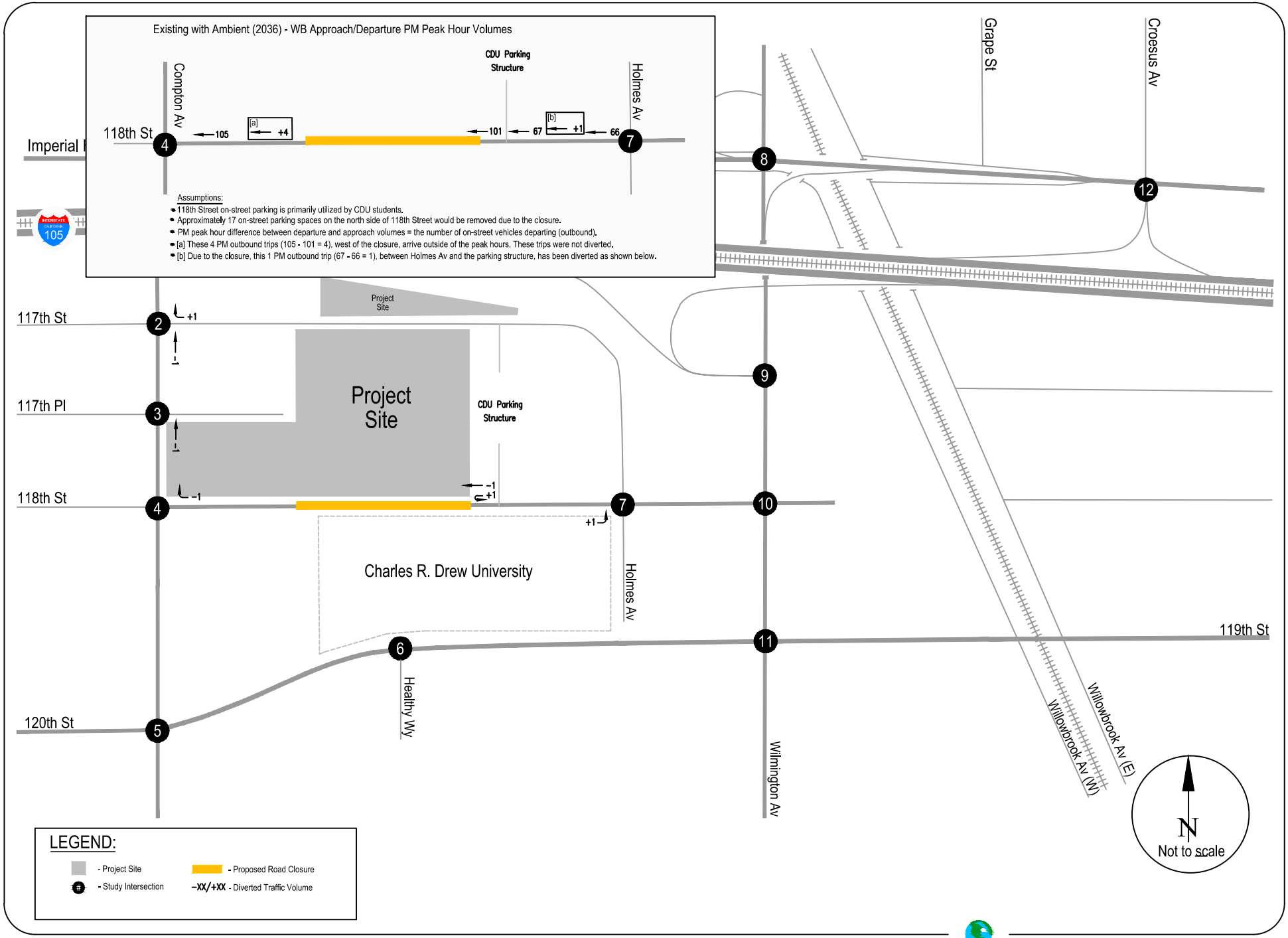


EXHIBIT 1B - PM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE OF ON-STREET PARKED VEHICLES DIVERSIONS - WESTBOUND

RAJU Associates, Inc.

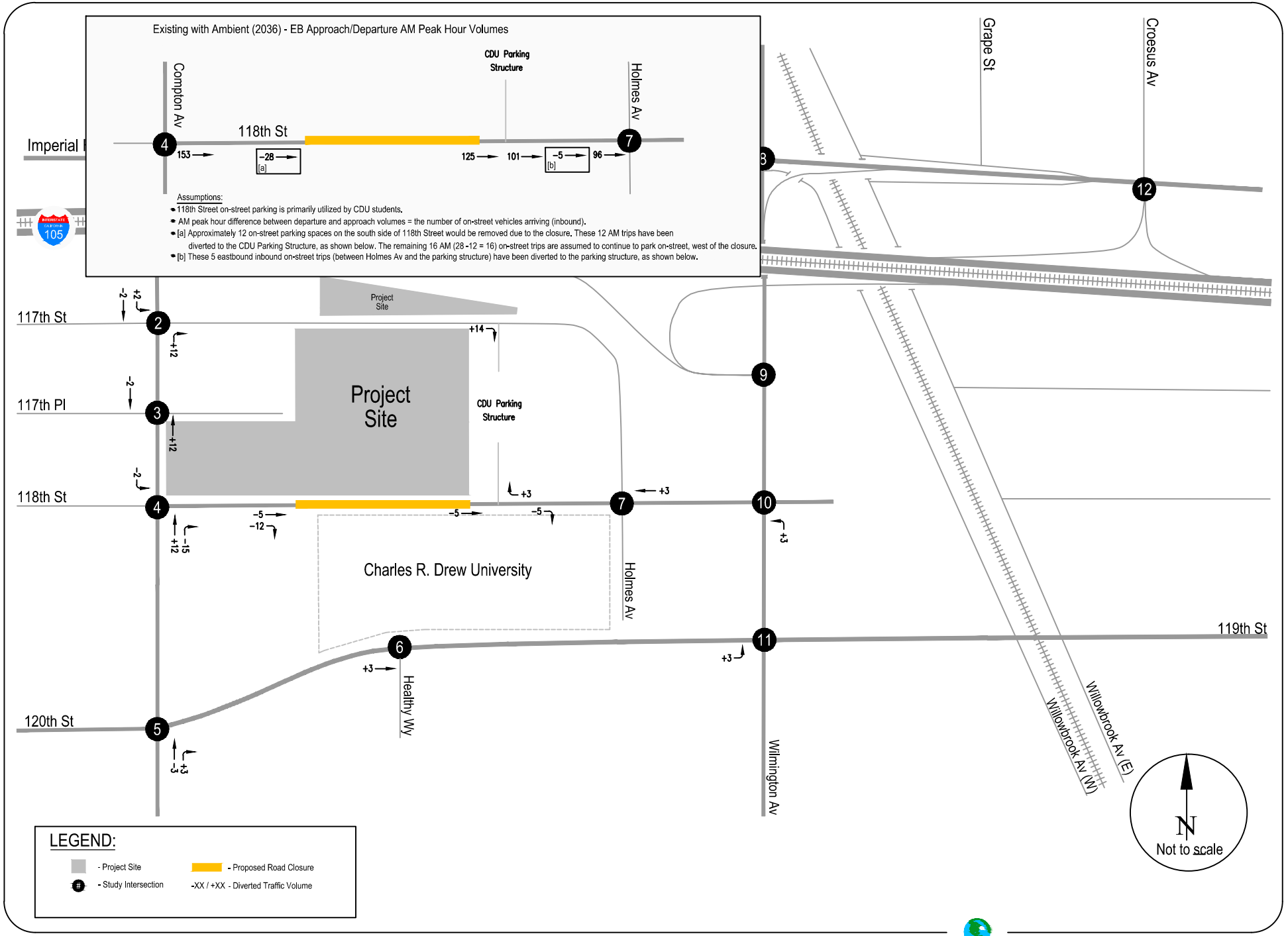


EXHIBIT 2A - AM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE OF ON-STREET PARKED VEHICLES DIVERSIONS - EASTBOUND

RAJU Associates, Inc.

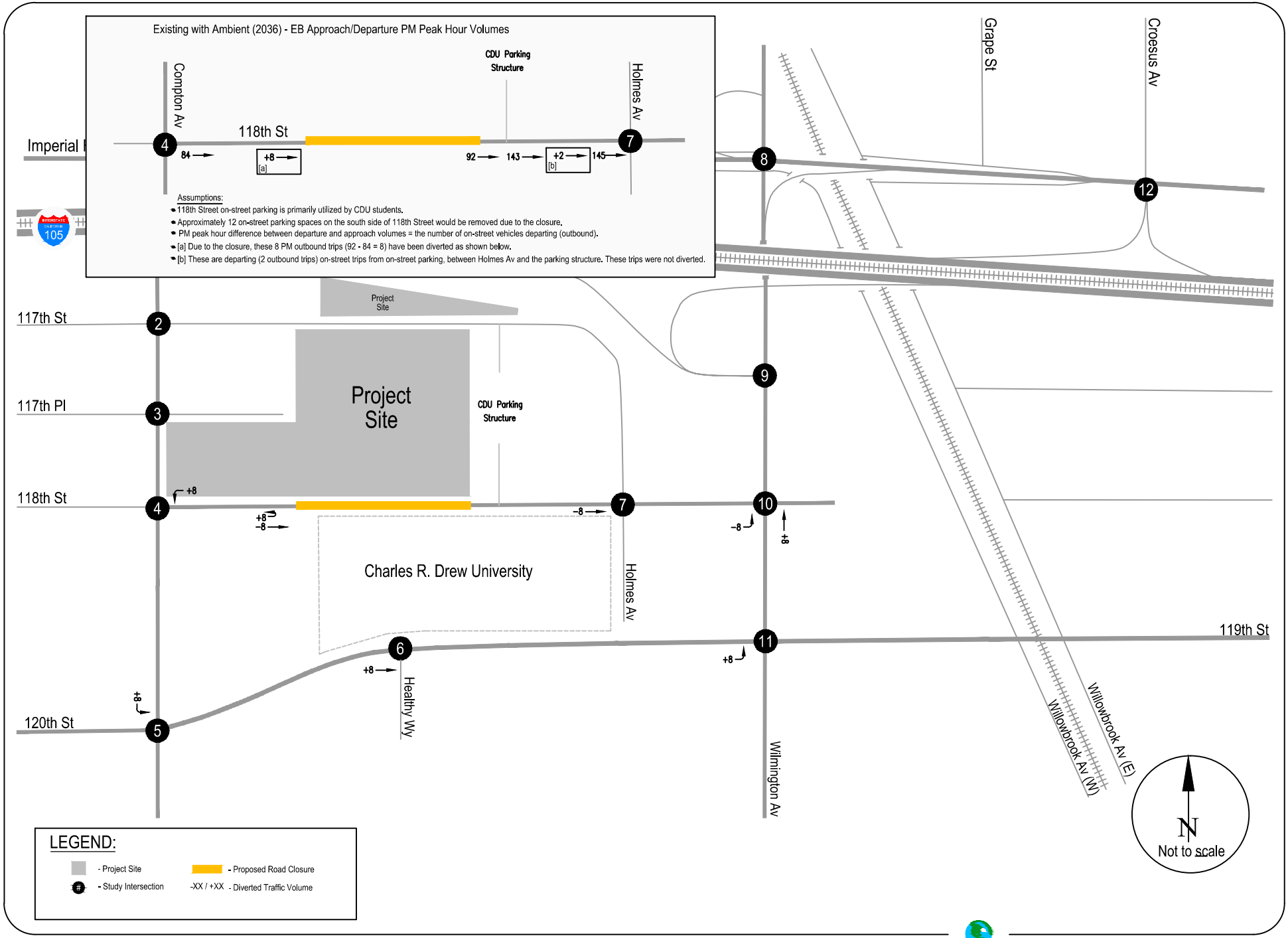


EXHIBIT 2B - PM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE OF ON-STREET PARKED VEHICLES DIVERSIONS - EASTBOUND

RAJU Associates, Inc.

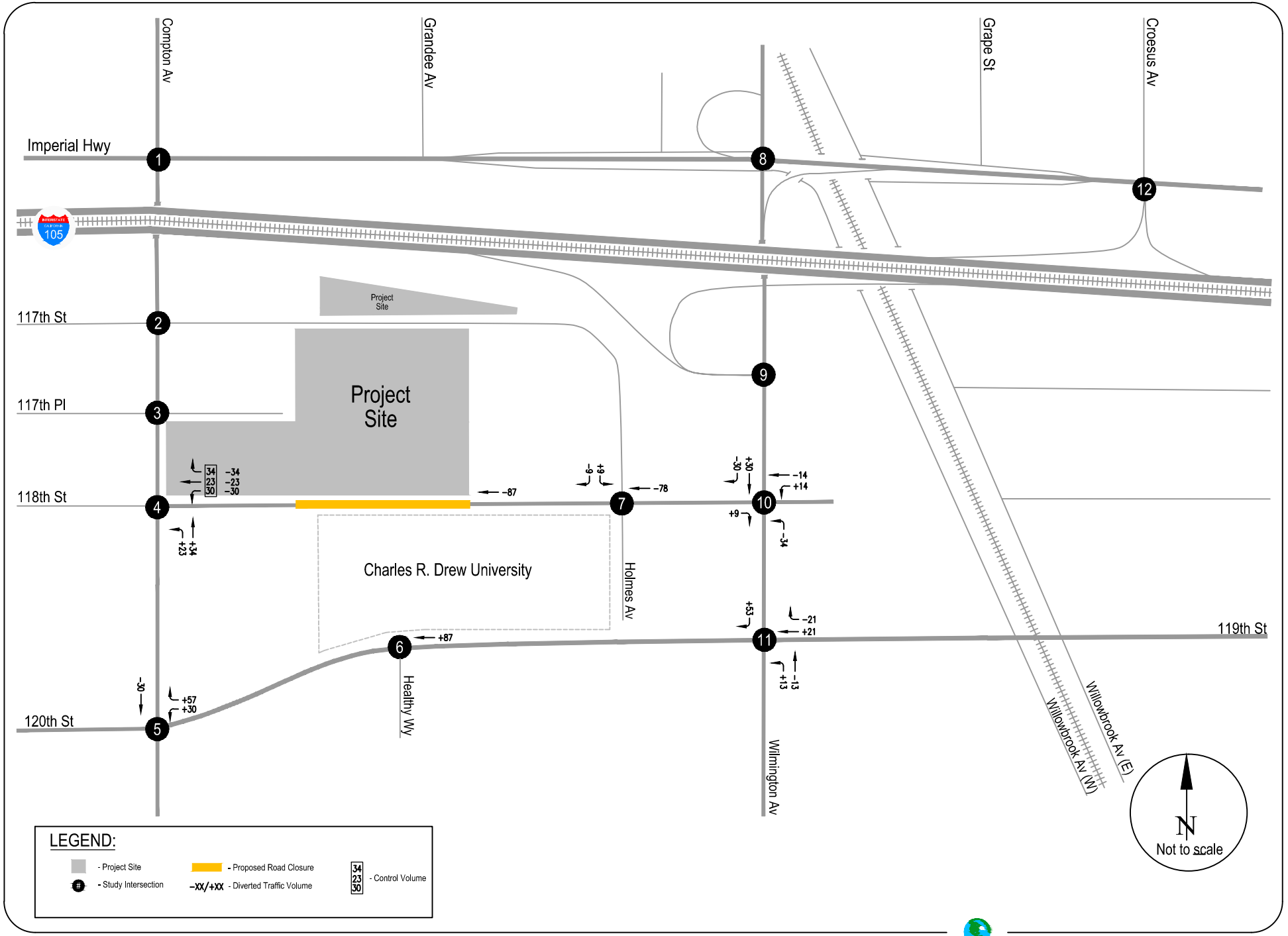


EXHIBIT 3A - AM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE VEHICLE DIVERSIONS - WESTBOUND THROUGH TRAFFIC

RAJU Associates, Inc.

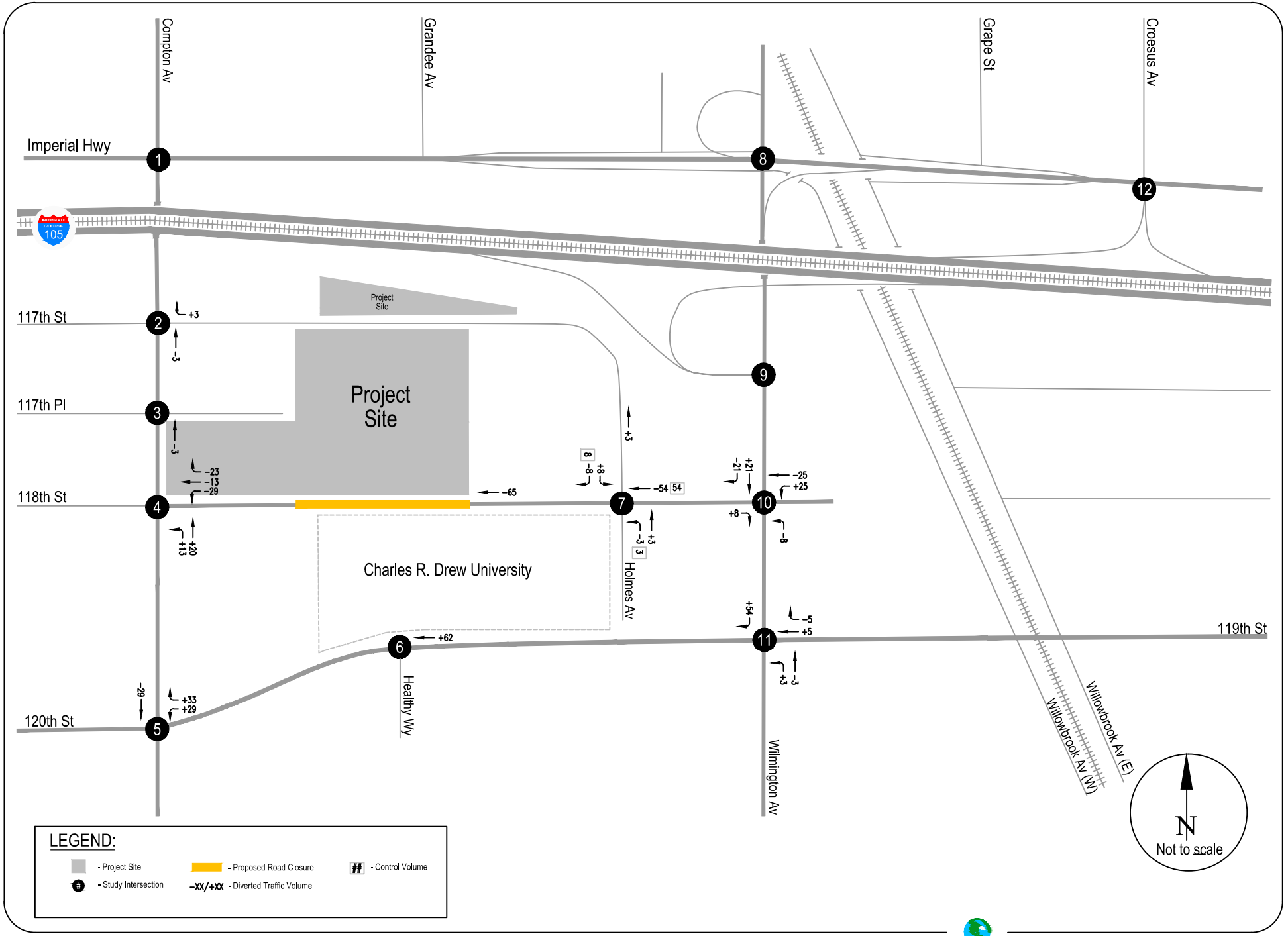


EXHIBIT 3B - PM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE VEHICLE DIVERSIONS - WESTBOUND THROUGH TRAFFIC

RAJU Associates, Inc.

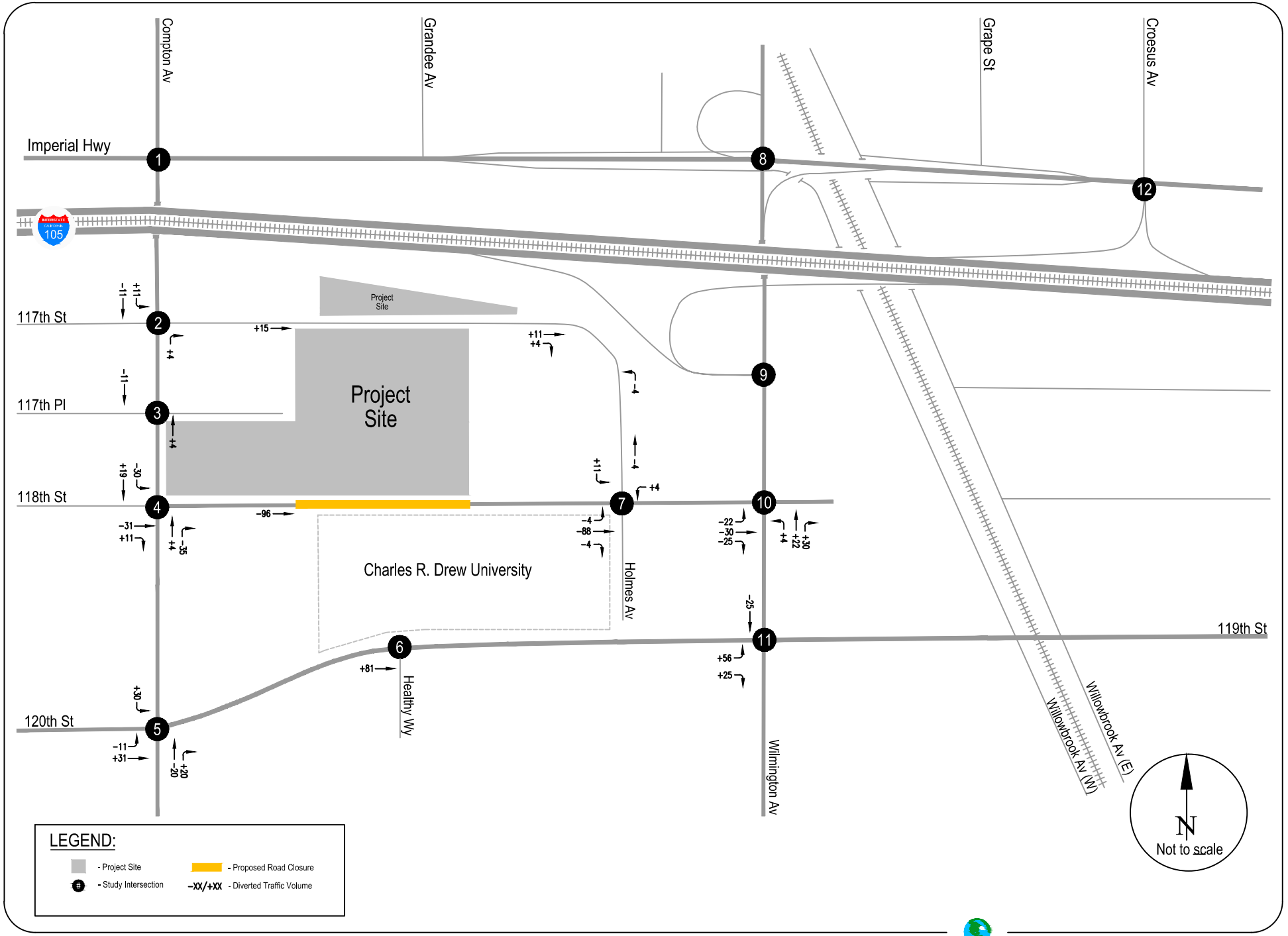
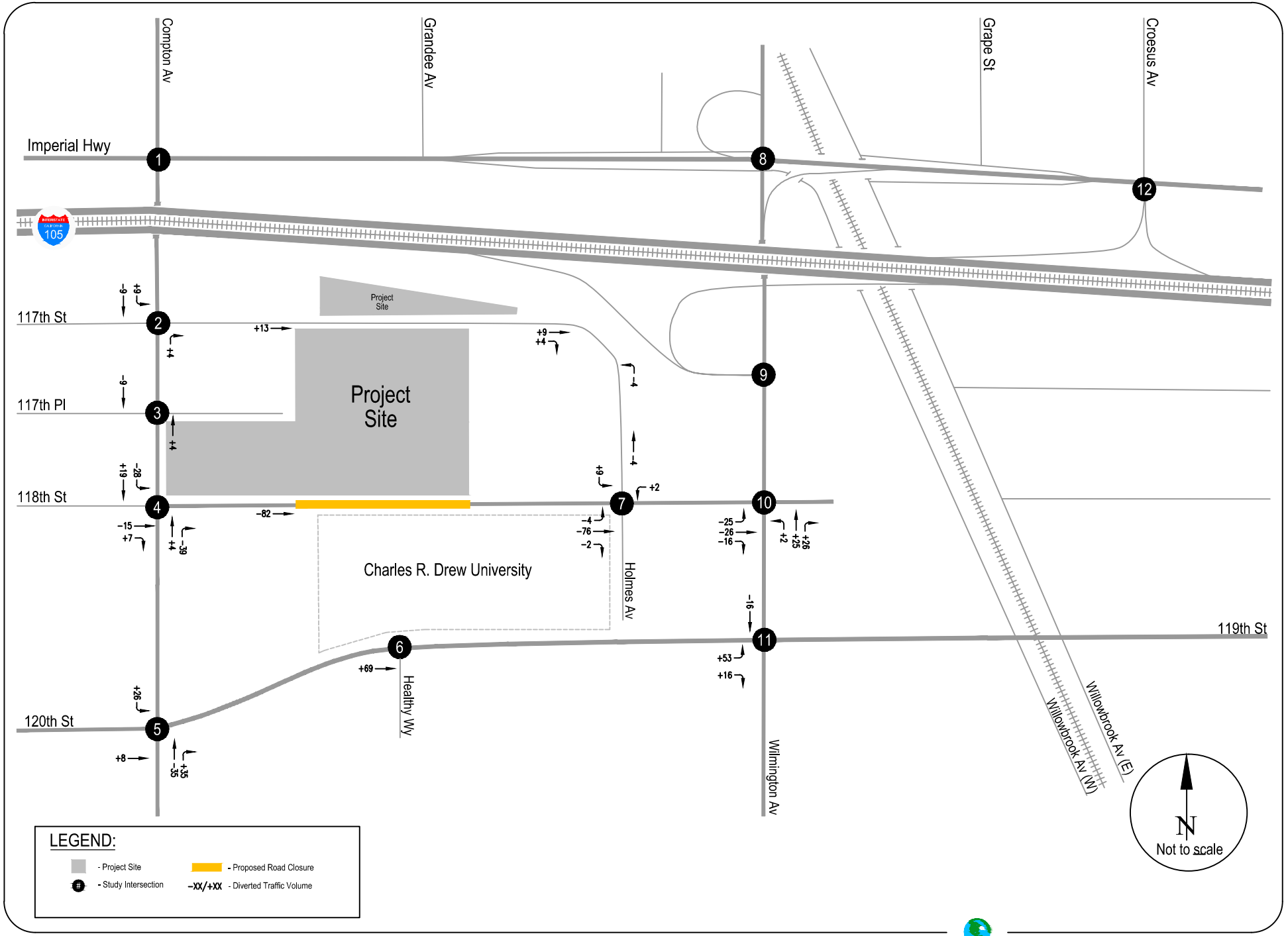


EXHIBIT 4A - AM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE VEHICLE DIVERSIONS - EASTBOUND THROUGH TRAFFIC

RAJU Associates, Inc.



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118TH STREET CLOSURE VEHICLE DIVERSIONS - EASTBOUND THROUGH TRAFFIC

RAJU Associates, Inc.

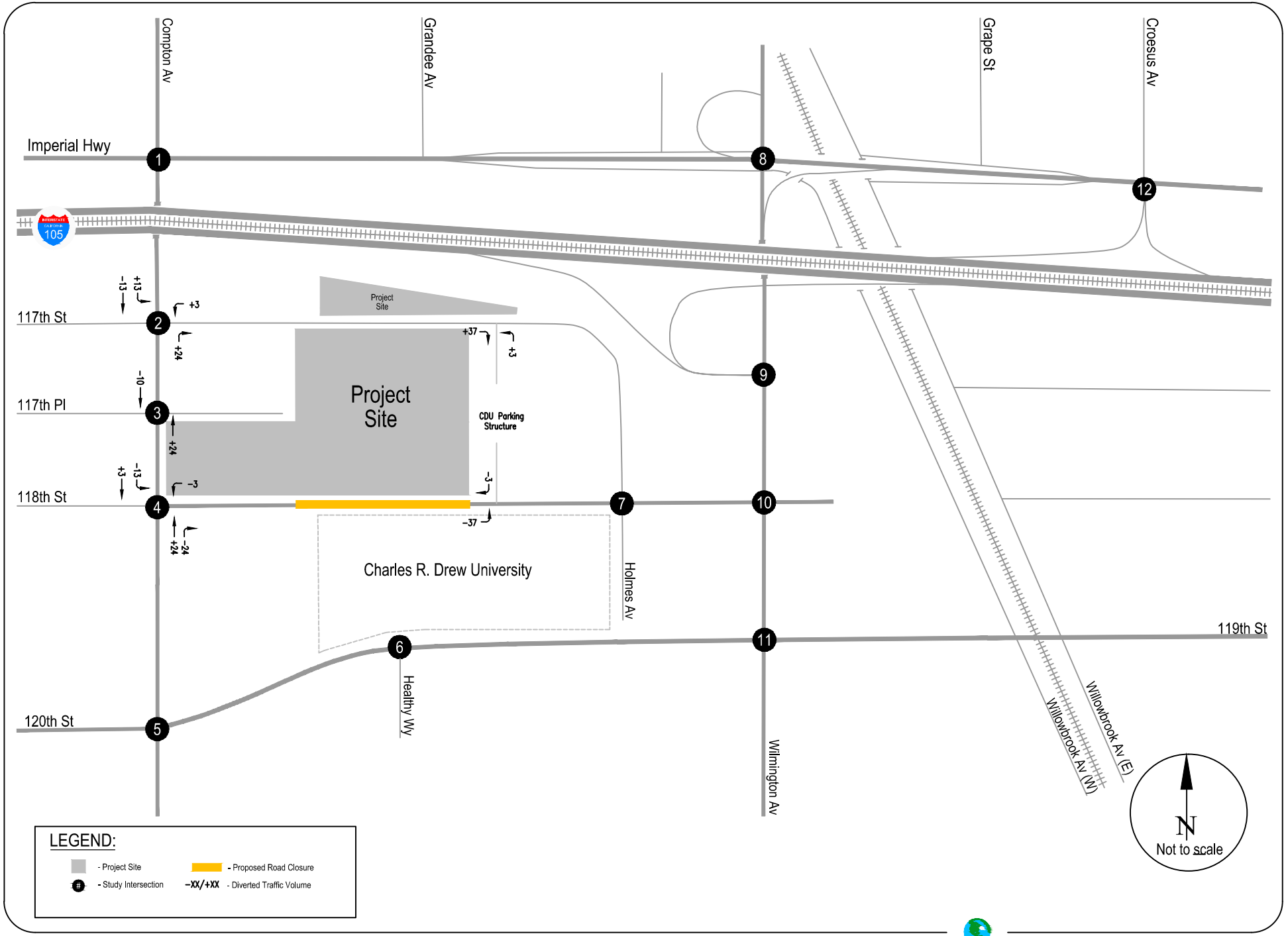

EXHIBIT 5A - AM PEAK HOUR
118TH STREET CLOSURE VEHICLE DIVERSIONS - CDU PARKING STRUCTURE

RAJU Associates, Inc.

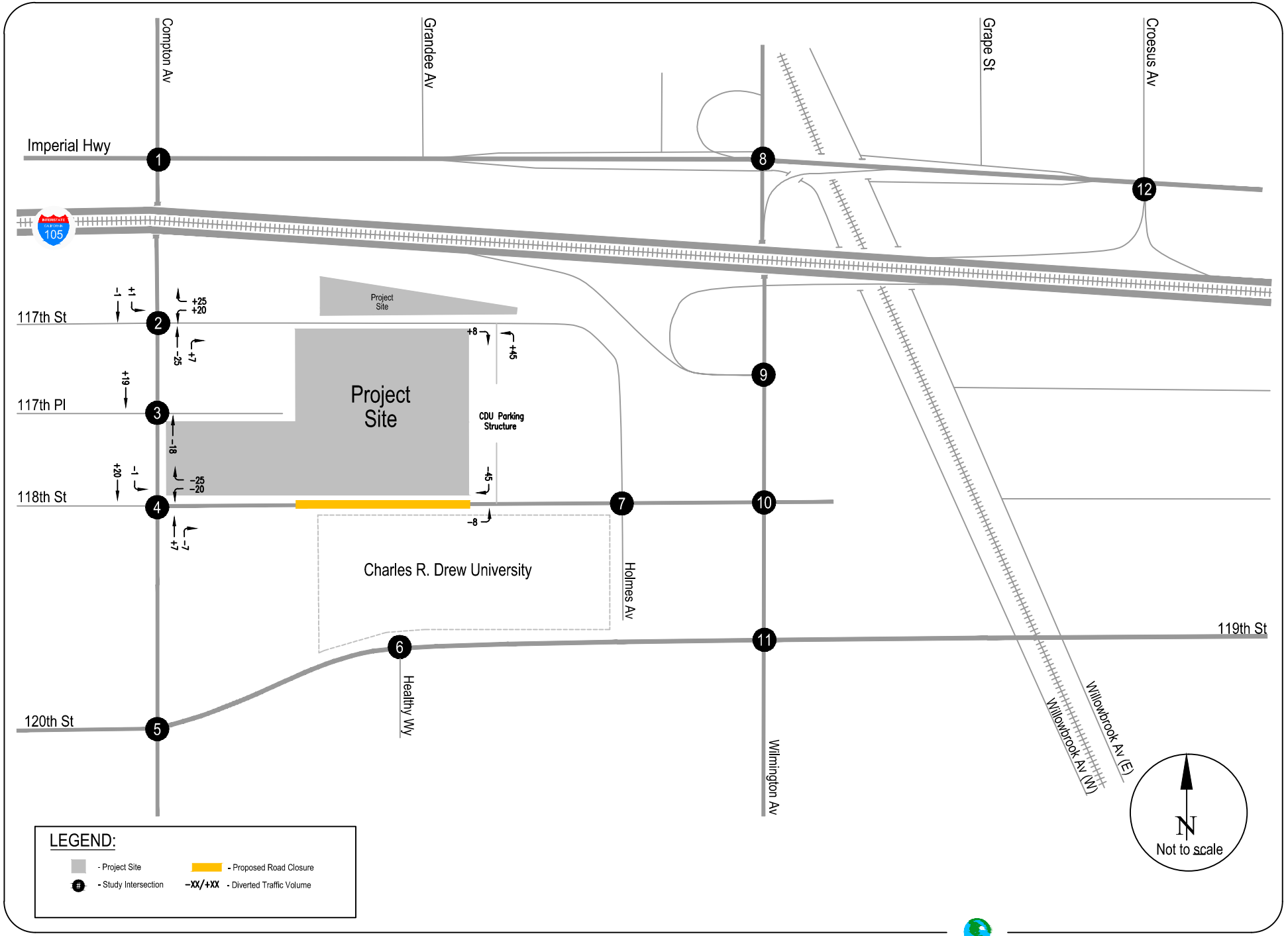

EXHIBIT 5B - PM PEAK HOUR TRAFFIC VOLUMES
118TH STREET CLOSURE VEHICLE DIVERSIONS - CDU PARKING STRUCTURE

RAJU Associates, Inc.

Appendix J
Water Supply Assessment

CHARLES R. DREW/MARTIN LUTHER KING WELLNESS AND EDUCATION CAMPUS

WATER SUPPLY ASSESSMENT

September 2023

Prepared for:
LIBERTY UTILITIES – PARK WATER

Prepared by:
PSOMAS
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Suite 3200
Los Angeles, CA 90017
Project No. 1CDU010100

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ABBREVIATIONS/ACRONYMS

AF	Acre-feet
AFY	Acre-feet per year
CBMWD	Central Basin Municipal Water District
CDU/MLK	Charles Drew University/Martin Luther King
CEQA	California Environmental Quality Act
CHC	Century Housing Corporation
CMWC	CDU/MLK Wellness Collaborative, LLC
CRA	Colorado River Aqueduct
CVP	Central Valley Project
CY	Calendar Year
DCR	Delivery Capability Report
DFW	Department of Fish and Wildlife
DOF	California State Department of Finance
DU	Dwelling Unit
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESR	Engineering Survey Report
ETo	Evapotranspiration
FTE	Full-Time Equivalent
FY	Fiscal Year
GMP	Groundwater Management Plan
GPCD	Gallons per capita per day
gpd	Gallons per day
gpd/ksf	Gallons per day per thousand square feet
GSP	Groundwater Sustainability Plan
IRP	Integrated Resources Planning
IRWM	Integrated Regional Water Management
IRWUS	Indoor Water Use Efficiency Standard
JWPCP	Joint Water Pollution Control Plant
ksf	Thousand square feet
LACSD	Los Angeles County Sanitation Districts
LCWRP	Los Coyotes Water Reclamation Plant
LVL	Leo J. Vander Lans Advanced Water Treatment Facility
MAF	Million acre-feet
Metropolitan, MWD	Metropolitan Water District of Southern California
MG	Million gallons
MGD	Million gallons per day
MAWA	Maximum Applied Water Allowance
MWELO	Model Water Efficient Landscape Ordinance
PCE	Perchloroethylene
PFAS	Per- and Poly-Fluoroalkyl Substances

SB	Senate Bill
SCAG	Southern California Association of Governments
SDCWA	San Diego County Water Authority
sf	Square feet
SGMA	Sustainable Groundwater Management Act
SWP	State Water Project
TAF	Thousand Acre-Feet
TCE	Trichloroethylene
TSA	Thomas Safran & Associates
UWMP	Urban Water Management Plan
VOCs	Volatile Organic Chemicals
WIN	Water Independence Now
WRD	Water Replenishment District of Southern California
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan
WSDM	Water Surplus and Drought Management
WUE	Water Use Efficiency
WY	Water Year

EXECUTIVE SUMMARY

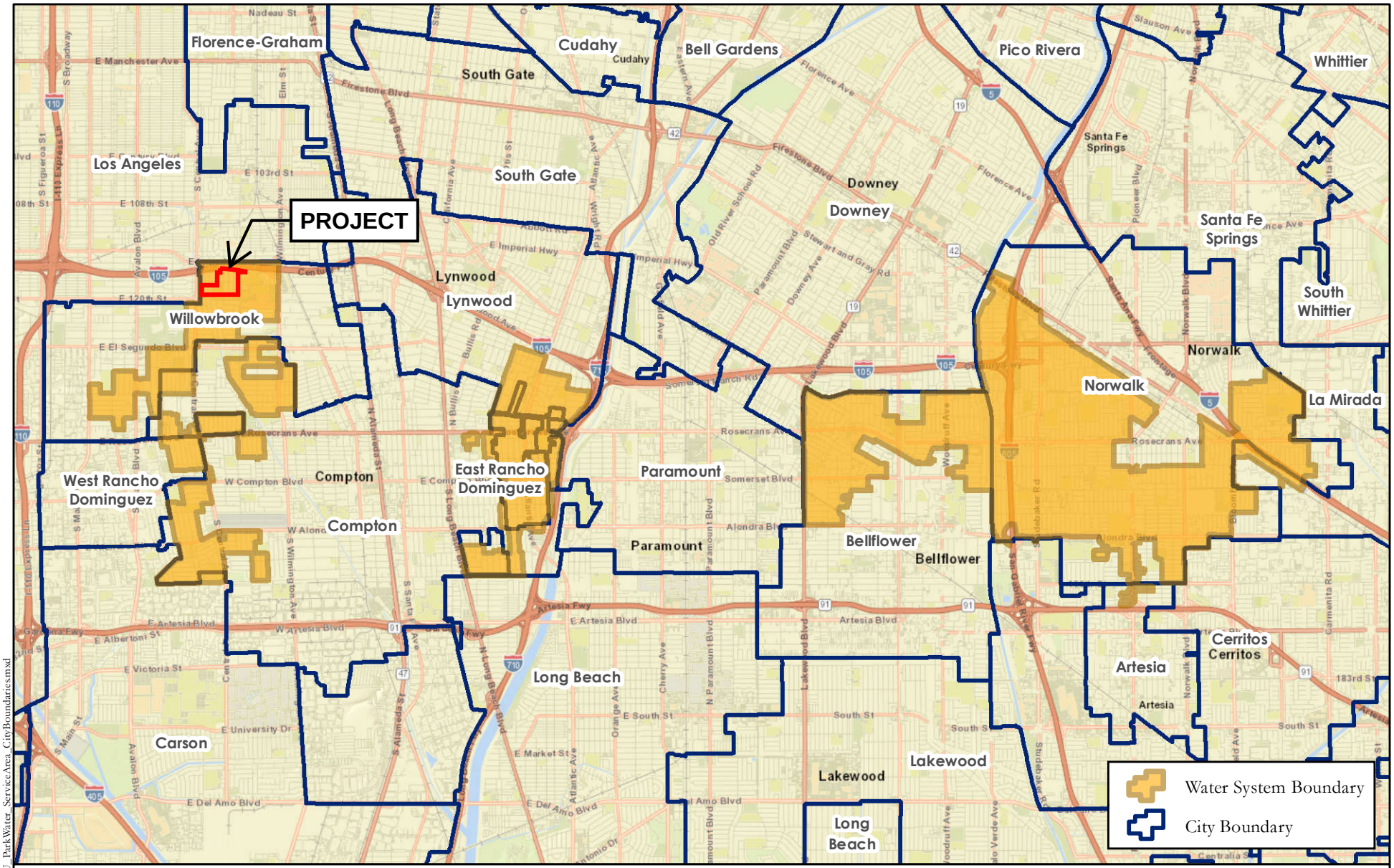
This Water Supply Assessment (WSA) has been prepared for the CDU/MLK Wellness and Education Campus Project (Project) in accordance with applicable sections of the Public Resources Code and California Water Code as referenced in Senate Bill (SB) 610. The Project is proposed by the CDU/MLK Wellness Collaborative, LLC (CMWC), which is comprised of Charles R. Drew University of Medicine and Science (CDU), Thomas Safran & Associates (TSA) and Century Housing Corporation (CHC). The objective of the Project is to provide educational opportunities and support for the University, affordable housing, recreational facilities, and employment generating opportunities.

The Wellness and Education Campus site encompasses approximately 12.8 acres and is located within the unincorporated portion of Los Angeles County in the Willowbrook community approximately 10 miles south of downtown Los Angeles. The Project boundaries are the I-105 Freeway to the north, E. 118th Street to the south, and generally between Compton Avenue on the west and Holmes Avenue to the east (see Figure ES.1).

The purpose of this WSA is to verify there is sufficient water supply from the water provider, Liberty Utilities Corp. (also referred to as Liberty Utilities or Liberty Utilities – Park Water), for the Project as well as other Liberty Utilities water demands projected through the year 2045. This WSA estimates the additional water demand that would result from the Project land use changes and analyzes the impact it would have on the agency's water supply. The proposed land use changes and commensurate additional water demand requires the preparation of a WSA.

The Project is located within the Willowbrook Transit Oriented District Specific Plan area that encompasses 312 acres. The Project Site is part of the Specific Plan identified as the "Northwest Subarea" that may provide a variety of housing options for current and future workers, residents in the area and university/student housing. The Specific Plan also encourages employment generating uses within this subarea "such as medical back office, laboratory facilities, hospital equipment facility, medical or university support businesses, etc. that provide job opportunities for both local residents and others".

The Project includes affordable housing and market-rate faculty/staff and student housing, student-oriented retail amenities and athletic facilities. The Project would also include parking for student, staff and faculty, and an office building. Several community-oriented spaces would be created in two of the buildings. Table ES.1 includes a summary of the proposed uses and Figure ES.2 shows the Project site plan with proposed building and use locations. The Project includes 559 proposed residential units. Since the Project exceeds the minimum threshold for residential development of 500 dwelling units, it necessitates the preparation of a WSA.



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STETSON ENGINEERS INC.

PSOMAS

PROJECT LOCATION MAP
WITHIN LIBERTY UTILITIES, PARK WATER
SERVICE AREA BOUNDARIES

FIGURE ES.1

Table ES.1
Project Land Use Statistics

AFFORDABLE & SENIOR HOUSING				
Affordable Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #1	47	22	12	13
Building #2	47	22	12	13
Affordable & Senior Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #3	53	24	16	13
Building #4	53	24	16	13
Building #5 (Senior)	54	53	0	1
STUDENT & WORKFORCE HOUSING				
Student Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #1 (Mixed Apts)	72	35	24	13
Building #2 (Mixed Apts)	70	40	20	10
Building #3 (Suites)	108	12	96	0
Community Space	5,000	sq. ft.		
Retail (University oriented)	10,270	sq. ft.		
Workforce Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR**	**3BR / 2B**
Building #4 (Mixed Apts)	55	30	15	10
Total Dwelling Units	**559**			
ATHLETICS				
Athletics				
Gym/Pool	43,100	sq. ft.		
Athletic Field	54,000	sq. ft.		
Office Building	116,000	sq. ft.		
Community Use	5,000	sq. ft.		
Facilities Services	11,500	sq. ft.		

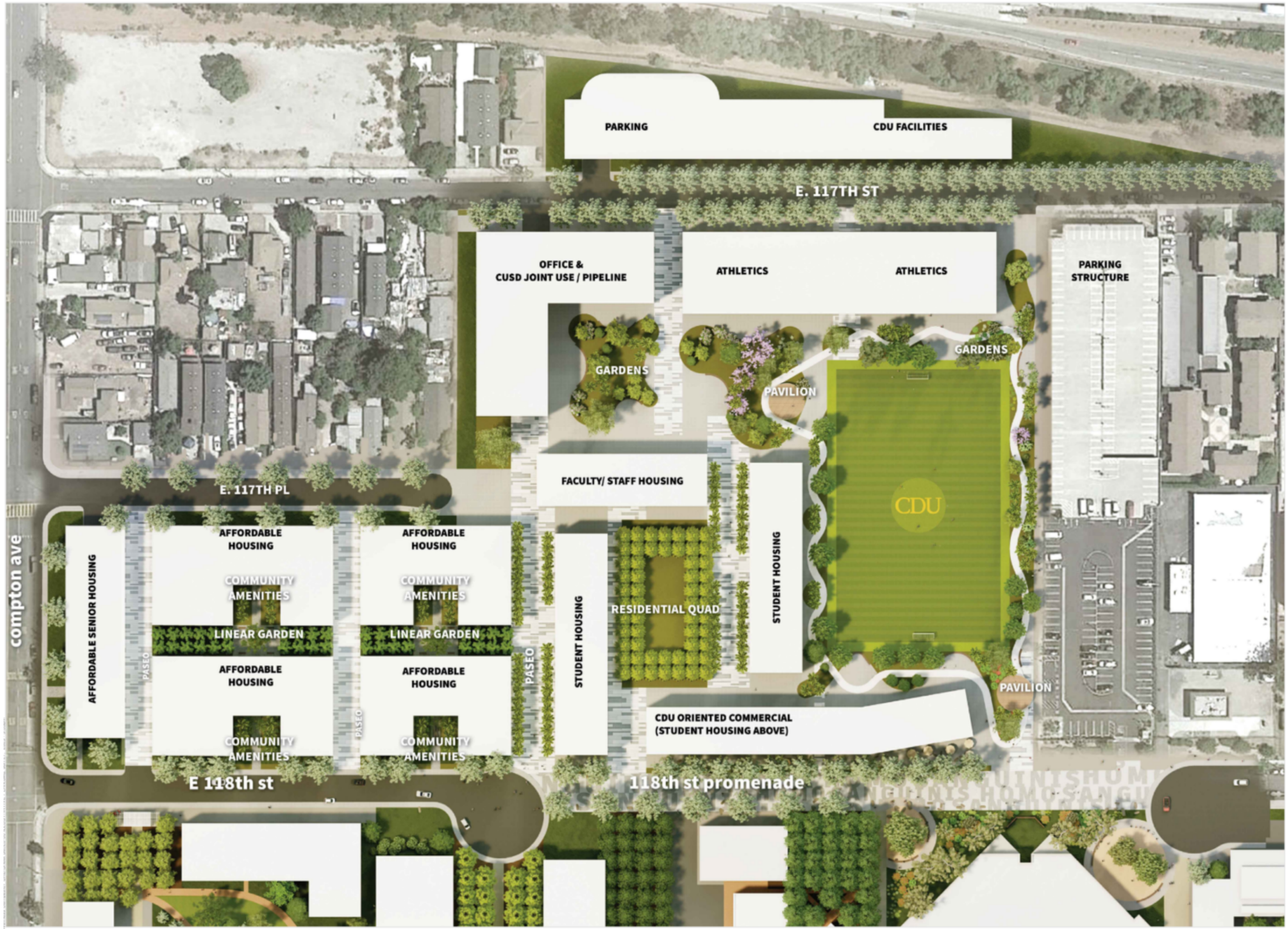


Figure ES.2
Project Site Plan

NORTH

ES.1 Water Demand

Project Water Demand

Calendar 2020 metered water consumption (demand) for the existing land uses in the Project Site are assumed to be negligible since the site consists of abandoned former elementary school buildings and vacant land. So, there is no existing demand that was included in the 2020 UWMP for Liberty to subtract from the proposed water demand to determine net new additional demand.

Proposed water demands for the Project were estimated as follows. Estimated population and employment figures were used to generate inside water demands and outside landscape irrigation demands were estimated based on landscaping plans. For the residential development persons per dwelling unit were generated based on the product breakdown using number of bedrooms for the non-student housing products and beds for the student housing. Table ES.2 shows the population estimate assumptions and totals by product. Pursuant to California SB 1157 the Indoor Water Use Efficiency Standard (IRWUS) was amended to 55 gallons per capita daily (gpcd) through December 31, 2024. In 2025, and until 2030, the standard shall be 47 gpcd, and beginning in 2030 it shall be 42 gpcd. The majority of the Project is proposed to be on-line between 2025 and 2030 so a factor of 47.0 gpcd was used for indoor water demand factor.

For non-residential uses a factor of 20 gallons per employee daily was used based on industry standards. Swimming pool makeup water was estimated based on the square footage of the pool assuming a 25 yard by 25 yard dimension. Landscape irrigation water demands were calculated using area square footage from landscaping plans, local evapotranspiration rates, common plant factors and irrigation efficiency factors for the athletic field, which is exempt from the Maximum Applied Water Allowance (MAWA) formula included in the State of California Model Water Efficient Landscape Ordinance (MWELO), and finally using MAWA on the remaining (non-athletic field) landscape areas. More detailed information on the development of the water demand summary table below is provided in Section 3.

Table ES.2
Estimated Project Water Demand

		Area (s.f.)	Demand Factor (GPCD)	Total Water Use	
				GPD	AFY
Estimated Campus Population	1,431		47.0	67,257	75.3
Estimated Campus Employment	150		20	3,000	3.4
Swimming Pool[1]		625	0.35	219	0.2
Subtotal Indoor				70,476	78.9
Athletic Field[2]		64,000		5,810	6.5
Other Landscaping[2]		131,737		6,166	6.9
Subtotal Outdoor				11,976	13.4
Total Water Use[3]				**82,451**	**92.4**

1) Swimming Pool Makeup Water (Demand Factor is gpd/s.f. surface area)
2) See Table 3.5 for detailed irrigation calculations
3) Not including water loss

Agency Water Demand

Liberty Utilities water demands were developed and projected in the agency's 2020 UWMP. The agency's total water use in calendar year (CY) 2020 was 11,224 AF, including 252 AF of recycled water use. Over the ten-year period from 2011 to 2020 total water demands ranged from 8,640 AF to 11,837 AF, with an average of 10,524 AF. Demand projections in Liberty's 2020 UWMP were based on existing use data as well as projected land use, population, economic growth, and future passive and active conservation measures (baseline conservation). CY 2020 and projected agency water demands are shown in Table ES.3. All demand projections include an estimated 2.57 percent in water loss or non-revenue water consistent with the 2020 UWMP.

Table ES.3
2020 UWMP Projected Liberty Utilities Water Demand

Use Type	2020	2025	2030	2035	2040	2045
Single Family	7,670	7,835	7,875	7,915	7,959	8,000
Multi-Family	1,287	1,315	1,322	1,329	1,336	1,343
Commercial	1,146	1,171	1,177	1,183	1,189	1,195
Industrial	82	84	84	85	85	86
Institutional/Governmental	489	499	502	505	507	510
Losses	282	288	290	291	293	295
Other (Fire & Temp Services)	16	16	16	17	17	17
Total Potable	10,972	11,208	11,266	11,325	11,386	11,446
Recycled Water	252	260	260	260	260	260
Total Water Use	**11,224**	**11,468**	**11,526**	**11,585**	**11,646**	**11,706**

Southern California's urban water demand has been largely shaped by the efforts to comply with The Water Conservation Act of 2009, also known as Senate Bill (SB) x7-7. SB x7-7, signed into law on February 3, 2010, required the State of California to reduce urban water use by 20 percent by the year 2020. Liberty has been actively engaged in efforts to reduce water use in its service area and has met the final 2020 water use target as documented in the 2020 UWMP.

It is not obviously apparent if the increased demands for the Project of 92.4 AFY (94.7 AFY including water loss) were specifically included in the demand projections in the 2020 UWMP. The Project phasing is based on a build-out by 2033. The 2020 UWMP estimated an increase in population within Liberty's total service area between 2020 and 2035 of 2,128 (Table 3-1 of Liberty 2020 UWMP). The Project is conservatively estimated to have a build-out residential population of 1,431 (high estimate), which would equate to approximately 67 percent of the total population growth shown in the UWMP for this same period. Potable water demand was projected to increase by 343 AFY in the 2020 UWMP over this period and the Project water demand is estimated at approximately 95 AFY (including water loss), which equates to less than 28 percent of the overall increase in total service area potable water demand. This WSA is evaluating the ability of the agency to reliably supply water to the Project and the other demands within its service area over the next twenty years (and not estimated population increase). The 2020 UWMP allows for a reasonable additional water demand increase beyond those of this Project. Additionally, the 2021 and 2022 water use within Liberty's service area has been 7 and 15 percent below the 2020 water use, respectively. Therefore, it can be reasonably concluded that the Project demands were included in the estimated demand projections in Liberty Utilities' 2020 UWMP and will not need

to be added to the projections included in the 2020 UWMP to evaluate water supply reliability. It should also be noted that the Project's estimated demand of approximately 95 AFY (with water loss) would make up only 0.8 percent of the total water demand of 11,706 AFY projected for Year 2045 in Liberty's 2020 UWMP, 22 years into the future.

Projected normal year Liberty Utilities water demand through FY 2045 is shown in Table ES.4 as reported in the 2020 UWMP, with Project water demand shown separately. All demands include an estimated 2.57 percent in water loss or non-revenue water consistent with the 2020 UWMP.

Table ES.4
Projected Normal Agency Potable Water Demand (AF)

Demand[1]	2025	2030	2035	2040	2045
Total Demand without Project[2]	11,201	11,203	11,230	11,291	11,351
Project Demand[3]	7	63	95	95	95
Total Demand	11,208	11,266	11,325	11,386	11,446

1) All normal or average year potable demands include 2.57% non-revenue water (water loss) consistent with Liberty Utilities' 2020 UWMP.

2) Normal year potable demand based on Liberty Utilities' 2020 UWMP excluding demand resulting from Project

3) Estimated cumulative Project demand including 2.57% water loss.

ES.2 Water Supply

Liberty Utilities relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. Liberty works together with two primary agencies, Central Basin Municipal Water District (CBMWD) and the Water Replenishment District of Southern California (WRD) to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies provided by Metropolitan Water District of Southern California (Metropolitan) via Liberty's Metropolitan member agency, CBMWD, include the Colorado River and the State Water Project.

Liberty's other main source of water supply is groundwater from the Central Basin managed by WRD. While usage between imported and groundwater supply varies from year to year, over the past dozen years Liberty has averaged an approximately equal percentage of groundwater (44%) and imported water (56%). However, going forward Liberty is projecting to gradually reduce dependence on imported water and use a higher percentage of local groundwater with the mix estimated at just over 60% groundwater by 2045.

Liberty Utilities also takes advantage of a limited amount of recycled water available from the Sanitation Districts of Los Angeles County through CBMWD. In order to make more use of this resource, CBMWD's transmission and distribution system would need to be extended further into Liberty's service area. The current usage of recycled water for direct supply to landscape irrigation is not anticipated to increase as more beneficial indirect use of recycled water for groundwater recharge is being proposed at the regional level.

ES.3 Reliability of Water Supplies

Liberty Utilities' 2020 UWMP analyzes normal year, single-dry year, and multiple-dry (5 consecutive) year conditions as prescribed by UWMP guidelines. Reference is made to Section 7 of Liberty Utilities' 2020 UWMP. This analysis concludes that as a result of Liberty Utilities' diverse water supply portfolio, water supplies may be re-apportioned during these various drought conditions to meet their water demands and provide supply reliability.

The water demands estimated for the Project and other proposed projects within the planning period of this WSA were assumed to be included in the normal year, dry year, and multiple-dry year demands projected for Liberty Utilities through 2045 as estimated in the Liberty Utilities' 2020 UWMP, and were compared with projected available groundwater and imported water supplies based on normal year (2020), single-dry year (2017) and multiple-dry year (2011 to 2015) conditions.

ES.4 Conclusion

The estimated buildout water supply requirement for the Project is projected to be 95 AFY (including water loss). This demand will be phased in between 2025 and 2035. Potable water demand was projected to increase by 343 AFY in the 2020 UWMP over this period and the Project water demand is estimated at approximately 95 AFY (including water loss), which equates to less than 28 percent of the overall increase in total service area potable water demand. The 2020 UWMP allows for a reasonable additional water demand increase beyond those of this Project. Additionally, the 2021 and 2022 water use within Liberty's service area has been more than 10 percent below the 2020 water use. Therefore, it can be reasonably concluded that the Project demands were included in the estimated demand projections in Liberty Utilities' 2020 UWMP. It should also be noted that the Project's estimated demand of approximately 95 AFY (with water loss) would make up only 0.8 percent of the total water demand of 11,706 AFY projected for Year 2045 in Liberty's 2020 UWMP, 22 years into the future.

The information included in this WSA identifies a sufficient and reliable water supply for the Liberty Utilities, now and into the future, including a sufficient water supply for the Project. These supplies are also sufficient to provide for overall service area-wide growth at the rate projected in Liberty Utilities' 2020 UWMP and this WSA.

1 INTRODUCTION

1.1 Proposed Project

The Project is proposed by the CDU/MLK Wellness Collaborative, LLC (CMWC), which is comprised of Charles R. Drew University of Medicine and Science (CDU), Thomas Safran & Associates (TSA) and Century Housing Corporation (CHC). The objective of the Project is to provide educational opportunities and support for the University, affordable housing, recreational facilities, and employment generating opportunities.

The Wellness and Education Campus site encompasses approximately 12.8 acres and is located within the unincorporated portion of Los Angeles County in the Willowbrook community approximately 10 miles south of downtown Los Angeles. The Project boundaries are the I-105 Freeway to the north, E. 118th Street to the south, and generally between Compton Avenue on the west and Holmes Avenue to the east.

The Project is located within the Willowbrook Transit Oriented District Specific Plan area that encompasses 312 acres. The Project Site is part of the Specific Plan identified as the "Northwest Subarea" that may provide a variety of housing options for current and future workers, residents in the area and university/student housing. The Specific Plan also encourages employment generating uses within this subarea "such as medical back office, laboratory facilities, hospital equipment facility, medical or university support businesses, etc. that provide job opportunities for both local residents and others".

Timeframe for development of the Project is based on commencing construction in 2024 with full Project buildout by 2033.

1.2 Water Supply Assessment (WSA) Purpose

The purpose of this WSA is to verify there is sufficient water supply from the water provider, Liberty Utilities Corp. (also referred to as Liberty Utilities or Liberty Utilities – Park Water), for the Project as well as other Liberty Utilities water demands projected through the year 2045. This WSA estimates the additional water demand that would result from the Project land use changes and analyzes the impact it would have on the agency's water supply. The proposed land use changes and commensurate additional water demand requires the preparation of a WSA.

2 LEGISLATION

According to the Guidebook for Implementation of Senate Bill (SB) 610 and SB 221 Water Code Section 10912, a "Project" requiring a WSA is defined by any of the following criteria:

1. A proposed residential development of more than 500 dwelling units (DU)
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space
3. A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
4. A proposed hotel or motel, or both, having more than 500 rooms
5. A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor space
6. A mixed-use project that includes one or more of the projects specified in this subdivision
7. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 DU project

The Project development areas would allow development of up to 559 dwelling units and other ancillary non-residential uses. As such, the Project necessitates the preparation of a WSA because the Plan exceeds a number of minimum development thresholds per SB 610 for both residential and non-residential development.

2.1 SB 610 – Costa – Water Supply Planning

SB 610 was chaptered into law on October 9, 2001. It mandates that a city or county approving certain projects subject to CEQA (i) identify any public water system that may supply water for the project, and (ii) request those public water systems to prepare a specified water supply assessment. The assessment is to include the following:

1. A discussion of whether the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing.
2. The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.
3. A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.
4. A demonstration of water supply entitlements, water rights, or water service contracts by the following means:
    a. Written contracts or other proof of entitlement to an identified water supply.

b. Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
c. Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
d. Any necessary regulatory approvals that are required to be able to convey or deliver the water supply.

5. The identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. If groundwater is included for the supply for a proposed project, the following additional information is required:
   a. Review of any information contained in the Urban Water Management Plan (UWMP) relevant to the identified water supply for the proposed project.
   b. Description of any groundwater basin(s) from which the proposed project will be supplied. Adjudicated basins must have a copy of the court order or decree adopted and a description of the amount of groundwater the public water system has the legal right to pump. For non-adjudicated basins, information on whether the DWR has identified the basin as over-drafted or has projected that the basin will become over-drafted if present management conditions continue, in the most current bulletin of DWR that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft condition.
   c. Description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   d. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin by which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   e. Analysis of the sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied.

The WSA shall be included in any environmental document prepared for the project. The assessment may include an evaluation of any information included in that environmental document. A determination shall be made whether the projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Additionally, SB 610 requires new information to be included as part of an UWMP if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the plan is submitted to the State.

2.2 SB 1262 – Sustainable Groundwater Management Act

State Senate Bill 1262 adopted in September 2016 amends Section 66473.7 of the Government Code to require WSAs to address certain elements regarding groundwater sustainability if the project relies in whole or in part on groundwater as a source of supply.

However, since the applicable groundwater basin has been adjudicated there are no additional requirements over and above those listed above.

3 PROPOSED PROJECT

3.1 Proposed Project Location

The Wellness and Education Campus site encompasses approximately 12.8 acres and is located within the unincorporated portion of Los Angeles County in the Willowbrook community approximately 10 miles south of downtown Los Angeles. The Project boundaries are the 105 Freeway to the north, E. 118th Place to the south, and generally between Compton Avenue on the west and Willowbrook Avenue to the east. The Location Map for the Project is shown on Figure 3.1, which also shows the service area boundaries for Liberty Utilities – Park Water. More detailed Project location and boundaries are shown on the aerial photograph, Figure 3.2.

3.2 Proposed Project Characteristics

"Project," as defined by the CEQA Guidelines, means "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700" (14 Cal. Code of Reg. 15378[a]).

3.2.1 Existing Land Use Within Proposed Project Boundary

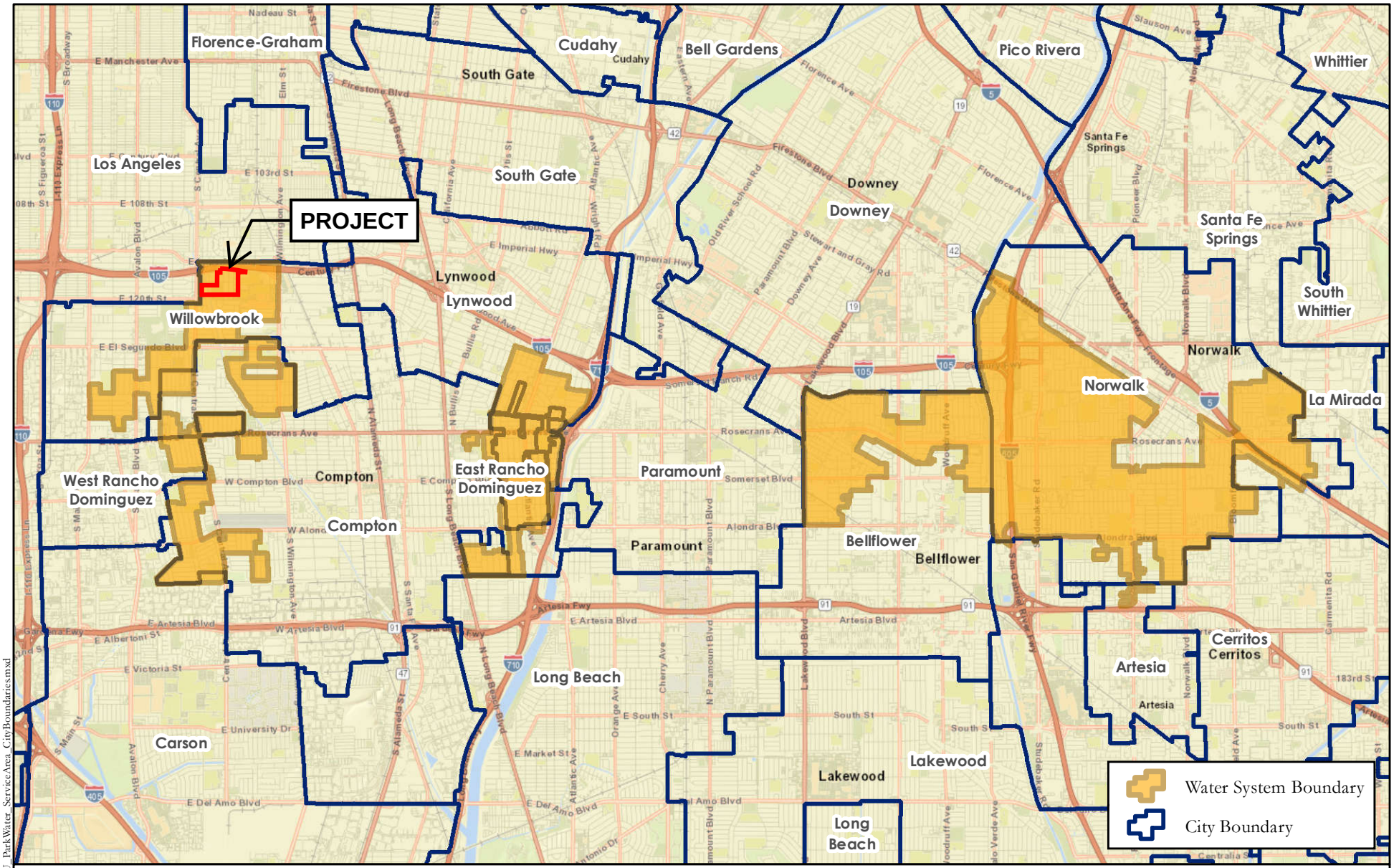
The Project is located within the Willowbrook Transit Oriented District Specific Plan area that encompasses 312 acres. The Project site is part of the Specific Plan identified as the "Northwest Subarea" that may provide a variety of housing options for current and future workers, residents in the area and university/student housing. The Specific Plan also encourages employment generating uses within this subarea "such as medical back office, laboratory facilities, hospital equipment facility, medical or university support businesses, etc. that provide job opportunities for both local residents and others".

Current land use within the Project site is primarily vacant although an elementary school recently occupied most of the site.

3.2.2 Proposed Project Land Use

The Project is proposed by the CDU/MLK Wellness Collaborative, LLC (CMWC), which is comprised of Charles R. Drew University of Medicine and Science (CDU), Thomas Safran & Associates (TSA) and Century Housing Corporation (CHC). The objective of the Project is to provide educational opportunities and support for the University, affordable housing, recreational facilities, and employment generating opportunities.

Figure 3.3 shows the Project site plan with proposed buildings and Table 3.1 summarizes the land use statistics.



Document Path: F:\jn2741\LU_ParkWater_ServiceArea_CityBoundaries.mxd

STETSON ENGINEERS INC.

PSOMAS

PROJECT LOCATION MAP
WITHIN LIBERTY UTILITIES, PARK WATER
SERVICE AREA BOUNDARIES

0 0.5 1 Miles

N

FIGURE 3.1



PSOMAS

Charles R. Drew/Martin Luther King Wellness and Education Campus

Assessor Parcel Nos.: 6149-012-901, 6149-014-900, 6149-014-903, 6149-014-904, 6149-014-906.

FIGURE 3.2
PROJECT BOUNDARY

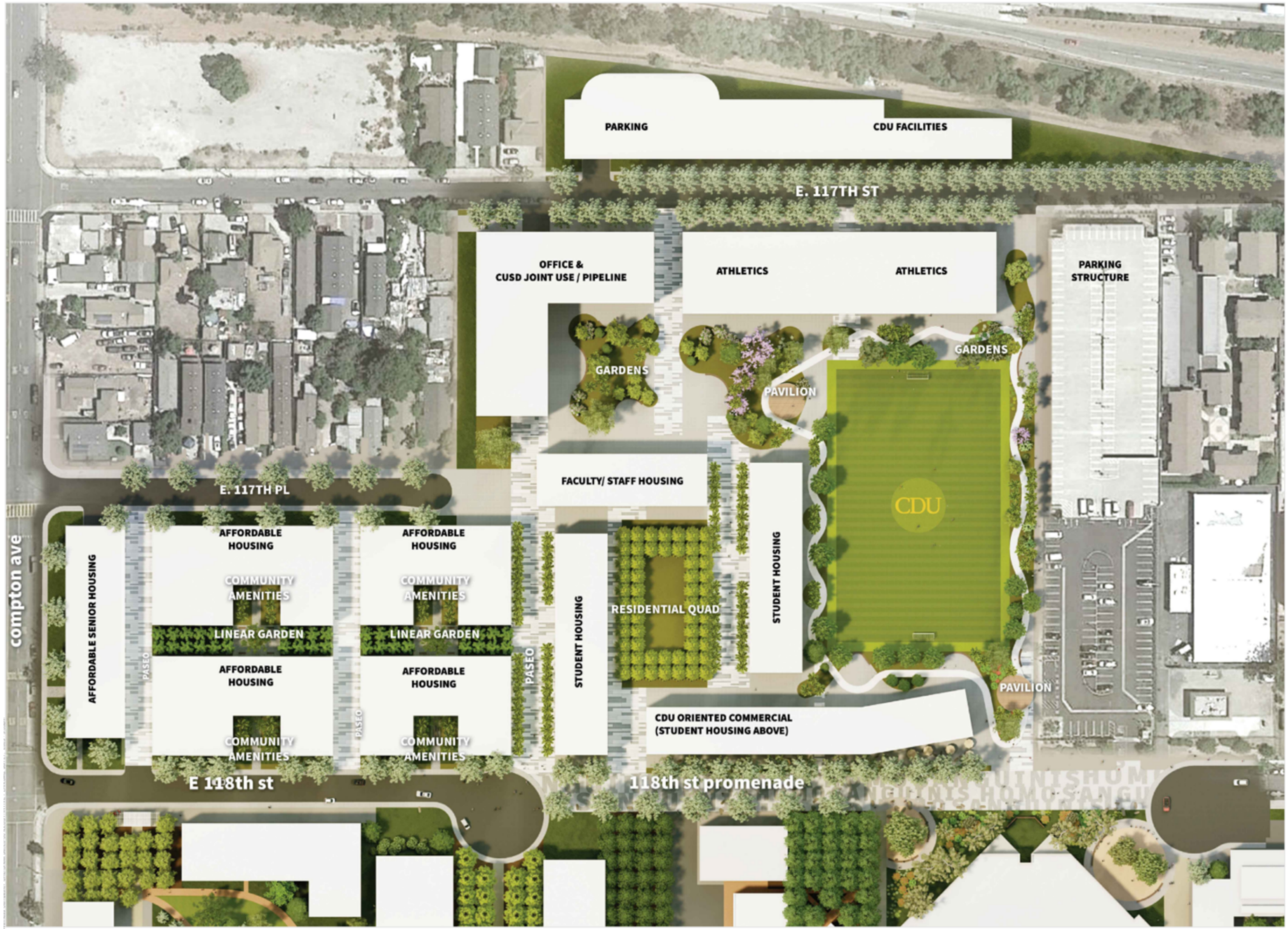


Figure 3.3
Project Site Plan

NORTH

Table 3.1
Proposed Land Use
Charles R. Drew/Martin Luther King Wellness and Education Campus

AFFORDABLE & SENIOR HOUSING				
Affordable Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #1	47	22	12	13
Building #2	47	22	12	13
Affordable & Senior Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #3	53	24	16	13
Building #4	53	24	16	13
Building #5 (Senior)	54	53	0	1
STUDENT & WORKFORCE HOUSING				
Student Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR / 1B**	**3BR / 2B**
Building #1 (Mixed Apts)	72	35	24	13
Building #2 (Mixed Apts)	70	40	20	10
Building #3 (Suites)	108	12	96	0
Community Space	5,000	sq. ft.		
Retail (University oriented)	10,270	sq. ft.		
Workforce Housing (Dwelling Units)				
	Total Unit	**1BR / 1B**	**2BR**	**3BR / 2B**
Building #4 (Mixed Apts)	55	30	15	10
Total Dwelling Units	**559**			
ATHLETICS				
Athletics				
Gym/Pool	43,100	sq. ft.		
Athletic Field	54,000	sq. ft.		
Office Building	116,000	sq. ft.		
Community Use	5,000	sq. ft.		
Facilities Services	11,500	sq. ft.		

3.2.3 Proposed Project Phasing

The Project is proposed to be phased over an approximate nine-year timeframe with construction (demolition and site clearing) in the Spring of 2024 and completion of the last structure in the Summer of 2033. Estimated Project phasing is shown on Table 3.2.

Table 3.2
Estimated Project Phasing

Phase	Construction Start	Construction End
Demolition/Site Clearing	March 2024	December 2024
Athletics Field (U5)	December 2024	December 2025
Office Bldg. (U7)	June 2025	June 2027
Affordable Housing Bldg. (A1)	January 2026	January 2028
Affordable Housing Bldg. (A2)	January 2026	January 2028
Student Housing Bldg. (U1)	June 2026	June 2028
Parking Structure (U8)	March 2027	June 2028
Affordable Housing Bldg. (A3)	June 2027	June 2029
Affordable Housing Bldg. (A4)	June 2027	June 2029
Student Housing Bldg. (U2)	June 2028	June 2030
Athletics Bldg. (U6)	October 2028	October 2030
Senior Affordable Housing Bldg. (A5)	June 2029	June 2031
Student Housing Bldg. (U3)	June 2029	June 2030
Faculty/Staff Housing Bldg. (U4)	June 2031	June 2033

3.3 Project Water Demand

3.3.1 Water Demand for Existing Land Uses

FY 2020 water demand for the existing land use for the Project would have been accounted for in the 2020 UWMP. However, those demands should be negligible as the site was vacant or abandoned at that time.

3.3.2 Estimated Project Water Demand

The most accurate method of estimating water demands is based on per capita demands for indoor water use and separate estimates of landscape irrigation demands for outdoor use. Since we have detailed Project statistics in terms of dwelling units for residential uses and building square footage for non-residential use, we will estimate the population for each residential product type and employment for the non-residential use and develop indoor water demand based on industry standard per capita factors detailed on the following pages. We also have landscape area takeoffs from preliminary landscape plans and can use that information to generate outdoor water demands.

Estimated buildout residential population by product type is shown in Table 3.3 and employment population in terms of full-time equivalent employees (FTE) is shown in Table 3.4.

Table 3.3
Estimated Project Residential Population

Housing Type (Building)	Persons/Dwelling Unit			Total Population
	1BR	2BR	3BR	
Affordable Housing (Bldg. #1 - #4)	1.5	3.5	5.5	620
Senior Housing (Bldg. #5)	1.5	1.5	1.5	81
Student Housing (Bldg. #1 & #2)	1	2	3	232
Student Housing (Bldg. #3)	2	4	6	408
Faculty/Staff Housing (Bldg. #5)	1	2	3	90
Total				**1,431**

Table 3.4
Estimated Project Employment

Full-Time Equivalent Employees (FTE)		
	FTE	**Comment**
Office Building	105.0	100 in Office plus 5 for Operations
Gym and Athletic Field	12.5	
Parking Garage	2.5	
Grounds	7.5	Landscape and Security
All Housing Buildings	22.5	2.5 FTE per Building for 9 Total Buildings
Total	**150.0**	

Landscape area square footages are taken from preliminary landscape plans and irrigation water demands can be estimated by using the application rate for grass for the Athletic Field and the Maximum Applied Water Allowance (MAWA) from the State of California Model Water Efficient Landscape Ordinance (MWELO) for the remaining landscaped area. Per MWELO, the Athletic Field is exempt from MAWA requirements, so it is calculated separately, and a MAWA factor of 0.55 is used for the remaining landscaped area based on the development being predominantly residential and because it is slightly more conservative than the 0.45 factor required for non-residential development. An Evapotranspiration rate of 50.1 inches per year is used per the appendices from the State MWELO for the Los Angeles County area. Other factors used to generate the irrigation demand for the Athletic Field are shown at the bottom of Table 3.5, showing the estimated annual landscape irrigation use for the Project.

Table 3.5
Estimated Project Landscape Irrigation Demand

	Total	Athletic Field	Remaining
Landscape Area (sf)	195,737	64,000	131,737
MAWA			
gal/year			2,250,608
gpd			6,166
Athletic Field (MAWA Exempt)			
gal/year		2,120,499	
gpd		5,810	
Total Project Landscape Irrigation Use			
gal/yr	4,371,107		
gpd	11,976		
Acre-Feet/yr	**13.4**		
Los Angeles ETo (in/yr)	50.1		
MAWA Factor	0.55		
Athletic Field Plant Factor (PF)	0.80		
Spray Irrigation Efficiency (IE)	0.75		

Indoor water demand broken down by residential population and employment is projected based on an indoor per capita demand factor of 47.0 gallons per capita daily (GPCD) based on the State's water use standard that is currently set at 55 GPCD but set to decrease to 47.0 GPCD in January 2025, and to 42.0 GPCD beginning in 2030. None of the residential development will be occupied by 2025 and most of the residential buildings will be occupied by 2030 so the more conservative factor of 47.0 GPCD is used. An industry standard of 20 GPCD per FTE is used to generate water demand for employment within the Project. As shown in Table 3.6 total indoor water demand is estimated at 78.9 AFY, including swimming pool makeup water. Adding landscape irrigation water demand gives a total Project water demand of 92.4 AFY.

Table 3.6
Estimated Buildout Project Water Demands

		Area (s.f.)	Demand Factor (GPCD)	Total Water Use	
				GPD	AFY
Estimated Residential Population	1,431		47.0	67,257	75.3
Estimated Campus Employment	150		20	3,000	3.4
Swimming Pool[1]		625	0.35	219	0.2
Subtotal Indoor				70,476	78.9
Athletic Field[2]		64,000		5,810	6.5
Remaining Landscaping[2]		131,737		6,166	6.9
Subtotal Outdoor				11,976	13.4
Total Water Use[3]				**82,451**	**92.4**

1) Swimming Pool Makeup Water (Demand Factor is gpd/s.f. surface area)
2) See Table 3.5 for detailed irrigation calculations
3) Not including water loss

Based on the proposed phasing shown in Table 3.2, the phased water demand calculations are detailed in Table 3.7 and shown in five-year increments consistent with those required to be shown in UWMP format. The summary of these phased demand estimates is shown at the bottom of the table. All water agencies experience water loss within their system including such things as pipeline leaks, meter inaccuracies, water theft, hydrant testing, etc., and that is included in the summary using the same percentage from Liberty Utilities' 2020 UWMP.

Table 3.7
Estimated Project Phasing of Water Demand

	Pop.	Emp.	Factor	Water Use	
				gpd	AF
By 2025					
Athletic Field/Gym				5,810	6.5
Employment		20	20	400	0.4
Subtotal				6,210	7.0
By 2030					
Affordable Housing (#1-4)	620		47	29,140	32.6
Student Housing (#1-2)	232		47	10,904	12.2
Parking Structure (U8)	NA		-	-	-
Employment		122.5	20	2,450	2.7
Remaining Landscaping				6,166	6.9
Swimming Pool				219	0.2
Subtotal				48,879	54.8
By 2035					
Senior Affordable Housing (#5)	81		47	3,807	4.3
Student Housing (#3)	408		47	19,176	21.5
Faculty/Staff Housing (U4)	90		47	4,230	4.7
Employment		7.5	20	150	0.2
Subtotal				27,363	30.7
Total	**1,431**	**150**		**82,451**	**92.4**

Project Water Use Summary (AF)

	2025	2030	2035
Incremental Project Water Use	7.0	54.8	30.7
Cumulative Project Water Use	7.0	61.7	92.4
Water Use with Water Loss	7.1	63.3	94.7

4 LIBERTY UTILITIES – PARK WATER SYSTEM

4.1 Liberty Utilities – Park Water Service Area Characteristics

The water service area was created in 1937 and originally named Lost Nietos Water Company. The Liberty Utilities Company acquired Los Nietos Water Company and renamed it Liberty Utilities – Park Water in January 2016. Liberty Utilities – Park Water Service Area is made up of three separate areas as previously shown in Figure 3.1.

The Project is located on the northern edge of the westernmost area that includes portions of the City of Carson and unincorporated portions of Los Angeles County (Compton System). The central portion of the service area includes portions of the cities of Lynwood and Compton and unincorporated portions of Los Angeles County (Lynwood System). And the eastern service area includes portions of the cities of Bellflower, Norwalk, Artesia and Santa Fe Springs and unincorporated portions of Los Angeles County (Bellflower/Norwalk System).

According to the 2020 UWMP, the Liberty Utilities – Park Water service area population was 132,691 in 2020 and is estimated to increase to 136,245 by 2045. These population figures were obtained from Southern California Association of Government (SCAG). The data provided by SCAG was based on "The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the SCAG", dated September 2020, and incorporates demographic trends, existing land use, general plan land use policies, and input and projections through the year 2045 from the Department of Finance (DOF) and the U.S. Census Bureau for counties, cities and unincorporated areas within Southern California.

4.2 Liberty Utilities Water Demands

Southern California's urban water demand has been largely shaped by the efforts to comply with SBx7-7. This law required all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent water demand reduction (from a historical baseline) by 2020. Liberty Utilities – Park Water has been actively engaged in efforts to reduce water use in its service area to meet the final 2020 water use target. As detailed in their 2020 UWMP, the confirmed 2020 SBx7-7 Target for Liberty Utilities – Park Water was 142 GPCD and the actual 2020 water use achieved was 74 GPCD, demonstrating compliance with this requirement.

Historic water supply by source for the five years up to and including 2020 from Section 6.1 of Liberty Utilities' 2020 UWMP, plus use for the most current two years from Liberty Utilities staff, is shown in Table 4.1. Total water use has remained constant with minor variations seemingly due to weather and drought conservation requirements more than population growth. Overall, it appears that active and passive conservation has cancelled out any increase due to development.

Table 4.1
Historical Water Demand

Calendar Year	System Supply Sources (AF)				Total
	Potable Water			Recycled Water	
	Central Basin Groundwater	Purchased Water Central Basin MWD	Subtotal		
2016	3,970	5,389	9,359	246	9,605
2017	5,038	4,518	9,556	139	9,695
2018	6,841	2,979	9,820	320	10,140
2019	7,173	1,225	8,398	241	8,639
2020	5,782	5,190	10,972	252	11,224
2021	4,937	5,234	10,171	273	10,444
2022	4,629	4,693	9,322	301	9,623

Liberty Utilities – Park Water water demand was developed and projected in their 2020 UWMP. Future water demands were projected based on land use, population, and economic growth. Baseline conservation was assumed and includes the implementation of future passive measures affecting new developments, including the Model Water Efficient Landscape, plumbing code efficiencies for toilets, and expected plumbing code for high-efficiency clothes washers. It also assumes the implementation of future active measures for existing customers and assuming the implementation of Metropolitan incentive programs at historical annual levels seen in the region.

Water demands projected in the Liberty Utilities – Park Water 2020 UWMP for the years 2025 through 2045 are shown in Table 4.2. Section 3 of this WSA develops the demand estimates for the Project of 92.4 AFY (94.7 AFY including water loss). It is not clearly apparent from the UWMP whether these demands for the Project were specifically included in the demand projections in the 2020 UWMP. The Project phasing is based on a build-out by 2035. The 2020 UWMP estimated an increase in population within Liberty's total service area between 2020 and 2035 of 2,128 (Table 3-1 of Liberty 2020 UWMP). The Project is conservatively estimated to have a build-out residential population of 1,431 (high estimate), which would equate to approximately 67 percent of the total population growth shown in the UWMP for this same period. Potable water demand was projected to increase by 343 AFY in the 2020 UWMP over this period and the Project water demand is estimated at approximately 95 AFY (including water loss), which equates to less than 28 percent of the overall increase in total service area potable water demand. This WSA is evaluating the ability of the agency to reliably supply water to the Project and the other demands within its service area over the next twenty years (and not estimated population increase). The 2020 UWMP allows for a reasonable additional water demand increase beyond those of this Project. Additionally, the 2021 and 2022 water use within Liberty's service area has been 7 and 15 percent below the 2020 water use, respectively. Therefore, it can be reasonably concluded that the Project demands were included in the estimated demand projections in Liberty Utilities' 2020 UWMP and will not need to be added to the projections included in the 2020 UWMP to evaluate water supply reliability. It should also be noted that the Project's estimated demand of approximately 95 AFY (with water loss) would make up only 0.8 percent of the total water demand of 11,706 AFY projected for Year 2045 in Liberty's 2020 UWMP, 22 years into the future.

The potable water demand for the Project by phase from Table 3.7 and totaling 95 AFY (including water loss) is therefore subtracted from the potable demands projected in the 2020 UWMP and listed on a separate line in Table 4.2, which shows the projected water demand for the Project and the Liberty Utilities – Park Water service area, with the totals matching the 2020 UWMP totals.

Table 4.2
Projected Liberty Utilities – Park Water and Project Potable Water Demand (AF)

Demand[1]	2025	2030	2035	2040	2045
Total Demand without Project[2]	11,201	11,203	11,230	11,291	11,351
Project Demand[3]	7	63	95	95	95
Total Demand	11,208	11,266	11,325	11,386	11,446

1) All normal or average year potable demands include 2.57% non-revenue water (water loss) consistent with Agency's 2020 UWMP.

2) Normal year potable demand based on Agency's 2020 UWMP excluding demand resulting from Project.

3) Estimated cumulative Project demand including 2.57% water loss.

4.3 Liberty Utilities Water Supply

Liberty Utilities – Park Water relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. Liberty works together with two primary agencies, Central Basin Municipal Water District (CBMWD) and the Water Replenishment District of Southern California (WRD) to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies provided by Metropolitan Water District of Southern California (Metropolitan) via Liberty's Metropolitan member agency, CBMWD, include the Colorado River and the State Water Project.

Liberty's other main source of water supply is groundwater from the Central Basin managed by WRD. While usage between imported and groundwater supply varies from year to year, over the past dozen years Liberty has averaged an approximately equal percentage of groundwater (44%) and imported water (56%). However, going forward Liberty is projecting to gradual reduce dependence on imported water and use a higher percentage of local groundwater with the mix estimated at just over 60% groundwater by 2045.

Liberty Utilities also takes advantage of a limited amount of recycled water available from the Sanitation Districts of Los Angeles County through CBMWD. In order to make more use of this resource, CBMWD's transmission and distribution system would need to be extended further into Liberty's service areas. The current usage of recycled water for direct supply to landscape irrigation is not anticipated to increase as more beneficial indirect use of recycled water for groundwater recharge is being proposed at the regional level.

4.3.1 Groundwater Supply

The information in this section is intended to furnish the information required by Water Code section 10910(f).

Local groundwater has been the least costly and most reliable source of supply for the Liberty Utilities. Liberty Utilities has historically relied on the Central Basin for nearly half of its supply over the previous ten years.

Basin Characteristics

The Central Basin is a subbasin of the Coastal Plain of Los Angeles Groundwater Basin pursuant to Department of Water Resources (DWR) Bulletin 118, Basin Number 4-11.04. Pursuant to the Sustainable Groundwater Management Act of 2014 (SGMA), the Central Basin was named as an adjudicated groundwater basin and is exempt from the requirements of developing a Groundwater Sustainability Plan (GSP) and subsequently was designated a very-low-priority basin in DWR's 2019 SGMA Basin Prioritization report. In compliance with SGMA, the Central Basin Watermaster (which is the Water Replenishment District of Southern California, or WRD) submits its Annual Report to DWR.

Central Basin Adjudication and Management

On January 2, 1962, the Central and West Basin Water Replenishment District (now the WRD) filed Case No. 786,656 in the Superior Court of Los Angeles, naming more than 700 parties as defendants. It sought to adjudicate water rights of groundwater and regulate pumping from the Central Basin. Since then, an agreement was approved, a stipulated judgement drafted, the case was tried in court and a final Judgement was signed on October 11, 1965. The Judgement was amended three times and in 2013 the "Third Amended" Central Basin Judgement confirmed the retirement of the DWR as the Watermaster and established three separate bodies to assist the Court in the administration and enforcement of the provisions and stipulations of the Judgement. Details of these proceedings can be found in Liberty's 2020 UWMP, Section 6.

The Court approved 2013 Judgement amendments also implemented a water storage program. The storage program allows parties to store up to 200 percent of their Allowed Pumping Allocation, if space is available, to convert unused Allowed Pumping Allocation to stored water, and allows for transfer of water between Central Basin and West Basin (i.e., increasing production in Central Basin while another party decreases production in West Basin by the corresponding amount).

Under the Judgement, water rights are fixed and do not vary year to year. Water producers cannot exceed their water rights by more than 20 percent or 20 AF, whichever is greater, in any year and an adjustment is made the following year. Similar percentage and volume limits are also set for carry over of water rights for use in the following year. Reference is made to Liberty's 2020 UWMP, Section 6, for further details of these programs and limits.

The Central Basin covers approximately 270 square miles and is bounded on the north by the Hollywood Basin and Elysian, Repetto, Merced, and Puente Hills; to the east by the Los Angeles County/Orange County line; and to the south and west by the NIU, a series of discontinuous faults and folds that form a prominent line of northwest trending hills including the Baldwin Hills, Dominguez Hills, and Signal Hill. DWR divided the Central Basin into four sections: the Los

Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area. Pursuant to DWR Bulletin 118 (for Basin Number 4-11.04), the total storage capacity of the Central Basin is estimated at approximately 13.8 million acre-feet (MAF).

The aquifers of the Central Basin receive their water supply primarily from the surface and subsurface inflow of water from the San Gabriel Valley. The water originates as rainfall in the San Gabriel Mountains, the runoff from which is conveyed to the Los Angeles River, the Rio Hondo, and the San Gabriel River. The Los Angeles River enters Central Basin through the Los Angeles Narrows, crosses the Los Angeles Forebay Area, and proceeds south across Central Basin, exiting Central Basin through the Dominguez Gap in West Basin. The Rio Hondo enters Central Basin at Whittier Narrows parallel to the San Gabriel River, proceeds southwesterly across the Montebello Forebay Area and joins the Los Angeles River midway across the Basin. The San Gabriel River also enters Central Basin through the Whittier Narrows, crosses the Montebello Forebay, and runs south to the Pacific Ocean near Long Beach at the Orange County line.

As the Rio Hondo and San Gabriel flow through the Upper San Gabriel Valley toward Whittier Narrows, much of their flow percolates into the Main Basin. This water crosses the Whittier Narrows and enters Central Basin as subsurface flow into the aquifers of Central Basin. At the same time, the surface flows of the Rio Hondo and the San Gabriel River percolate downward into the aquifers of Central Basin in the Montebello Forebay. In the Montebello Forebay, the underground aquifers merge and are unconfined, and thus capable of receiving large quantities of water from percolation through the sand and gravel surface of the forebay area.

The Los Angeles Forebay area is also favorably situated for percolation from the flows of the Los Angeles River, but the Los Angeles Forebay has been largely eliminated as a source of freshwater replenishment to Central Basin, due to lining of the Los Angeles River channel and the imperious surface in the area. In the Montebello Forebay area, by contrast, flood flows have been largely controlled through the construction of the Whittier Narrows Dam, and the river channels have not been lined in the are so percolation still occurs.

Groundwater in the Central Basin provides a substantial portion of the water supply needed by residents and industries in the overlying area. Groundwater occurs in the pore spaces of the sediments in the Basin. The major aquifers identified in Central Basin include the following, from shallowest to deepest: 1) the Gaspur and semi-perched aquifers of the Holocene Alluvium Formation; 2) the Exposition, Artesia, Gage, and Gardena aquifers of the Upper Pleistocene Lakewood Formation; 3) the Hollydale, Jefferson, Lynwood, and Silverado aquifers of the Lower Pleistocene Upper San Pedro Formation; and 4) the Sunnyside Aquifer of the Lower Pleistocene Lower San Pedro Formation.

WRD's Leo J. Vander Lans Advanced Water Treatment Facility (LVL) was constructed in 2003 and expanded in 2014. The LVL is located in the City of Long Beach and currently produces about 8 MGD of advanced treated water for injection at the Alamitos Barrier in Long Beach. The LVL also injects tertiary treated recycled water from Sanitation Districts of Los Angeles County's Long Beach Water Reclamation Plant. By infecting the LVL's advanced treated water and effluent from the Long Beach Water Reclamation Plant, groundwater supply is replenished and seawater intrusion is prevented.

The WRD Board of Directors established the Water Independence Now (WIN) program in 2003 to protect the security of the region's groundwater supplies. The WIN program is comprised of various projects that include expansions to existing water treatment facilities, spreading activities, and stormwater capture. The largest component of the WIN program is the Albert Robles Center for Water Recycling & Environmental Learning (formerly the Groundwater Reliability Improvement Program), which was completed in 2019. The purpose of the Albert Robles Center is to reduce demand for imported water at the Rio Hondo and San Gabriel Coastal Spreading Grounds. The Center includes ultrafiltration, reverse osmosis, and ultraviolet disinfection and advanced oxidation to treat recycled water by significantly reducing the total dissolved solids concentration.

Groundwater quality is monitored by WRD. Groundwater in the Central Basin is currently contaminated with natural metals such as arsenic, iron and manganese, Volatile Organic Chemicals (VOCs), including trichloroethylene (TCE) and perchloroethylene (PCE), 1,4-Dioxane, Perchlorate, and Per- and Poly-Fluoroalkyl Substances (PFAS). In addition, TDS concentrations exceed drinking water quality standards. Wellhead treatment is necessary in these areas to allow delivery of the groundwater for potable purposes.

As previously discussed, DWR divided the Central Basin into four sections: Below is a discussion of groundwater level changes in each of these pursuant to WRD's 2023 Engineering Survey and Report (updated from the 2020 Report included in Liberty Utilities' 2020 UWMP.

- In the Los Angeles Forebay, the water level high was observed in 1938 with an elevation of approximately 70 feet above mean sea level (msl) and by 1962, the water level had fallen by 180 feet to an elevation of 109 feet below msl due to over pumping and lack of recharge. Water levels have improved since then due to pumping rights adjudication and managed aquifer recharge. At the end of water year (WY) 2021/22, groundwater levels were at an elevation of 20.65 feet below msl, which is 2.95 feet higher from the previous WY. Overall, groundwater elevations increased across the Los Angeles Forebay.
- In the Montebello Forebay, the water level high was observed in 1942 with an elevation of approximately 137.8 feet above msl and by 1958, (key well in central portion of forebay). The levels had fallen by 117 feet to an elevation of 20.9 feet above msl due to over pumping and lack of recharge. Water levels have improved since then due to pumping rights adjudication and managed aquifer recharge. At the end of WY 2021/22, groundwater levels in this portion of the forebay were at an elevation of 59.55 feet above msl and were 3.85 feet lower than the previous WY.
- In the Pressure Area of the Central Basin, groundwater highs were observed in 1935 at about 10 feet above msl when they began to continually drop over 110 feet until their lows in 1961 of about 120 feet below msl due to the over-pumping and insufficient natural recharge. Groundwater levels recovered substantially during the early 1960s as a result of replenishment operations and reduced pumping. Between 1995 and 2007 there were 100-foot swings in water levels each year between winter and summer caused by pumping pattern changes by some of the Central Basin producers who operate with more groundwater in the summer months and less groundwater in the winter months, At the end of WY 2021/22, groundwater levels in well 906D were at an elevation of 56.57 ft below msl and were 17.13 feet higher than the previous WY. Water levels in well 460K were at an elevation of 77.14 ft below msl and were 11.16 feet higher than the previous WY.

- In the Whittier Area, which is in the northeastern-most portion of the Central Basin and historically has not been used for significant water supplies due to poor natural water quality conditions (high TDS concentrations) and low production rates. Some minor pumping does occur towards the western end. Because of this, WRD does not maintain long term hydrographs for this area but does track current groundwater levels from its recently constructed monitoring wells.

4.3.2 Imported Water

The information in this section is intended to provide the information required by Water Code section 10910(d).

Liberty Utilities supplements its local groundwater with imported water purchased from Metropolitan through its Metropolitan member agency, CBMWD. Imported water has historically represented just over half of the Liberty's total water supply over the past ten years. Metropolitan's principal sources of water are the Colorado River via the Colorado River Aqueduct (CRA) and the Lake Oroville watershed in northern California through the State Water Project (SWP). The raw water obtained from these sources is, for CBMWD's sub-agencies, primarily treated at the Weymouth Filtration Plant located in the City of La Verne. Liberty Utilities maintains six connections to the Metropolitan feeders, with individual turnout capacities ranging from 10 to 15 cubic feet per second (cfs) each.

Liberty Utilities' treated imported water supplies from Metropolitan, through CBMWD, may be impacted during a multi-year drought or other conditions which limit Metropolitan from delivering sufficient water supplies to all of its member agencies, and consequently to Liberty Utilities. In anticipation of such a reduction in supplies, Metropolitan developed a Water Supply Allocation Plan (WSAP), which is briefly described below. The WSAP provides a means of equitably providing reduced water supplies to each of Metropolitan's member agencies for up to 10 levels of reduction representing up to a 50 percent reduction.

During calendar year 2007, critically dry conditions impacted Metropolitan's water supply sources. In addition, a ruling in the Federal Courts in August of that year provided protective measures for the Delta Smelt (and subsequently other aquatic species) in the Sacramento-San Joaquin River Delta resulting in restrictions on the availability of SWP water. As a result, Metropolitan adopted a WSAP in February 2008 to allocate available water supplies to its member agencies. Metropolitan revised their WSAP in December 2014. The current WSAP establishes ten different shortage levels and a corresponding Allocation to each member agency. Based on the shortage levels established by Metropolitan, the WSAP provides separate reduced Allocation to a member agency for its (a) municipal and industrial (M&I) retail demand, and (b) replenishment demand. The WSAP formula considers historical local water production, full service treated water deliveries, agricultural deliveries and water conservation efforts when calculating each member agency's Allocation.

Depending on Metropolitan's available supply, Metropolitan's Board of Directors can establish a specific WSAP shortage level. The shortage level causes a regional reduction and calculates an Allocation for each of its member agencies. Additional information about Metropolitan's WASP is provided in Metropolitan's 2020 UWMP, which is incorporated by reference.

In response to a fourth consecutive year of below average rainfall and critically dry conditions, Metropolitan declared a WSAP Level 3, which corresponds to a regional 15 percent reduction, for fiscal year 2015-16. That was only the second time Metropolitan implemented a WSAP and it was rescinded the following year. The WSAP has not been put into effect since.

4.3.3 Recycled Water Supply

Wastewater generated within Liberty Utilities' service area is collected by local sewer agencies and then regional LACSD trunk sewers and treated by LACSD. The regional trunk sewer lines deliver wastewater to the Los Coyotes Water Reclamation Plant (LCWRP) and Joint Water Pollution Control Plant (JWPCP) owned by LACSD. CBMWD then purchases recycled water from LACSD and distributes it throughout its service area, including Liberty Utilities' service area. Liberty Utilities participates in CBMWD's regional water recycling program, which includes two major distribution systems, the E. Thornton Ibbetson Century Water Recycling Project and the Esteban Torres Rio Hondo Water Recycling Project.

Currently, Liberty Utilities delivers recycled water provided by and purchased from CBMWD. CBMWD purchases tertiary treated recycled water from LACSD. Liberty Utilities uses recycled water to augment its groundwater and imported water supplies for landscape and golf course irrigation within its service area.

Liberty Utilities works collaboratively with CBMWD to encourage and optimize future recycled water use within its service area. Through CBMWD's marketing efforts, recycled water customers have expanded from traditional irrigation uses such as golf courses and parks to unconventional and industrial uses. Additionally, Liberty Utilities provides incentives by setting recycled water rates below potable water rates to encourage recycled water user. CBMWD also advances funds for customer's retrofit expenses and are subsequently reimbursed through monthly payments.

In order to make more use of this resource, CBMWD's transmission and distribution system would need to be extended further into Liberty Utilities' service area. While this may happen in the future, a substantial increase in use of recycled water within Liberty Utilities' service area is not being projected to be conservative.

4.3.4 Projected Liberty Utilities Water Supply

A summary of the current and planned sources of water for Liberty Utilities during a normal year is shown in Table 4.4.

Table 4.4
Projected Normal Year Water Supply Sources

Calendar Year	System Supply Sources (AF)				
	Potable Water			Recycled Water	Total
	Central Basin Groundwater	Purchased Water Central Basin MWD	Subtotal		
2020	5,782	5,190	10,972	252	11,224
2021	4,937	5,234	10,171	273	10,444
2022	4,629	4,693	9,322	301	9,623
2025	6,000	5,208	11,208	260	11,468
2030	6,250	5,016	11,266	260	11,526
2035	6,500	4,825	11,325	260	11,585
2040	6,750	4,636	11,386	260	11,646
2045	7,000	4,446	11,446	260	11,706

2020 and 2025 through 2045 are from Table6-8 and 6-9 of Liberty Utilities – Park Water 2020 UWMP. 2021 and 2022 are from Liberty Utilities production records obtained from staff.

The projected supply was developed in coordination with CBMWD, WRD, and Metropolitan.

5 RELIABILITY OF WATER SUPPLIES

This section provides a description of Metropolitan's, CBMWD's, WRD's, and Liberty Utilities' efforts in securing adequate water supply, as well as the reliability of regional and local normal, single-dry year, and multiple-dry year water supplies.

The Southern California region faces a challenge in satisfying its water requirements and securing firm water supplies. Increased environmental regulations and the competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies.

Reliability is a measure of a water system's ability to manage water shortages. Reliability planning requires information about the following: (1) expected frequency and severity of shortages; (2) how additional water management measures are likely to affect the frequency and severity of shortages; and (3) how available contingency measures can reduce the impact of shortages when they occur. The reliability of Liberty Utilities' water supply is currently dependent on the reliability of both groundwater and imported water supplies, which are managed and delivered by WRD and CBMWD/Metropolitan, respectively. Despite the ongoing water supply challenges within the region, the goal and statutory mission of these agencies are to identify and develop projects to meet the water demands in the region. Sections 5.1 and 5.2 discuss these agencies, their roles in water supply reliability, and the near and long-term efforts they are involved with to ensure future reliability of water supplies to the Liberty Utilities and the region as a whole.

State funding has been made available, through California voters' approval, to increase reliability of state water supplies. In March 2000, California voters approved Proposition 13, which authorized the State to issue $1.97 billion of its general obligation bonds for water projects. Additionally, California voters approved Proposition 50 in November 2002 and Proposition 84 in November 2006, which authorized the issuance by the State of $3.4 billion and $5.4 billion, respectively, of its general obligation bonds for water projects. Types of water projects that were eligible for funding under Propositions 13, 50, and 84 of these programs included water conservation, groundwater storage, water treatment, water quality, water security and Colorado River water management projects, many of which are within the scope of the California Plan. The 2014 Water Bond, through Proposition 1, provides funding to implement the three broad objectives of the California Water Action Plan:

1. More reliable water supplies
2. Restoration of important species and habitat
3. A more resilient, sustainably managed water resources system

It includes allocations of $1,495 million administered by the California Department of Fish and Wildlife under Chapter 6 for watershed restoration and Delta water quality and ecosystem restoration grants. Proposition 1 also includes the following funding administered by DWR: $810 million for regional water reliability under Chapter 7 including integrated regional water management (IRWM) and water conservation and water use efficiency (WUE), $725 million for water recycling under Chapter 9 including desalination and advanced treatment technology, $900 million for groundwater sustainability under Chapter 10 including local plans and projects to

manage groundwater, $395 million for flood management under Chapter 11 including reducing risk of levee failure and flooding in the Delta and statewide flood management. Additionally, the 2015 Agricultural Water Use Efficiency Grants provide a funding limit of $30 million and CalConserve water use efficiency revolving fund loans provide another $10 million limit. These funding levels include funds appropriated in a current or prior year budget.

5.1 Metropolitan Water District Supply Reliability

Metropolitan was formed in the late 1920's. Collectively, charter members recognized the limited water supplies available within the region, and realized that continued prosperity and economic development of Southern California depended upon the acquisition and careful management of an adequate supplemental water supply. This foresight made the continued development of Southern California possible.

Metropolitan acquires water from Northern California via the State Water Project (SWP) and from the Colorado River to supply water to most of Southern California. As a wholesaler, Metropolitan has no retail customers, and distributes treated and untreated water directly to its 26 member agencies. One such member agency is the CBMWD, who is Liberty Utilities' member agency.

Through the Integrated Resources Plan and subsequent updates including the 2015 update, Metropolitan has worked toward identifying and developing water supplies to provide 100 percent reliability. Due to competing needs and uses for all the water sources and regional water operational issues, Metropolitan has undertaken a number of planning processes: the IRP Process, the WSDM Plan, the Urban Water Management Plan, and the WSAP. Combined, these documents provide a framework and guidelines for optimum water planning into the future.

The reliability and operational issues related to Metropolitan's various sources of supply are discussed in detail by major source in the subsequent sections.

5.1.1 State Water Project

The SWP is owned and operated by the California Department of Water Resources (DWR). The reliability of the SWP impacts Metropolitan's member agencies' ability to plan for future growth and supply. On an annual basis, each of the 29 SWP contractors, including Metropolitan, request an amount of SWP water based on their anticipated yearly demand. In most cases, Metropolitan's requested supply is equivalent to its full Table A Amount,[1] currently at 1,911,500 AFY. The full Table A amount is defined as the maximum amount of imported water to be delivered and is specified in the contract between the DWR and the contractor. After receiving the requests, DWR assesses the amount of water supply available based on precipitation, snow pack on northern

[1] Generally, two types of deliveries are assumed for all SWP contractors: Table A and Article 21. Table A Amount is the contractual amount of allocated SWP supply, set by percentage amount annually by DWR; it is scheduled and uninterruptible. Article 21 water refers to the SWP contract provision defining this supply as water that may be made available by DWR when excess flows area available in the Delta (i.e., Delta outflow requirements have been met, SWP storage south of the Delta is full, and conveyance capacity is available beyond that being used for SWP operations and delivery of allocated and scheduled Table A supplies). Article 21 water is made available on an unscheduled and interruptible basis and is typically available only in average to wet years, generally only for a limited time in the later winter.

California watersheds, volume of water in storage, projected carry over storage, and Sacramento-San Joaquin Bay Delta regulatory requirements. Due to the uncertainty in water supply, contractors are not typically guaranteed their full Table A Amount, but instead a percentage of that amount based on the available supply. Once the percentage is set early in the water year, the agency can count on that amount of supply or more in the coming year. The percentage is typically set conservative and then held or adjusted upwards later in the year based on a reassessment of precipitation, snow pack, etc.

DWR prepares a SWP Delivery Capability Report (DCR) every two years to update their estimates of SWP water deliveries for current conditions and conditions 20 years in the future. A Draft 2017 DCR was prepared by DWR in December 2017. When finalized in early 2018, the 2017 DCR will update the previous 2015 DCR (July 2015). The DCR estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions. In addition, these estimates of future capability also reflect potential impacts of climate change and sea level rise.

Metropolitan used modeling studies from the 2015 DCR to develop SWP supply forecasts in their 2015 UWMP. Metropolitan used the Base Scenario as the current 2015 condition and transitioned to the delivery capability from the Early Long-Term Scenario in the next five years. For 2020 through 2029, Metropolitan used the forecasts from the Existing Conveyance Low Outflow Scenario. Metropolitan used the Alternative 4a study associated with the recirculated draft EIR/supplemental draft EIS on the California Water Fix for SWP deliveries for 2030 and beyond.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. Metropolitan has worked collaboratively with the other contractors to develop numerous voluntary Central Valley/SWP storage and transfer programs. The goal of these storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

Metropolitan has made rapid progress to date developing SWP storage and transfer programs. Metropolitan has contractual rights to 65 TAF of flexible storage at Lake Perris (East Branch terminal reservoir) and 154 TAF of flexible storage at Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing SWP deliveries to maximize yield. Over multiple dry years, it can provide Metropolitan with 73 TAF of additional supply. In a single dry year like 1977, it can provide up to 219 TAF of additional supply.

5.1.2 Colorado River Aqueduct

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as to users in

the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million acre-feet of Colorado River water annually, except in the event of extraordinary drought or serious accident to the delivery system in the United States, when the water allotted to Mexico would be curtailed. Mexico also can schedule delivery of an additional 200,000 acre-feet of Colorado River water per year if water is available in excess of the requirements in the United States and the 1.5 million acre-feet allotted to Mexico.

The Colorado River Aqueduct, which is owned and operated by Metropolitan, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County. After deducting for conveyance losses and considering maintenance requirements, up to 1.2 million acre-feet of water a year may be conveyed through the Colorado River Aqueduct (CRA) to Metropolitan's member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below.

California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona and Nevada when such supplies have been requested for use in California. Under the 1931 priority system that has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 acre-feet per year. This is the last priority within California's basic apportionment of 4.4 million acre-feet. In addition, Metropolitan holds the fifth priority right to 662,000 acre-feet of water, which is in excess of California's basic apportionment.

Metropolitan's planning strategy recognized explicitly that program development would play an important part in reaching the target level of deliveries from the CRA. The implementation approach explored a number of water conservation programs with water agencies that receive water from the Colorado River or are located in proximity to the CRA. Negotiating the Quantification Settlement Agreement (QSA) was a necessary first step for these programs. On October 10, 2003, representatives from Metropolitan, Imperial Irrigation District (IID), and Coachella Valley Water District (CVWD) executed the QSA and other related agreements. Parties involved also included San Diego County Water Authority (SDCWA), DWR, California Department of Fish and Wildlife (DFW), the U.S. Department of the Interior, and the San Luis Rey Settle Parties. One of those related agreements was the Colorado River Water Delivery Agreement: Federal QSA which specifies to which agencies water will be delivered under priorities 3a and 6a of the Seven Party Agreement during its term.

Metropolitan has identified a number of programs that could be used to achieve the regional long-term development targets for the CRA as listed below. For details of these programs, reference Metropolitan's 2020 UWMP.

- Imperial Irrigation District/Metropolitan Conservation Program
- Palo Verde Land Management, Crop Rotation, and Water Supply Program
- Management of Metropolitan-Owned Land in Palo Verde
- Southern Nevada Water Authority and Metropolitan Storage and Interstate Release Agreement
- Lower Colorado Water Supply Project
- Lake Mead Storage Program
- Quagga Mussel Control Program

5.1.3 Storage

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities. Storage is a major component of Metropolitan's dry-year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing the WSAP, is dependent on its storage resources.

In developing the supply capabilities in their 2020 UWMP, Metropolitan assumed the current (2020) storage levels at the start of simulation and used the median storage levels going into each of the five-year increments based on the balances of supplies and demands. Under the median storage conditions, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in their 2020 UWMP reflect actual storage program conveyance constraints. Under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

5.1.4 Supply Management Strategies

On the regional level, Metropolitan has taken a number of actions to secure a reliable water source for its member agencies. As discussed in Section 4 of this WSA, Metropolitan developed a WSAP [2] and has utilized it initially in 2009 through 2010 and once again in 2015 for dealing with potential shortages that took into consideration the impact on retail customers and the economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements. Additional actions taken by Metropolitan over the past several years have increased spending on conservation, local projects and water supply/reliability enhancements significantly.

[2] Metropolitan Water District Press Release dated February 12, 2008.

This spending plan included expenditures for the improvement of water conveyance facilities, water transfers, and providing financial assistance to member agency's local conservation, recycling, and groundwater clean-up efforts, and is continuing. To fund these past and future expenditures on conservation, recycling and other local projects, Metropolitan Full-Service Tier 1 treated water rates were increased by almost 54% for the 5-year period from January 1, 2009 to January 1, 2014. Over the subsequent eight years, this rate increased more modestly from between approximately 2 and 5 percent each year, depending on water sales volumes, operation and maintenance costs, etc.

5.2 Water Replenishment District Supply (Groundwater) Reliability

As has been discussed throughout this WSA, the other primary source of water for Liberty Utilities is the Central Basin. WRD is responsible for the protection of water rights as well as the management and replenishment of the Central Basin and West Coast Basin (CBWCB). WRD acts as Watermaster for the adjudicated portion of the Central Basin and replenishes and maintains the CBWCB at safe levels while significantly increasing the annual yield by utilization of the best available technology. Other than recycled water, WRD primarily recharges the Basin with river flows and at times and to a lesser degree with imported raw water purchased from Metropolitan.

According to the WRD's 2023 Engineer's Survey and Report (ESR), 92,000 acre-feet of water was supplied to the CBWCB as (1) recycled water and local runoff water, and (2) use of recycled water as seawater intrusion barrier. The 2023 ESR estimated that current year (2022/23 WY) total groundwater production would be 204,000 AF; assessable groundwater production (subject to the Replenishment Assessment) would be 185,000 AF; annual overdraft would be 78,200 AF; and accumulated overdraft would be (659, 800) AF.

For the current WY 2022/23, through the time of the writing of the 2023 ESR the year has been relatively wet, with rainfall at approximately 172 percent of normal.[3] According to the ESR, water levels in the Montebello Forebay rose nearly 23 feet by the start of the winter season and were presently about 42.6 feet higher than the previous year (May 2022). WRD anticipated in the 2023 ESR that there will continue to be sufficient supplies of safe and reliable groundwater to meet the demands of the pumpers in our service area in the current and ensuing years. For more details of current groundwater levels reference is made to Chapter 3 of the WRD's 2023 ESR.

5.2.1 WRD Water Independence Now Program

WRD has sustainable managed the groundwater supplies in Southern Los Angeles County for 60 years. The Central and West Coast Groundwater Basins provide 50 percent of the water supply for over 4 million people living in 43 cities.

Beginning in 2004, when WRD initiated the WIN Program, groundwater replenishment in the Montebello Forebay was averaging over 40 percent imported water with the remainder from

[3] WRD Engineering Survey Report, 2023, March 9, 2023, Updated June 6, 2023, Water Replenishment District of Southern California

recycled water and captured stormwater. After implementation of numerous projects and recycled regulatory advancements, WRD's groundwater replenishment demands, as of 2019, are entirely sourced from local recycled water and captured stormwater.

Building upon the sources of WRD's Water Independence Now (WIN) Program, the District initiated WIN 4 ALL to take advantage of available groundwater storage space to further increase the region's use of sustainable groundwater supplies. WIN 4 ALL will utilize groundwater aquifers to create a locally sustainable water supply for the Los Angeles Basin Region.

5.2.2 WRD Strategic Plan

To provide near-term focus for accomplishing WIN 4 ALL goals, WRD has produced a 2-Year Strategic Plan, which incorporates planning efforts from the regularly updated 2-Year Capital Improvement Projects Program document and enlists a 2-Year work plan for immediate District strategy moving into the following year.

5.2.3 Regional Groundwater Monitoring

WRD has been monitoring the CBWCB for over 50 years. The Regional Groundwater Monitoring Program (RGWMP) currently consists of a network of more than 300 monitoring wells at over 50 locations throughout the District. WRD performs extensive collection, analysis, and reporting of groundwater data to ensure proper resource management. Each year WRD publishes a Regional Groundwater Monitoring Report., which are available on-line at Regional Groundwater Monitoring Report - Water Replenishment District (wrd.org).

5.3 Liberty Utilities Water Supply Reliability Measures

Liberty Utilities implements CPUC-approved rules including Rule No. 14.1 ("Water Shortage Contingency Plan"), Schedule 14.1 ("Water Shortage Contingency Plan with Staged Mandatory Reductions, Restrictions and Drought Surcharges"), and Rule No. 20 ("Water Conservation"), which prohibit water waste. For copies of these ordinances and the CPUC rules and schedule reference is made to Liberty Utilities – Park Water 2020 UWMP appendices. CPUC's Rule No. 14.1, when in effect, sets forth the procedures to implement the following water conservation restrictions.

- Use of potable water for more than minimal landscaping
- Use through a broken or defective water meter
- Use of potable water which results in flooding or runoff in gutters or streets
- Use of potable water for washing private cars or commercial aircrafts, cars, busses boats, or trailers, except at a fixed location where water is properly maintained to avoid wasteful use
- Use of potable water for washing buildings, structures, driveways, street cleaning, or other hard-surfaced areas
- Use of potable water to irrigate turf, lawn, gardens or ornamental landscaping
- Use of potable water for construction purposes
- Use of potable water for filling or refilling swimming pools

Schedule 14.1, when activated imposes the mandatory conservation restrictions above and/or declares a level of water shortage which allows customer surcharges and reductions in water use. CPUC's Rule 20 discourages wasteful use of water and promotes the use of water saving devices. The stated purpose of the rule is to "ensure that water resources available to the utility are put to a reasonable beneficial use and that the benefits of the utility's water supply and service extend to the largest number of persons."

Liberty Utilities implements a tiered conservation pricing rate structure for residential and non-residential customers as approved by the CPUC. Residential customers are billed on an inclining block rate structure, with a fixed service charge based on meter size to encourage water conservation and discourage waste. Liberty Utilities also has an inclining drought emergency surcharge pursuant to Schedule 14.1 when activated upon CPUC approval.

In response to DWR's adoption of the State MWELO in July 2015, local cities and the County of Los Angeles that make up the areas within Liberty Utilities' service area adopted landscape ordinances and guidelines to limit potable water use on new development projects and remodeled landscapes over a certain size. Collectively, the ordinances and guidelines should reduce landscape water usage on new and remodeled landscaping by approximately 25 percent based on DWR estimates.

Reliability is a measure of a water system's expected success in managing water shortages. In response to Metropolitan's last WSAP requesting a Level 3 or 15% reduction in demand, Liberty Utilities' potable water demand dropped from 11,171 AF (the average of the two years prior to 2015) to 9,580 AF in 2015 or a 14.2 percent reduction and continued to drop another 2.1 percent in 2016 compared to 2015. Therefore, users in Liberty Utilities' service area have a history of responding to calls for water conservation.

5.4 Normal, Dry Year and Multiple-Dry Year Supply Reliability

Information regarding the reliability of Liberty Utilities' water supplies is based on development of normal year, single-dry year, and multiple-dry years supplies over the next 20 years. For Liberty Utilities service area, their 2020 UWMP selected calendar year (CY) 2020 as a normal year as the total rainfall was similar to the historical average. CY 2017 was selected as a single-dry year as the total rainfall was well below the average rainfall. A multiple-dry year is defined by a five-year dry period and CY 2011 to 2015 was selected as the best representative for this scenario as the total amount of rainfall during each of these years was less than the historical average.

5.4.1 Metropolitan Supplies and Demands

Liberty Utilities' treated imported water supplies from Metropolitan, through CBMWD, may be impacted during a multi-year drought or other conditions which limits Metropolitan from delivering sufficient water supplies to all of its member agencies, and consequently to Liberty Utilities. In anticipation of such a reduction in supplies, Metropolitan developed a WSAP, as described previously.

For Metropolitan's 2020 UWMP, they developed regional demand forecasts by first estimating total retail demands for their service area and then factoring out water savings attributed to conservation. Projections of local supplies then were derived using data on current and expected

local supply programs and the IRP Local Resource Program Target. The resulting difference between total demands net of conservation and local supplies is the expected regional demands on Metropolitan supplies. More detailed information on Metropolitan's forecasts can be found in their 2020 UWMP. In all years out to 2045 for normal, single-dry and multiple-dry year scenarios there is a projected surplus, even without Metropolitan's Supplies under Development and Potential Supplies.

5.4.2 Central Basin Groundwater Supplies and Demands

WRD has been reliably managing the groundwater supplies of the Central and West Coast Basins for over 60 years as discussed previously. During a normal year such as CY 2020, Liberty Utilities met about 52 percent of its total demands with supplies from the Central Basin. During a single-dry year (CY 2017), Liberty Utilities also met about 52 percent of its total demands with supplies from the Central Basin. During a five-year drought (multiple-dry year period) corresponding to CY 2011 through 2015, Liberty Utilities met between 22 and 36 percent of its total demands with supplies from the Central Basin.

5.4.3 Liberty Utilities Supplies and Demands

Liberty Utilities normal year supplies and demands were discussed in Section 4.0 and are again presented in Table 5.1 consistent with the normal year hydrology discussed above. As discussed previously, the Project demands are assumed to be included in Liberty Utilities' overall demand projections from their 2020 UWMP and are broken out separately in Table 5.1 to illustrate Project phasing along with Liberty Utilities' service area demand projections from the 2020 UWMP.

Table 5.1
Liberty Utilities Normal Year Water Demands (AF)

Demand[1]	2025	2030	2035	2040	2045
Total Potable Demand without Project[2]	11,201	11,203	11,230	11,291	11,351
Project Potable Demand[3]	7	63	95	95	95
Total Potable Demand	11,208	11,266	11,325	11,386	11,446
Recycled Water Demand	260	260	260	260	260
Total Demand	11,468	11,526	11,585	11,646	11,706

1) All normal or average year potable demands include 2.57% non-revenue water (water loss) consistent with Agency's 2020 UWMP.

2) Normal year potable demand based on Agency's 2020 UWMP excluding demand resulting from Project.

3) Estimated Project demand including 2.57% water loss.

In their 2020 UWMP and as discussed above, Liberty Utilities utilized typical years to generate the available supply during single-dry and multiple-dry years and generated a percentage of average supply available for each of those conditions. Table 5.2 shows these percentages from Table 7-1 of the Liberty Utilities – Park Water 2020 UWMP.

Table 5.2
Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year	Volume Available (AF)	Pctg. of Average Supply
Average Year	2020	11,224	100.0%
Single Dry Year	2017	10,140	90.3%
Multiple Dry Year 1	2011	11,837	105.5%
Multiple Dry Year 2	2012	11,828	105.4%
Multiple Dry Year 3	2013	11,155	99.4%
Multiple Dry Year 4	2014	9,787	87.2%
Multiple Dry Year 5	2015	9,605	85.6%

Since Liberty Utilities was able to reduce demands to match available supply in each of these normal and historical drought scenarios, and since additional regional reliability projects are being implemented in the future as discussed in the Liberty Utilities – Park Water 2020 UWMP and herein, in Metropolitan's Integrated Resources Plan and 2020 UWMP, in the CBMWD 2020 UWMP, and in the WRD Strategic Plan and 2023 Engineer's Survey and Report, it is concluded that Liberty Utilities can reliably meet the future normal, single-dry, and multiple-dry year demands. The worst annual condition above would call for a demand reduction of less than 13 percent, which has been done in the past and which there are ordinances in place to achieve.

Based on the reasoning detailed in Section 4.2 that the Project demands can reasonably be assumed to be included in the water demand estimates of Liberty Utilities' 2020 UWMP, it is therefore concluded that Liberty Utilities can reliably meet the demands of the Project and the projected demands within the remainder of their service area now and for the next twenty years into the future.

6 CONCLUSION

The estimated buildout water supply requirement for the Proposed Project is projected to be 95 AFY (including water loss). That demand was included in the Liberty Utilities – Park Water 2020 UWMP. The Project demand is estimated at only 0.8 percent of Liberty Utilities' estimated total water demand for 2045 from their 2020 UWMP.

Liberty Utilities is projected to have sufficient imported and groundwater supplies to meet normal, single-dry year, and multiple-dry year scenarios with the Proposed Project demands because:

1. Liberty has met all demands during previous normal, single-dry, and multiple-dry year conditions by calling on groundwater storage reserves and through reductions in demand implemented through available, implementable conservation ordinances and practices, as demonstrated in the past.
2. Metropolitan has projected future supply surpluses for each of these scenarios as illustrated in their 2020 UWMP.
3. WRD has plans to increase the reliability of the Central Basin.

The information included in this WSA identifies a sufficient and reliable water supply for Liberty Utilities, now and into the future, including a sufficient water supply for the land uses proposed for the Proposed Project. These supplies are also sufficient to provide for overall service area-wide growth as projected in the Liberty Utilities – Park Water 2020 UWMP.

7 REFERENCES

The following documents were used in preparing this water supply assessment:

Central Basin Municipal Water District, *2020 Urban Water Management Plan*, June 2021, SA Associates.

Liberty Utilities – Park Water, *2020 Urban Water Management Plan*, June 2021, Stetson Engineers, Inc.

Los Angeles County Sanitation Districts, *33rd Annual Status Report on Recycled Water Use*, FY 2021-22.

Metropolitan Water District of Southern California (MWD), 2020 *Urban Water Management Plan, June* 2021.

Metropolitan Water District of Southern California (MWD), *Integrated Water Resources Plan Process 2020 Update,* March 2021 Workshop.

Water Replenishment District of Southern California*, 2023 Engineer's Survey and Report*, March 9, 2023, Updated: June 6, 2023

Water Replenishment District of Southern California*, Two Year Strategic Plan*, April 2022.

Water Replenishment District of Southern California*, Water Independence Now (WIN),* Available on-line: Water Independence Now (WIN) - Water Replenishment District (wrd.org),.

Appendix K
Sewer Study

Sewer Area Study

for

Willowbrook Wellness Center

1667 East 118th Street

Los Angeles, CA 90059

Case #: ESTU2024000108

PC 12689AS

CUP#: RPPL2023004092

KPFF Job #: 2100176

October 2024

PREPARED BY:

KPFF CONSULTING ENGINEERS

700 S. Flower St., Suite 2100

Los Angeles, California 90017

(213) 418-0201

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Sewer Area Study

A. Introduction

The following Sewer Area Study has been prepared by KPFF Consulting Engineers for the development of the Willowbrook Wellness Center site located within an unincorporated area in Los Angeles County. The purpose of this study is to incorporate zoning changes new to the tributary area and to reevaluate the capacity of the existing sewer lines from downstream of the proposed development to the Los Angeles County Sanitation District (L.A.C.S.D.) trunk sewer. The project site is part of the Willowbrook Transit Oriented District (TOD) Specific Plan.

B. Site Description

The proposed site is located within the Willowbrook neighborhood. The site encompasses 12.8-acres and is comprised of two sites which are divided by East 117th Street. The first site is bounded by East 117th Street to the north, East 118th Street to the South, Compton Avenue to the west, and a parking structure and asphalt parking lot to the east. The site is also bisected on the west side by East 117th Place. The second site is located north of East 117th Street and is bounded by a residential neighborhood to the west, East 117th Street to the south, and Interstate 105 to the north and east.

The first existing site is currently developed with an abandoned elementary school (formerly Lincoln Elementary School) owned by Compton Unified School District. It is currently developed with 10 buildings. The site is primarily made up of hardscape and two asphalt surface parking lots found on the southeast and northeast corner of the site. One parking area can be accessed from East 118th Street and the second parking area can be accessed from East 117th Street. The lawn areas are found on the southwest and northeast side of the site. The second site appears to be undeveloped, vacant, and is primarily made up of landscape and dirt areas.

C. Project Description

In the proposed condition, there are seven types of programs that include the construction of 12 buildings. According to the program provided by Frederick Fisher and Partners dated April 18th, 2022, these 12 buildings include the following:

1. 4 Affordable Housing Buildings – 4-stories (A1, A2, A3, A4)
2. 1 Affordable Senior Housing Buildings – 4-stories (A5)
3. 3 Market Rate Housing Buildings – 5-stories (U1, U2, U3)

4. 1 Market Rate Housing & CDU Focused Commercial Building – 5-stories (U3)
5. 1 Athletics Building – 2-stories (U6)
6. 1 Office & CSUSD Join Us/Pipeline Building – 8-stories (U7)
7. 1 Parking Structure – 8-stories (U8)

D. Existing Sewer System

According to the Los Angeles County Sewer Map No. S-1755 shown in Appendix B, there are both existing Sanitary Maintenance District (S.M.D.) and Los Angeles County Sanitation District (L.A.C.S.D.) sewer mains located at the perimeter of the site. There is an existing 27" L.A.C.S.D. vitrified clay pipe (VCP) Hooper AV Compton Creek trunk sewer main along Compton Avenue flowing south. On 117th Street, there is an existing 8" S.M.D. vitrified clay pipe (VCP) sewer main flowing east. On 117th Place, there is an existing 8" S.M.D. vitrified clay pipe (VCP) sewer main flowing west. On 118th Street, there is an existing 8" S.M.D. vitrified clay pipe (VCP) sewer main that has a high point that splits the flow east and west of manhole 110. Along East 118th street there is an existing 30" L.A.C.S.D. reinforced concrete pipe (RCP) trunk sewer main flowing east.

Refer to as-built drawings found in Appendix B and C for existing sizes, slopes, and pipe material.

E. Proposed Sewer System

The proposed sewer lines and point of connections are shown in Appendix F. On 117th Place an existing 8" clay sewer main owned and maintained by the Sewer Maintenance District (S.M.D.) of Los Angeles County flowing from East to West will supply service for future Buildings A2 and A4 located on the southwest side of Site 1, as well as Buildings U6 and U7 located on the north side of Site 1. On 118th Street an existing 8" clay S.M.D. sewer main flows in two different directions from manhole 110. The sewer main flowing from West to East will be used to supply service for Buildings, U1, U2, U3 and U4 located on the south side of Site 1. The sewer main flowing West will supply service to Buildings A1, A3, and A5 located on the southwest side of Site 1. On 117th Street an existing 8" clay S.M.D. sewer main flowing from West to East will supply service to Building U8 located on Site 2.

F. Methodology

Tributary areas for this study were determined based on the as-builts and Willowbrook TOD Specific Plan maps found in Appendix C and D. For the purposes of this study, the flow was calculated in the sewer mains connecting the proposed site to an existing L.A.C.S.D. trunk sewer main. The County of Los Angeles Department of Public Works uses coefficients to approximate sewer flows. The County's sewer flow coefficients are contained in Appendix E.

It is understood when Public Works determines there is available capacity in a mainline sewer for infill and redevelopment projects, the remaining available capacity shall be allocated on a first come - first served basis.

Reference List:

- Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity
    - https://dpw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Sewer%20Capacity%20Policy%20Memo%2010-12-05.pdf
- Private Contract Sanitary Sewer Manual
    - https://dpw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Private%20Contract%20Sanitary%20Sewer%20Manual.pdf
- Estimated Average Daily Sewage Flow for Various Occupancies
    - https://dpw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Estimated%20Average%20Daily%20Sewage%20Flow%20for%20Various%20Occupancies.pdf
- Willowbrook TOD Specific Plan
    - https://planning.lacounty.gov/wp-content/uploads/2023/06/willowbrook_tod-specific-plan.pdf

G. Sewer Capacity Analysis

The sewage load for the proposed development was calculated using the Estimated Average Daily Sewage Flows for Various Occupancies which are based on proposed building square footage and use. A peaking factor of 2.5 was used to determine the peak flow. See Table 1 below that breaks down the estimated total peak flow for each sewer area on the project site.

The project's proposed demands are based on the current architectural plans as described in Section C.

Table 1: Proposed Project Flow

Building	Average Daily Flow Unit	No. of Units	Average Daily Flow (GPD)	Peak Flow (GPD)	Peak Flow (cfs)
AREA DRAINING TO 117TH STREET					
U8	0.025	263,540	6,588.5	16,471.25	0.025
U8 Total					0.025
				117th Street Total	***0.025***

Building	Average Daily Flow Unit	No. of Units	Average Daily Flow (GPD)	Peak Flow (GPD)	Peak Flow (cfs)
AREA DRAINING TO 118TH STREET (EAST)					
U1	200	35	7,000	17,500	0.027
	250	28	7,000	17,500	0.027
	300	9	2,700	6,750	0.010
U1 Total					0.065
U2	200	40	8,000	20,000	0.031
	250	15	3,750	9,375	0.015
	300	15	4,500	11,250	0.017
U2 Total					0.063
U3	200	108	21,600	54,000	0.084
	250	0	0	0	0.000
	300	0	0	0	0.000
U3 Total					0.084
U4	200	30	6,000	15,000	0.023
	250	15	3,750	9,375	0.015
	300	10	3,000	7,500	0.012
U4 Total					0.049
				118th Street (East) Total:	***0.260***

Building	Average Daily Flow Unit	No. of Units	Average Daily Flow (GPD)	Peak Flow (GPD)	Peak Flow (cfs)
AREA DRAINING TO 118TH STREET (WEST)					
A1	200	22	4,400	11,000	0.017
	250	12	3,000	7,500	0.012
	300	13	3,900	9,750	0.015
	0.025	9,040	226	565	0.001
A1 Total					0.045
A3	200	24	4,800	12,000	0.019
	250	16	4,000	10,000	0.015
	300	13	3,900	9,750	0.015
	0.025	11,180	279.5	698.75	0.001
A3 Total					0.050
A5	200	53	10,600	26,500	0.041
	250	0	0	0	0.000
	300	1	300	750	0.001
	0.025	11,440	286	715	0.001
A5 Total					0.043
				118th Street (West) Total:	***0.138***

Building	Average Daily Flow Unit	No. of Units	Average Daily Flow (GPD)	Peak Flow (GPD)	Peak Flow (cfs)
AREA DRAINING TO 117TH PLACE					
A2	200	22	4,400	11000	0.017
	250	12	3,000	7500	0.012
	300	13	3,900	9750	0.015
	0.025	9040	226	565	0.001
A2 Total					0.045
A4	200	24	4,800	12,000	0.019
	250	16	4,000	10,000	0.015
	300	13	3,900	9750	0.015
	0.025	11,180	279.5	698.75	0.001
A4 Total					0.050
U6	20	1565	31,300	78,250	0.121
				600	0.001
U6 Total					0.122
U7	0.2	116,000	23,200	58,000	0.090
	0.025	39,400	985	2,462.5	0.004
U7 Total					0.094
				117th Place Total:	***0.310***

The existing flow was calculated by analyzing the flow into the existing S.M.D. sewer mains to the existing L.A.C.S.D. trunk sewer mains. This analysis was done by multiplying the tributary area acreages surrounding the S.M.D. sewer mains servicing the proposed project site by their corresponding zoning coefficient based on the Zoning Designation as shown on the Willowbrook TOD. The Zoning Designations used for the tributary areas are Mixed Use 2 (MU-2) which assumes 60 dwelling units per acre, Willowbrook Residential 3 which assumes 30 dwelling units per acre, and Drew Educational which is based on the number of students. See Appendix D.

The total flow into the existing S.M.D. sewer mains was calculated by adding the proposed project flow to the existing flow. See Appendix G for Zoning Area Exhibits and Sewer Flow Calculations.

H. Proposed Mitigation

According to the “Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity”, LA County Public Works states that when an area study indicates that flow conditions based on calculated discharges is between 101% to 150% of capacity, no flow measurements and no mitigation will be required. In the proposed condition, there is no mitigation required for the S.M.D. sewer mains in 118th Street (East), 118th Street (West), and 117th Place.

Note that by calculating the flow using the MU-2 zoning designation which assumes a zone coefficient of 0.06, the existing flow for the S.M.D. sewer main in 117th Street and Holmes Avenue between manholes 121 and 122 is 165.48% which exceeds the allowable 150% capacity before any proposed flow is taken into account. The proposed flow from the project would only add 8.2% to the total flow in the 117th Street/Holmes Avenue S.M.D sewer main. See Appendix G for existing condition and proposed condition calculations.

According to coordination with the County of Los Angeles, flow monitoring would be required for the S.M.D. sewer main in 117th Street and Holmes Avenue between manholes 121 and 122, since the calculated proposed flow would be 173.68% which is over the allowable 150% capacity. See Table 2 which breaks down the flow summary.

Table 2: Flow Summary

Street	Existing Flow	Proposed Flow	Mitigation Required
117th St./Holmes Ave.	165.48%	173.55%	Yes, Flow Monitoring Required 165.48% > 150% 173.55% > 150%
118th St. (East)	60.90%	144.87%	No 144.87% < 150%
118th St. (West)	17.56%	68.67%	No 68.67% < 150%
117th Pl.	24.22%	139.22%	No 139.22% < 150%

I. Flow Monitoring Results

Flow monitoring was performed by Utility Systems Science & Software per the Los Angeles County standard for a minimum of 7 days. The monitoring was performed within manhole 121 from July 31st, 2024 to August 8th, 2024 and the results are presented in the report titled Temporary Wastewater Flow Monitoring, dated August 13th, 2024. See Appendix I for flow monitoring data and report.

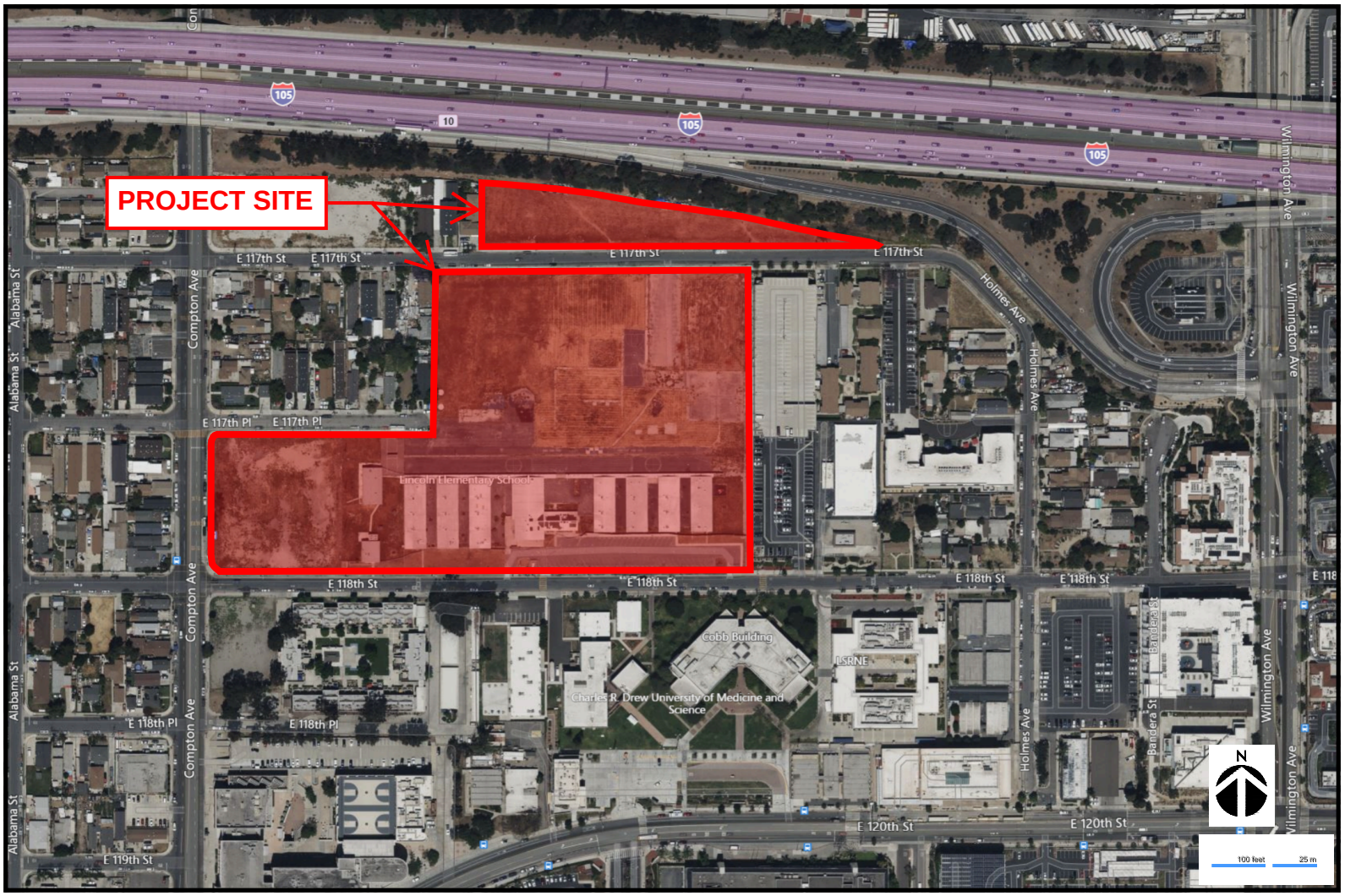
J. Conclusion

Based on the Willowbrook TOD and the Los Angeles County Sewer Flow Code, the total proposed flow into the S.M.D. sewer mains located in 118th Street flowing East, 118th Street flowing West, and 117th Place are all within the acceptable 150% capacity. Based on the "Policy for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity", when an area study indicates that flow conditions based on calculated discharges are between 101 percent to 150 percent of capacity, no flow measurements and no mitigation will be required. If maintenance records warrant, a flow test may be required. The total proposed flow in the S.M.D. sewer main between manholes 121 and 122 was calculated to be 173.68% which is above 150% of the allowable pipe capacity and would therefore require flow monitoring. Based on the results of the flow monitoring, it appears that the maximum d/D of the existing flow in manhole 121 is 0.13. If d/D=0.5 is 100% of the allowable pipe capacity, then the existing flow when d/D=0.13 is 26% of the allowable pipe capacity. See Appendix I for flow monitoring data.

When using Kutter's Formula to add the proposed development flow rate to the existing flow rate, the total proposed flow within the sewer main between manhole 121 and 122 is 74.90% of the allowable pipe capacity, which is under 150% of the allowable pipe capacity, therefore no mitigation would be required. See Appendix G for proposed flow calculations based on flow monitoring results.

Appendix A:
Vicinity Map

Appendix A - Vicinity Map



1667 E 118th St, Los Angeles, CA 90059

Appendix B:
S.M.D Map

Exhibit B - Los Angeles County Sewer Maintenance District Map

S-1755

SEE SHT. NO. S-1754

C-87
C-89

SEE SHT. NO. S-1700

SEE SHT. NO. S-1810

SEE SHT. NO. S-1756

N 4,084,000
E 4,207,000

PROJECT SITE

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 186

MAP REV
10-18-16

DATA BASE REV
02-07-96

CONSOLIDATED S.M.D.

S-1755

T: 704 F-7

0819.0819.1755

Appendix C:
Sewer As-Built

APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-117TH ST AND COMPTON AVE.

C.I. 1165-1-1

B.M. C-225, Elev.= 93.403, F.B. 629, pg. 144
117th St (on ℄) 990'± E. of Compton Ave.
"+" on N.E. rim of M.H. in front of house #7117

93.40
E 1+00
0+00

95
90
85
0

87.45 on 60°
E 1+16
0+00

USE STANDARD STRENGTH PIPE
USE CEMENT MORTAR FOR ALL VITRIFIED CLAY PIPE JOINTS
ENCASE FOUR FEET OF SEWER AT POINTS OF INTERFERENCE WITH POLES AS PER S-a-6
WIRE AND TAGS AS SPECIFIED IN SECTION 61 OF THE SPECIFICATIONS SHALL BE OMITTED
CONSTRUCT HOUSE CONNECTIONS WITH INVERT AT CURB LINE 5 FEET BELOW CURB GRADE EXCEPT AS NOTED
ALL STRUCTURES SHALL BE BRICK SEWER STRUCTURES AS PER PLAN NO. S-a-104
USE STANDARD MANHOLE FRAMES AND COVERS AS PER PLAN NO. S-a-117
RESURFACE TRENCH WITHIN PAVED AREA WITH PREMIX ROCK AND OIL 3" IN THICKNESS
DELIVER ALL SALVAGE MATERIAL TO L.A. COUNTY SEWER MAINTENANCE YARD

COUNTY IMPROVEMENT NO. 1165

PROFILE, ALIGNMENT AND GRADE OF

SANITARY SEWERS

TO BE CONSTRUCTED IN

117TH STREET

BETWEEN A POINT 1000 FEET EAST OF COMPTON AVE. AND ALABAMA ST.

ONE SHEET

SCALE: HORIZ. 1"=40' VERT. 1"=40'

NOV. 1945

COUNTY OF LOS ANGELES, CALIFORNIA.

ALFRED JONES
COUNTY ENGINEER

RECOMMENDED M. J. Foster
SANITATION AND STORM DRAIN ENGINEER

APPROVED C. E. Adams
CHIEF DEPUTY COUNTY ENGINEER

APPROVED C. R. Compton
ASST. CHIEF ENGINEER OF SANITARY SANITATION DISTRICT No. 1

APPROVED AS TO FORM
H. W. KENNEDY
COUNTY COUNSEL
BY Arthur [illegible]
DEPUTY

FOR LEGEND
SEE PLAN NO. S-a-64

NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURB, CENTER LINE OF STREET OR CENTER LINE OF ALLEY ARE SHOWN BY CIRCLES ON PROFILES. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U. S. C. & G. S. DATUM OR MEAN SEA LEVEL.
UNIT PRICES FOR ADDITIONAL WORK WHICH MAY BE REQUIRED BUT WHICH CANNOT BE ASCERTAINED IN ADVANCE, SHALL BE SUBMITTED IN THE PROPOSAL.
THIS DRAWING AND THE DATA HEREON ARE HEREBY MADE A PART OF THE SPECIFICATIONS.

REFERENCES				
W. S.	26	DESIGNED	SCOTT	OCT. 1946
A. B.	146	TRACED	SCOTT	OCT. 1946
F. B.	1225	CHECKED	HUGHES	NOV. 1946

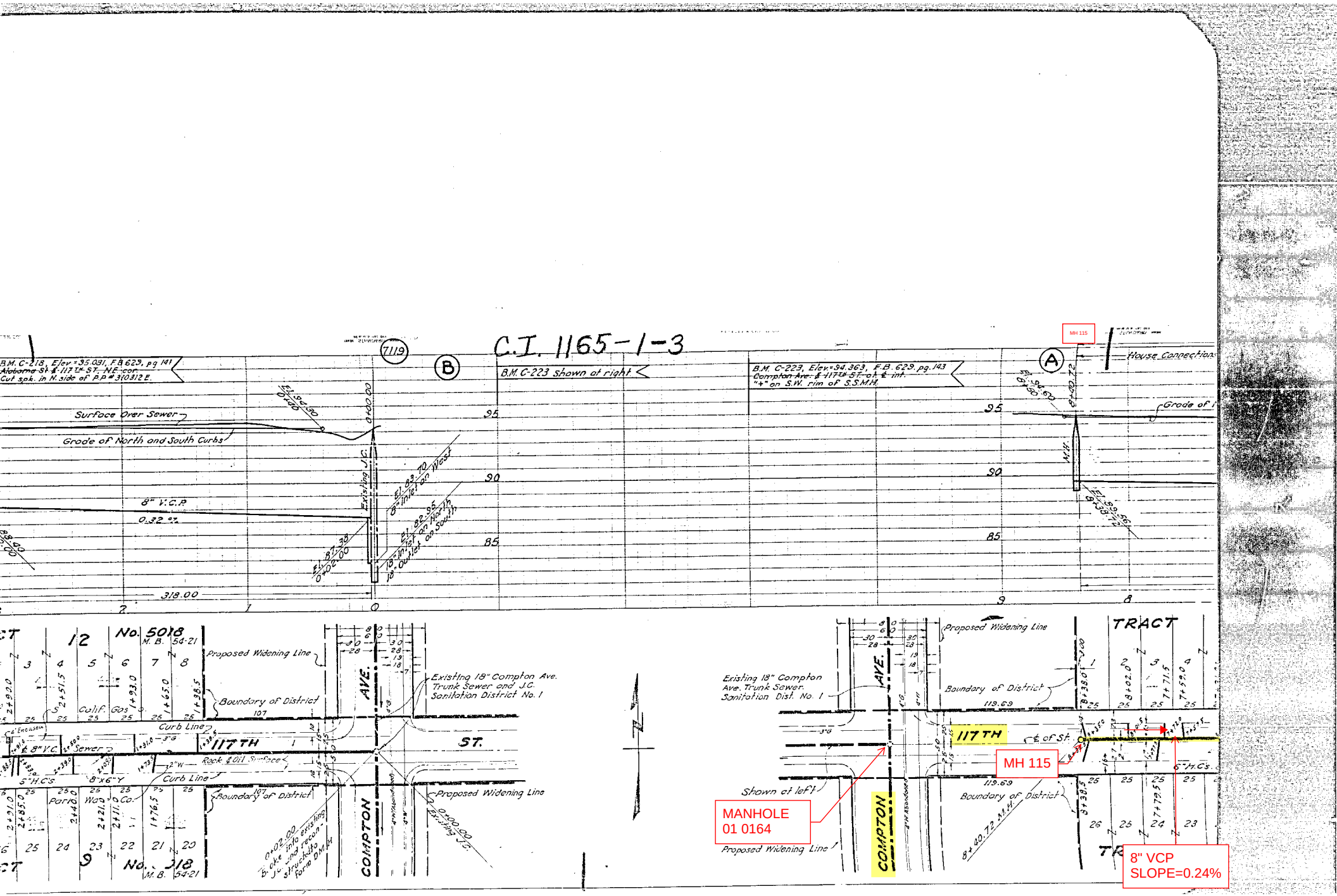
Existing 8" VCP Sewer
E.F.M.H. C.I. No. 611

Boundary of District

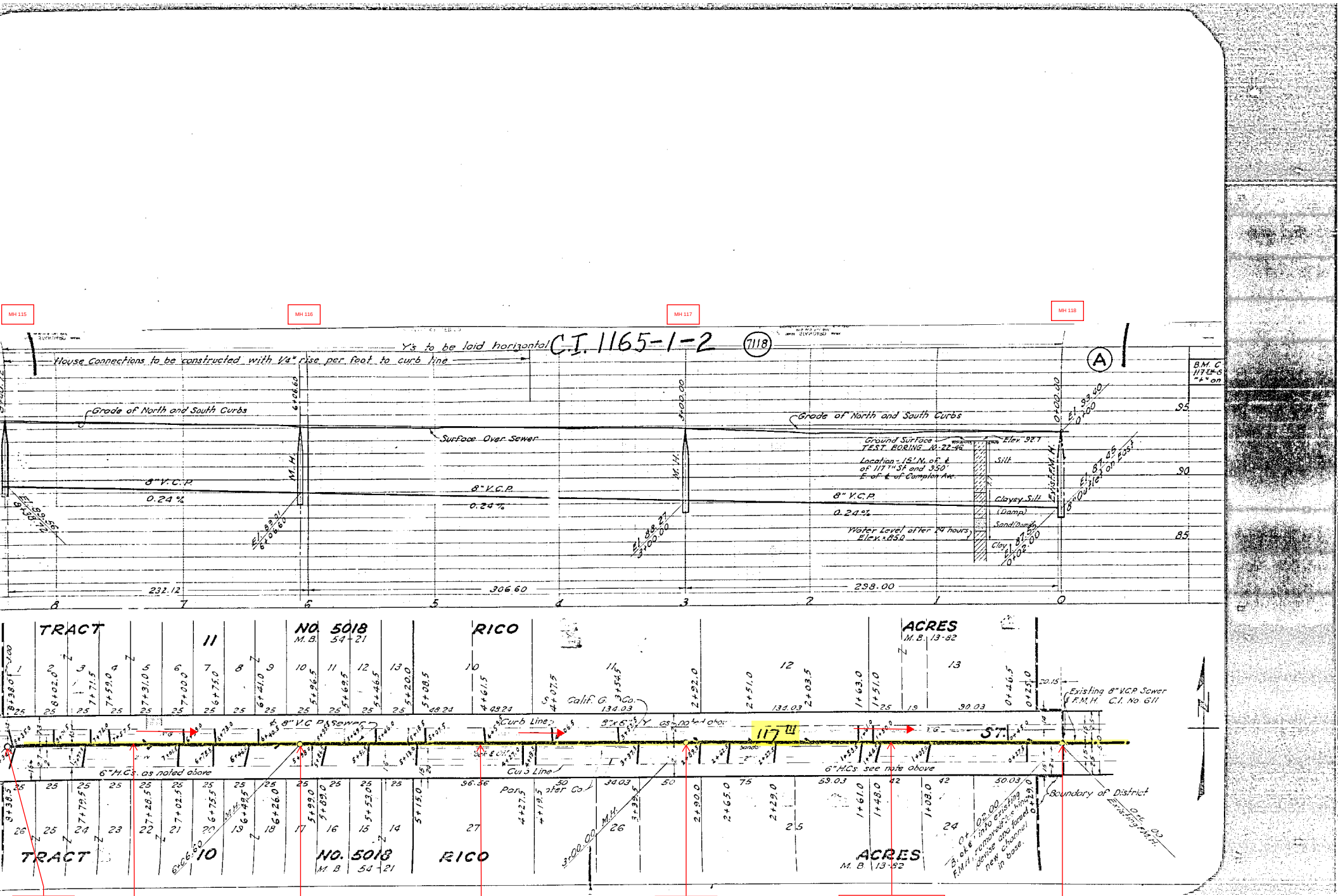
Existing M.H.

C.I. 1165
ONE SHEET
117TH ST.

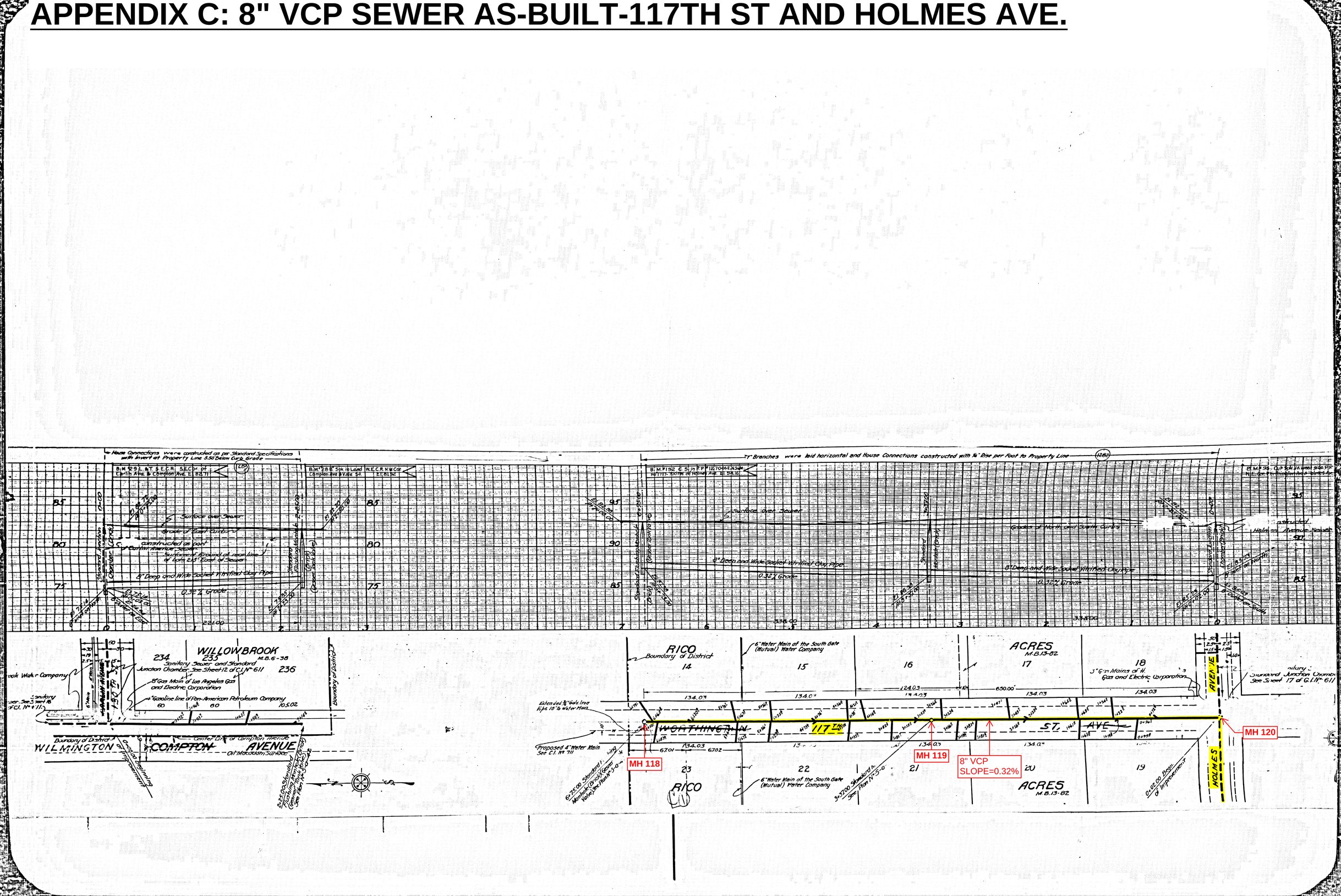
APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-117TH ST AND COMPTON AVE.



APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-117TH ST AND COMPTON AVE.



APPENDIX C: 8" VCP SEWER AS-BUILT-117TH ST AND HOLMES AVE.



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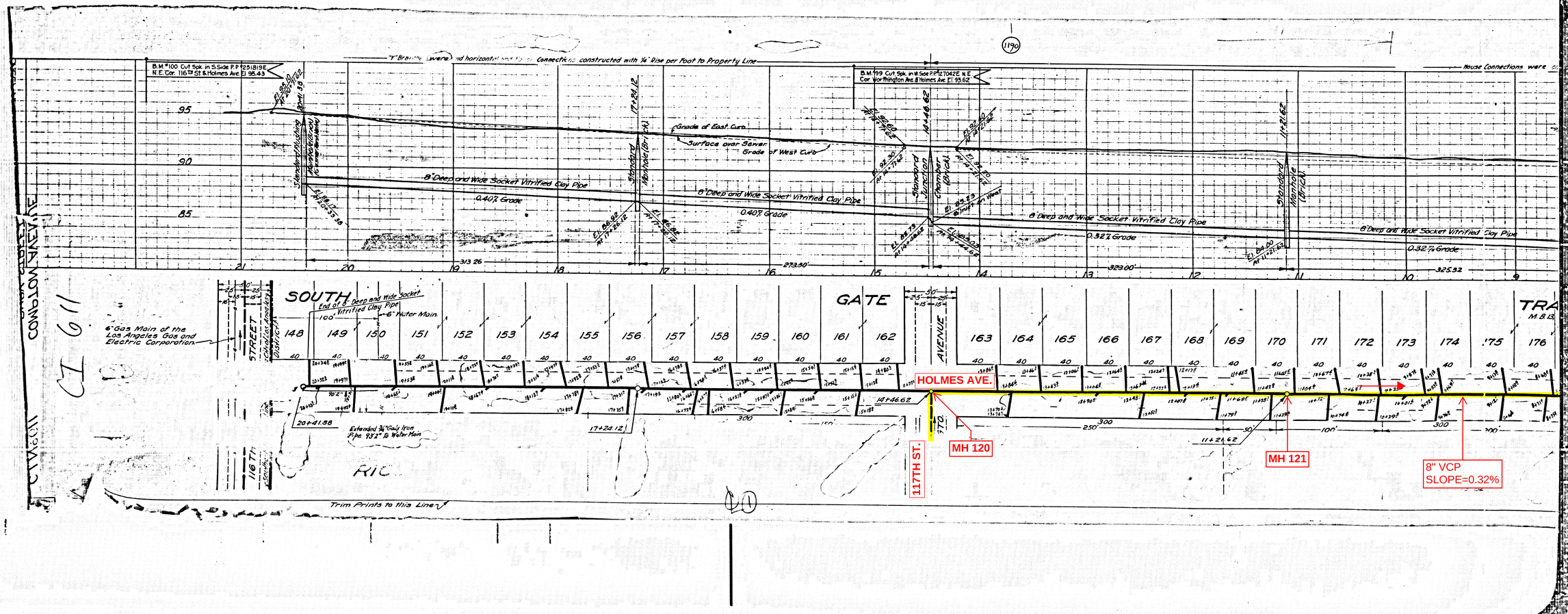

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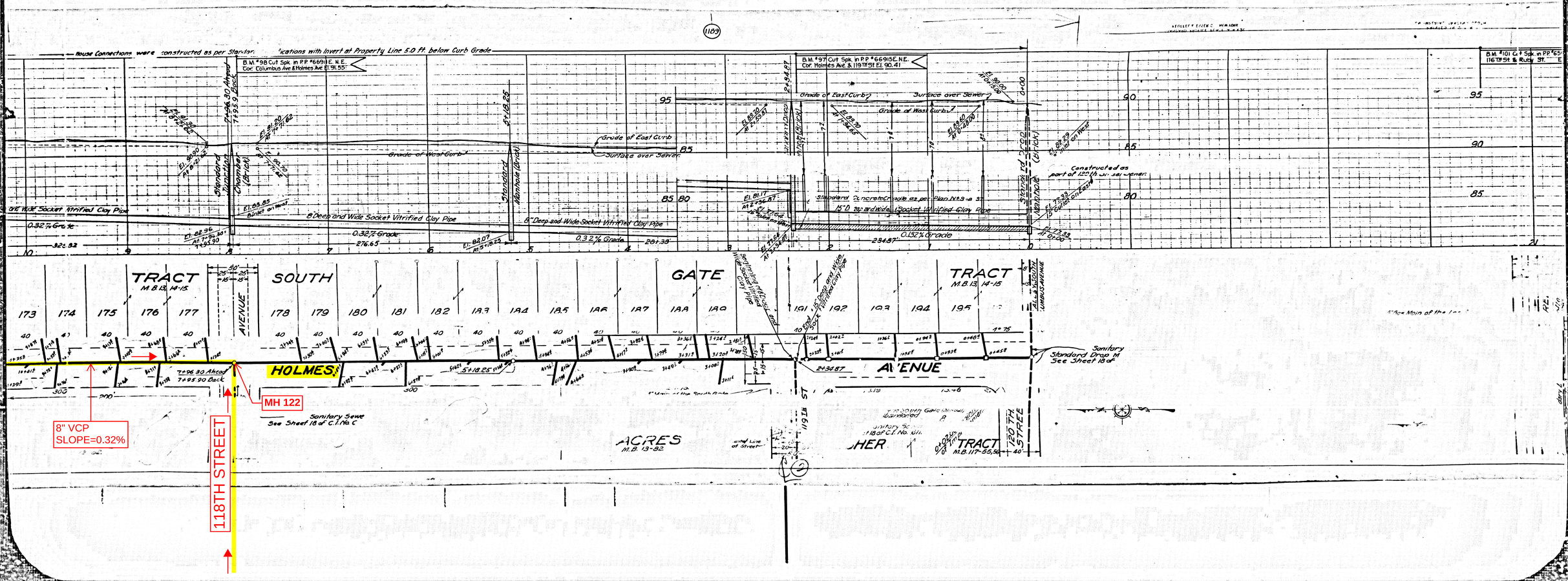
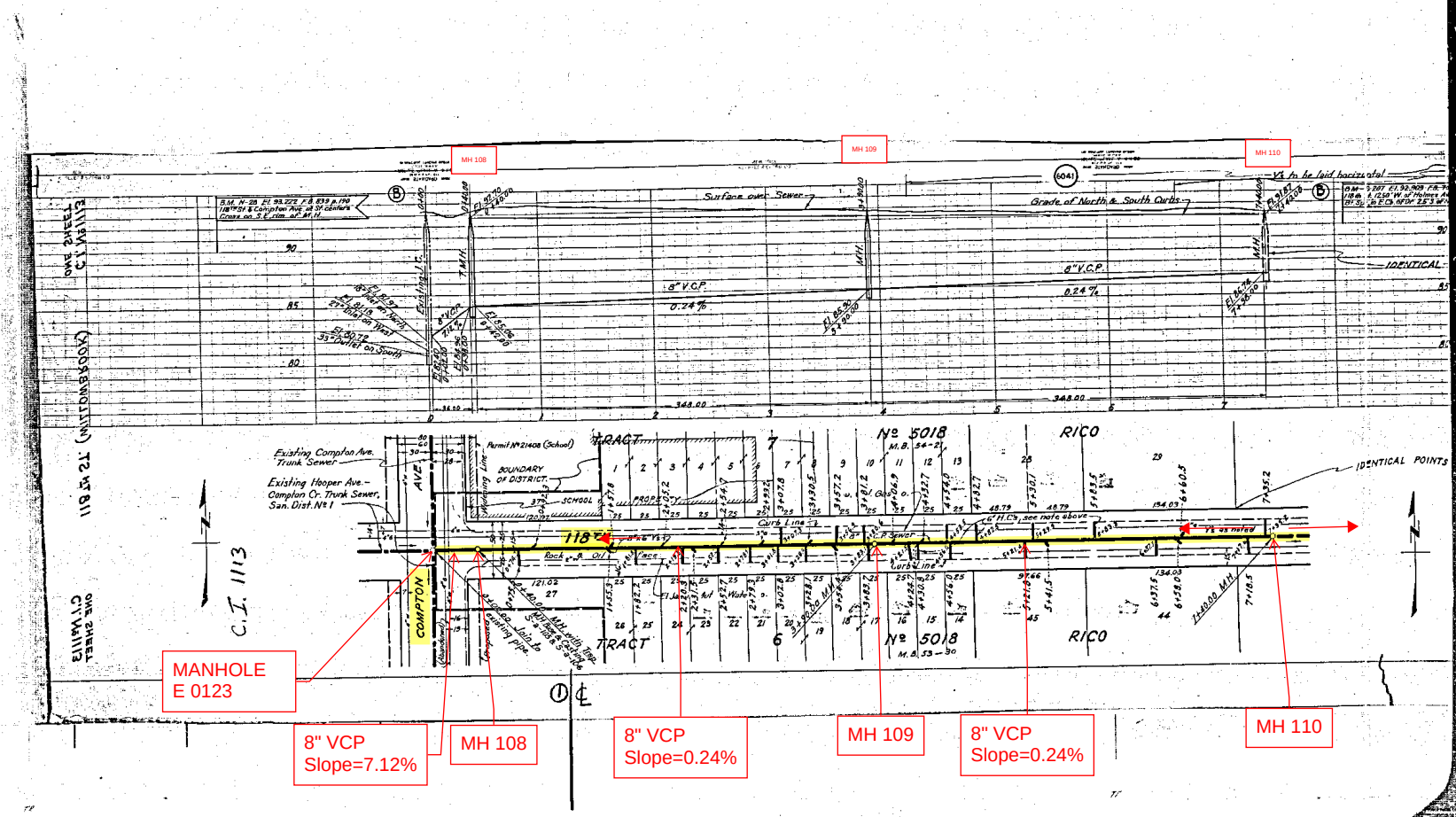


APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-118TH ST AND COMPTON AVE.



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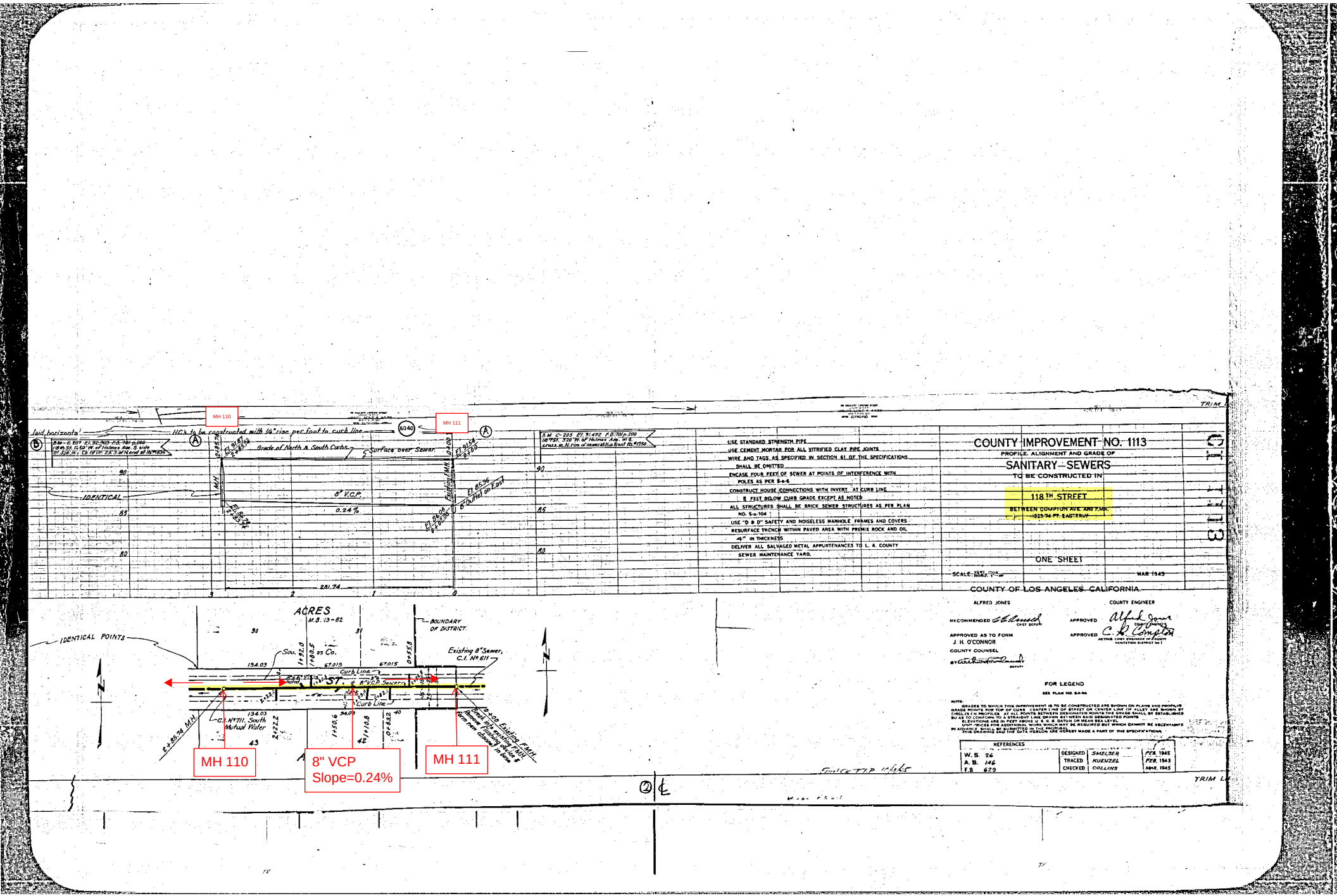
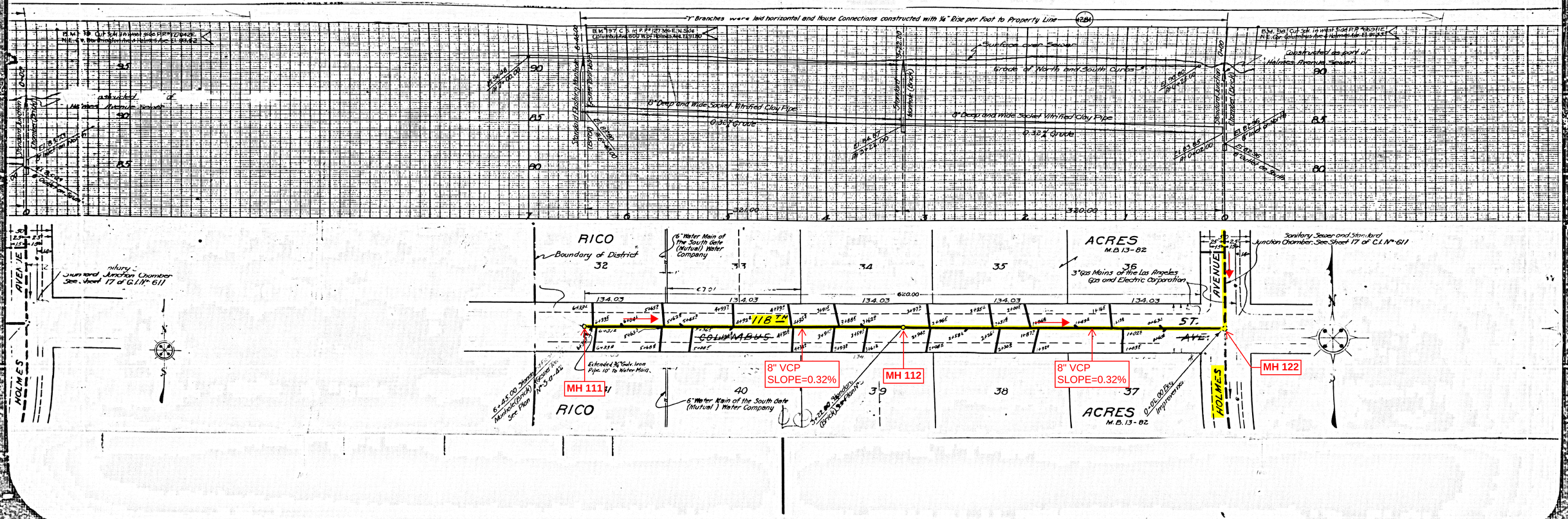
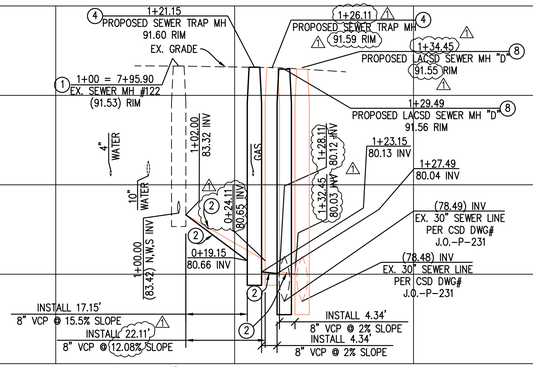


APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-118TH ST AND HOLMES AVE.



APPENDIX C: TRUNK CONNECTION SEWER AS-BUILT-118TH ST AND HOLMES AVE.

P.C. 12535 PAGE 2



NO LA COUNTY PUBLIC WORKS CHARGES FOR CONNECTION

SEE LOS ANGELES COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES (562) 908-4288, EXT. 2727

SCALE: VERT. 1" = 4'
HORIZ. 1" = 20'

DOUBLE SCALE
(when applicable)

EIMP 2020000369

REVIEWED BY LAND DEVELOPMENT DIVISION

BY _____
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION
DATE 09/23/2020

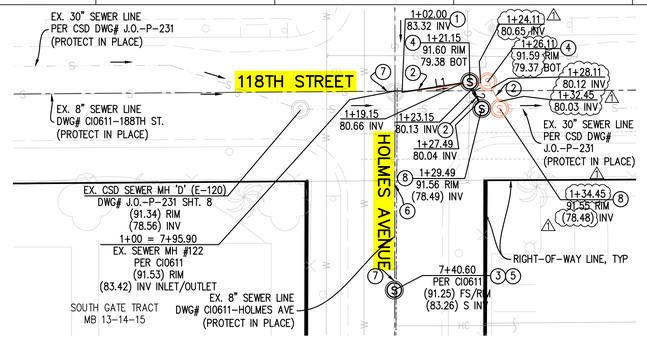
NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	MOVE MANHOLES 5' EAST	GA		3/10/21

CONSTRUCTION NOTES — QUANTITIES

1	BREAK EX. SEWER MANHOLE AND FORM NEW CHANNEL IN BASE PER SPPWC PLAN # 208-2.	1 EA
2	INSTALL 8" VCP SEWER LINE WITH PIPE BEDDING PER LA COUNTY PUBLIC WORKS PLAN # 2021-1 CASE 1.	27 LF
3	CUT, REMOVE AND DISPOSE EX. SEWER LINE.	4 LF
4	TRAP SEWER MANHOLE BASE PER LA COUNTY PUBLIC WORKS STD. PLAN # 2007-2 (S-10).	1 EA
5	CONSTRUCT SEWER MANHOLE PER SPPWC PLAN NO. 200-3.	1 EA
6	EX. 56 LF OF 8" VCP SEWER LINE PER CI0611 TO BE ABANDONED PER STD. SPEC 306-3.3.	56 LF
7	CLOSE THE OUTLET WITH BRICK AND MORTAR.	1 EA
8	CONSTRUCT SEWER MANHOLE 'D' PER LACSD STD. DWG. S-A-204 AND MANHOLE DETAIL SHOWN ON PAGE 3.	1 EA
9	INSTALL 4" VCP AT 2% SLOPE (MIN.) WITH PIPE BEDDING PER COUNTY STD. DWG.	40 LF
10	INSTALL 6" VCP AT 2% SLOPE (MIN.) WITH PIPE BEDDING PER COUNTY STD. DWG.	40 LF

LINE TABLE		
TAG	BEARING	LENGTH
L1	N83°10'22"E	22.11'
L2	N30°00'00"E	4.34'

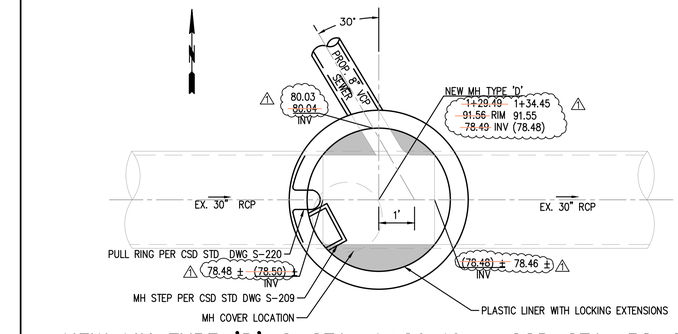
BASIS OF BEARING:
THE BASIS OF BEARINGS IF THE CENTERLINE OF HOLMES AVENUE WHICH BEARS
N 00°05'00 E PER MB 13/82.





PLAN
SCALE: 1" = 20'
12.5 0 25 50

P.C. 12535 PAGE 3

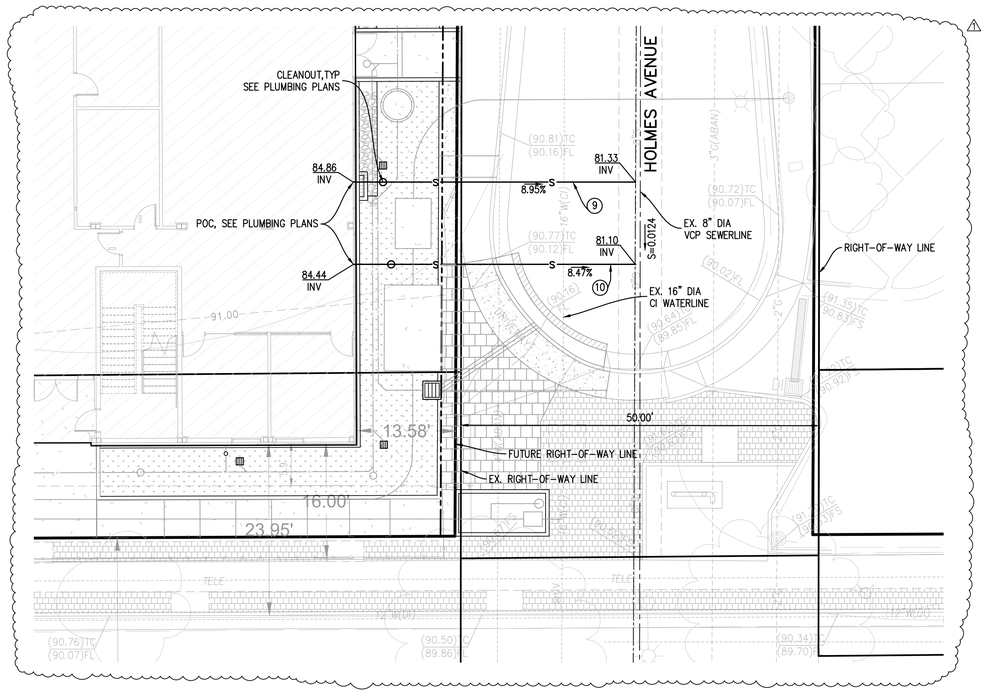


NEW MH TYPE 'D' @ STA. 1+29.49 = CSD STA. 58+81.23 PER JO-p-231

SCALE 1/2" = 1'

SEWER MANHOLE NOTES:

1. NOTIFY THE COUNTY SANITATION DISTRICTS (CSD) CONSTRUCTION MANAGEMENT SECTION HEAD AT (310) 830-8050 AT LEAST 5 WORKING DAYS PRIOR TO START OF WORK ON THE CSD MANHOLE TO ARRANGE FOR INSPECTION.
2. VERIFY EXISTING SEWER INVERTS PRIOR TO CONSTRUCTION.
3. SEND MH SHORING, TRAFFIC PLATING (WHEN APPLICABLE, SEE NOTE 4), 1.5 SACK SLURRY MIX (HAVING 141 POUNDS OF CEMENT PER CUBIC YARD OF SLURRY) AND FLOW-THRU PLUG TO THE CSD SEWER DESIGN SECTION FOR APPROVAL PRIOR OF THE START OF CONSTRUCTION. ALLOW 3 WEEKS FOR REVIEW OF EACH SUBMITTAL.
4. WHENEVER VEHICULAR TRAFFIC IS REQUIRED TO BE RESTORED OVER AN EXCAVATION, STEEL PLATE BRIDGING SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. FOR EXCAVATION WITH LESS THAN 4'-0", THE STEEL PLATE BRIDGING SHALL BE PER THE DISTRICT'S STANDARD DRAWING NO. S-A-231 OR S-A-232 (WHERE APPLICABLE). FOR EXCAVATION WIDTHS GREATER THAN 4'-0", THE STEEL PLATE BRIDGING SHALL BE DESIGNED AND STAMPED BY A CIVIL ENGINEER OR A STRUCTURAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA AND SHALL BE SUBMITTED TO THE DISTRICTS FOR ACCEPTANCE PRIOR TO START OF WORK. NOTE THAT THE USE OF HYDRAULIC SHORING SHALL NOT BE USED IN CONJUNCTION WITH TRAFFIC PLATING.
5. WHEN ALLOWED BY THE CSD INSPECTOR, CORE DRILL MANHOLE BASE, INSTALL THE PROPOSED SEWER PIPE, INSERT A FLEXIBLE FLOW-THRU PLUG IN THE MANHOLE TO CONTAIN THE FLOW, AND COMPLETE CHANNELIZATION OF THE MANHOLE BASE IN THE DRY. AS OF 02/2020, THE PEAK FLOW IN THE 30-INCH TRUNK SEWER WAS 5.51 CFS. THIS WORK MAY HAVE TO BE PERFORMED DURING OVERNIGHT HOURS WHEN FLOWS ARE LOWER, WHEN USING A FLOW THROUGH PLUG, THE CONTRACTOR SHALL TAKE BEFORE AND AFTER PICTURES OF THE FLOW-THROUGH PLUG INSTALLATION INSIDE THE MANHOLE TO DOCUMENT THE MH CONDITION.
6. PROTECT EXISTING BRICK PR CONCRETE MANHOLE SHAFT DURING CONSTRUCTION. BACKFILL AROUND MANHOLE USING 1.5 SACK CEMENT SLURRY.
7. PERFORM VIDEO INSPECTION OF THE COMPLETED CONNECTION INSIDE THE MANHOLE AND PROVIDE VIDEO TO CSD INSPECTOR TO CONFIRM SATISFACTORY COMPLETION OF THE WORK.
8. NOTE THAT THE MH DETAIL IS A SCHEMATIC AND MAY NOT BE A TRUE REPRESENTATION OF THE EXISTING MH IN THE FIELD.



NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	ADJUSTED INV,MH STA.	GA		3/10/21
	ADDED SEWER LATERAL INFO.			

NO CITY CHARGES/
NO LA COUNTY PUBLIC WORKS CHARGES FOR CONNECTION

SEE LOS ANGELES COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES (562) 908-4288, EXT. 2727

SCALE: VERT. 1" = 4'
HORIZ. 1" = 40'

DOUBLE SCALE
(when applicable)

EIMP 2020000369

REVIEWED BY LAND DEVELOPMENT DIVISION

BY _____
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION
DATE 09/23/2020



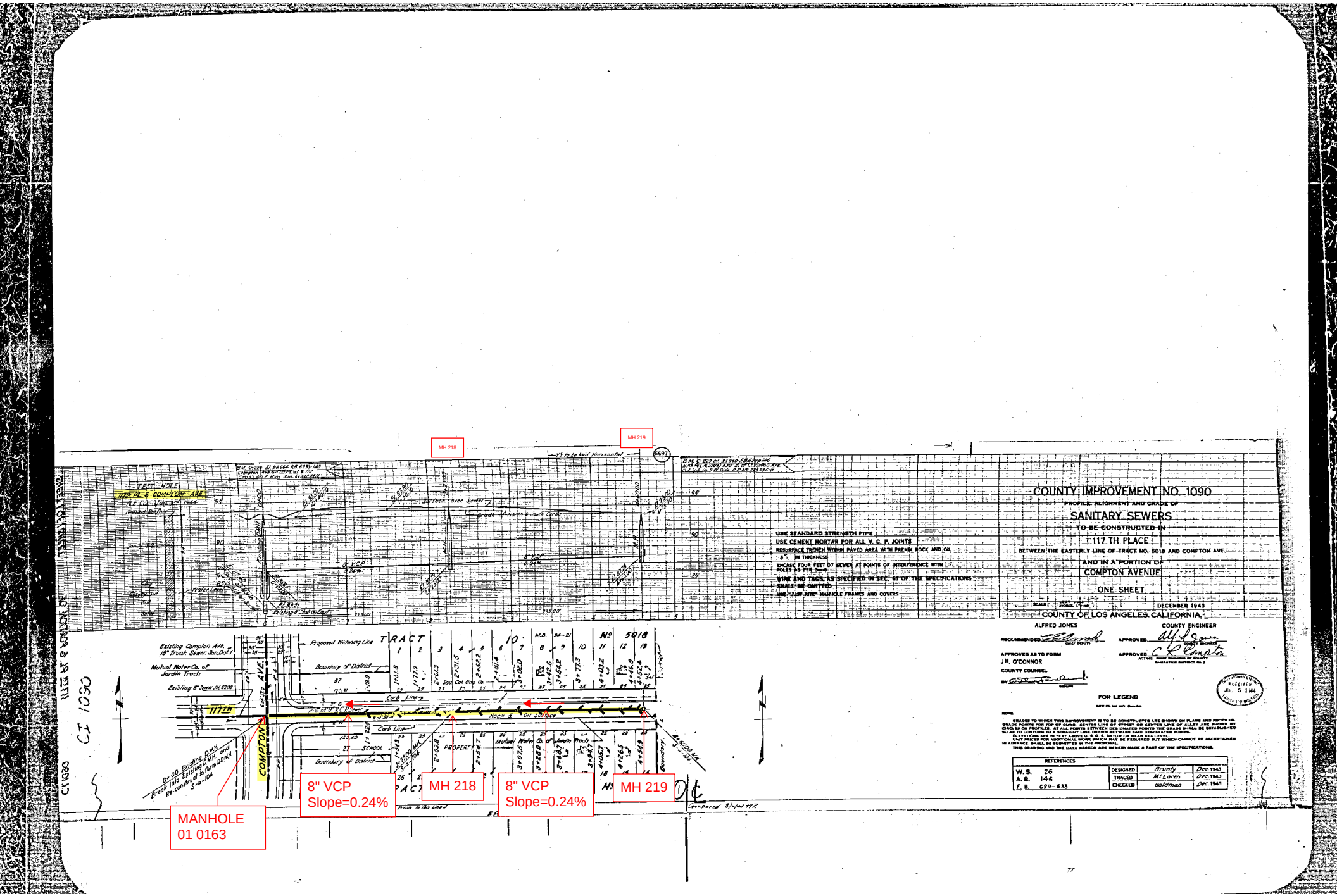
PLAN
SCALE: 1/2" = 1'
25 0 50 100

PPS-SS-DL – 05/2019

LACDPW CHILD AND FAMILY WELLBEING CENTER 1741 E. 120TH STREET, LOS ANGELES, CA 90059 PC12535 SHEET 2

DATE: 01/14/21 TIME: FILE: C:\Projects\GATS&M\Cornerstone\MLK Child & Wellness Center\MLK SEWER OFFSITE.DWG

APPENDIX C: 8" VCP PIPE SEWER AS-BUILT-117TH PL AND COMPTON AVE.



Appendix D:

Los Angeles County Willowbrook Zoning Map

Exhibit D - Los Angeles County Willowbrook Zoning Map

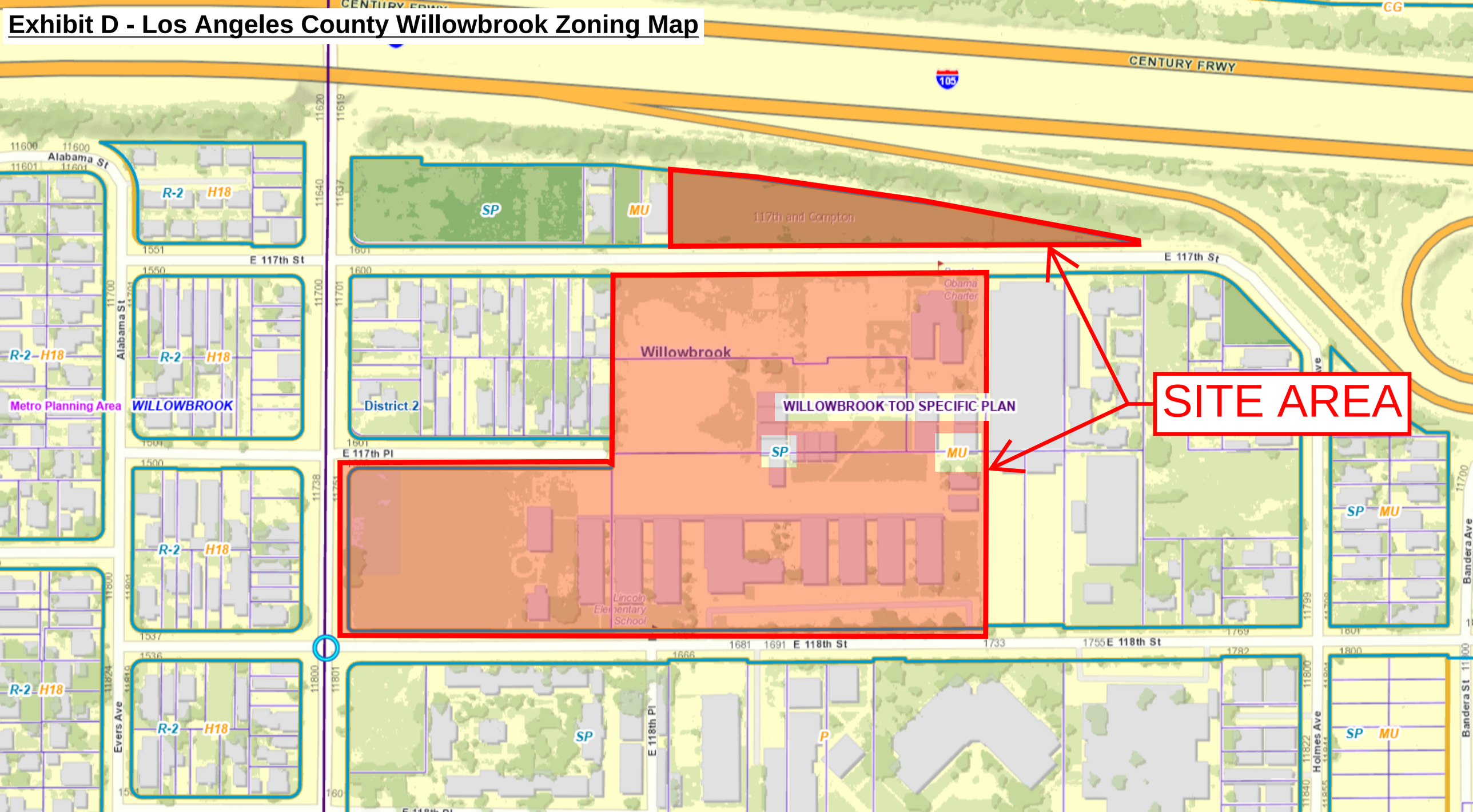
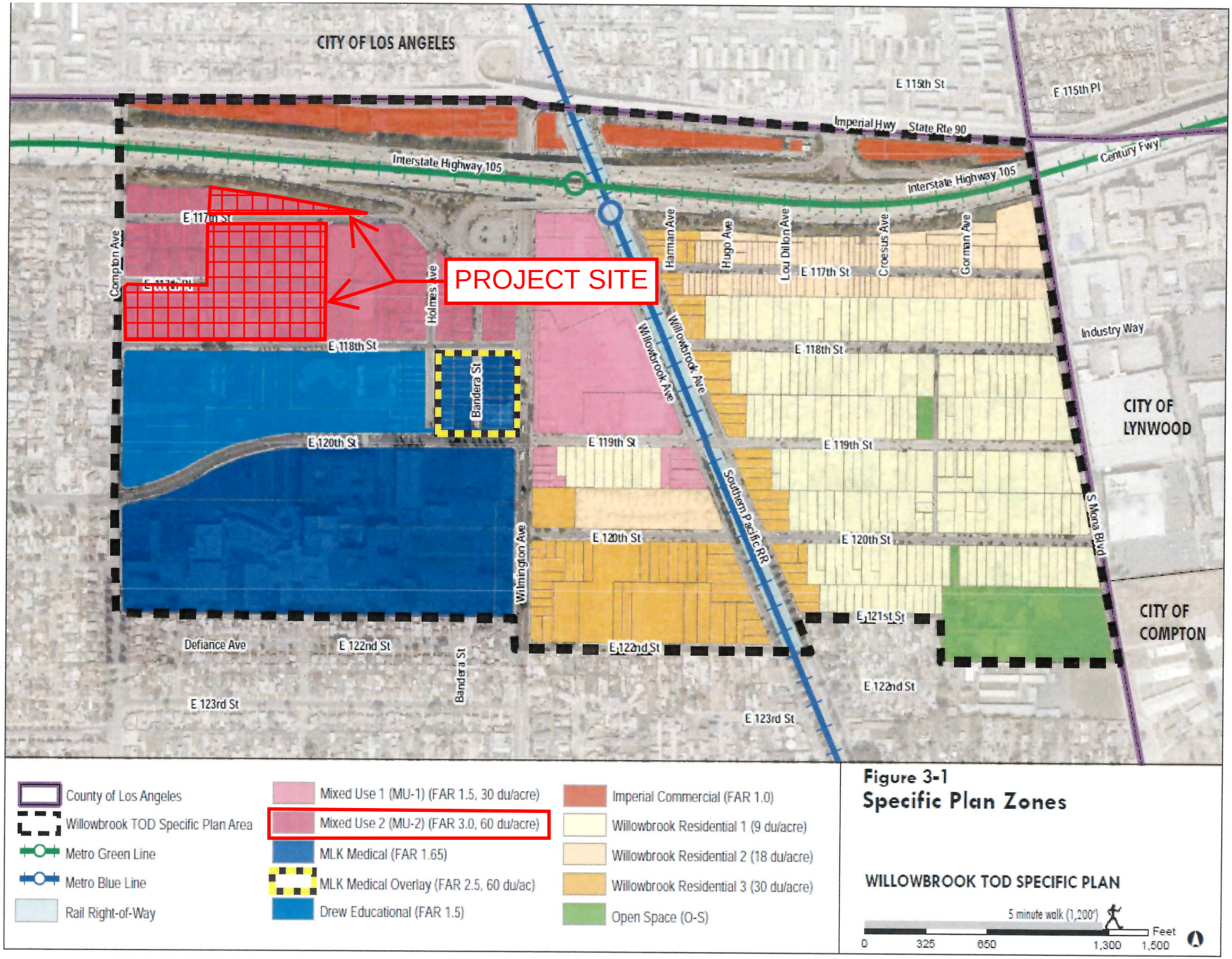
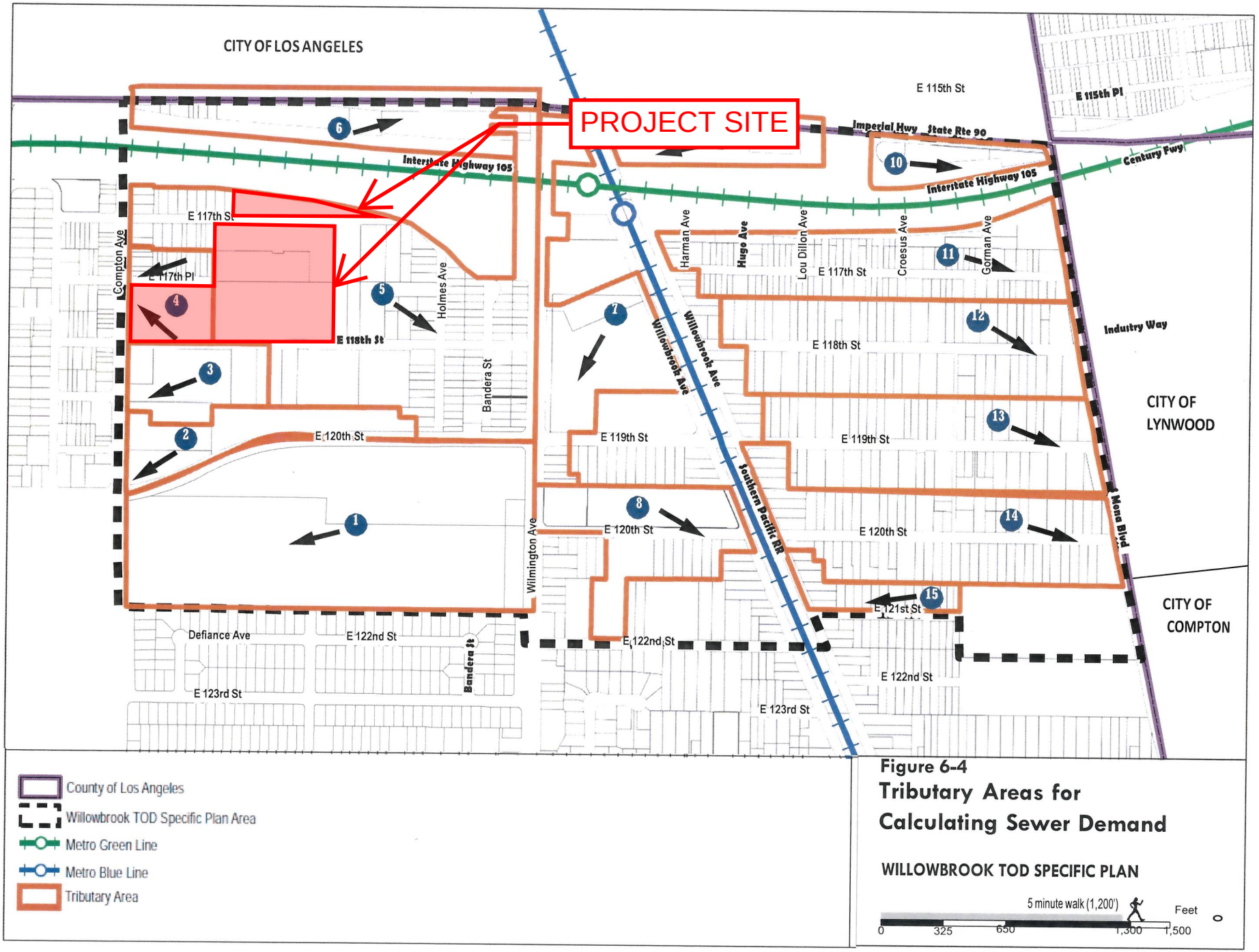


Exhibit D - Los Angeles County Willowbrook Zoning Map




CITY OF LOS ANGELES
PROJECT SITE
E 115th St
E 115th Pl
Imperial Hwy State Rte 90
Interstate Highway 105
Century Fwy
E 117th St
E 117th Pl
Compton Ave
Holmes Ave
Harman Ave
Hugo Ave
Lou Dillon Ave
Croesus Ave
Gorman Ave
E 118th St
Bandera St
Willowbrook Ave
Industry Way
CITY OF LYNWOOD
E 119th St
E 120th St
Wilmington Ave
Southern Pacific RR
Mona Blvd
CITY OF COMPTON
E 121st St
Defiance Ave
E 122nd St
E 123rd St
1
2
3
4
5
6
7
8
10
11
12
13
14
15
County of Los Angeles
Willowbrook TOD Specific Plan Area
Metro Green Line
Metro Blue Line
Tributary Area
Figure 6-4
Tributary Areas for Calculating Sewer Demand
WILLOWBROOK TOD SPECIFIC PLAN
5 minute walk (1,200')
Feet
0
325
650
1,300
1,500

Appendix E:

Los Angeles County Sewer Flow Coefficients

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	150	gal/D.U.
1 bedroom dwelling units	Apt	200	gal/D.U.
2 bedroom dwelling units	Apt	250	gal/D.U.
3 bedroom or more dwelling units	Apt	300	gal/D.U.
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	MB	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

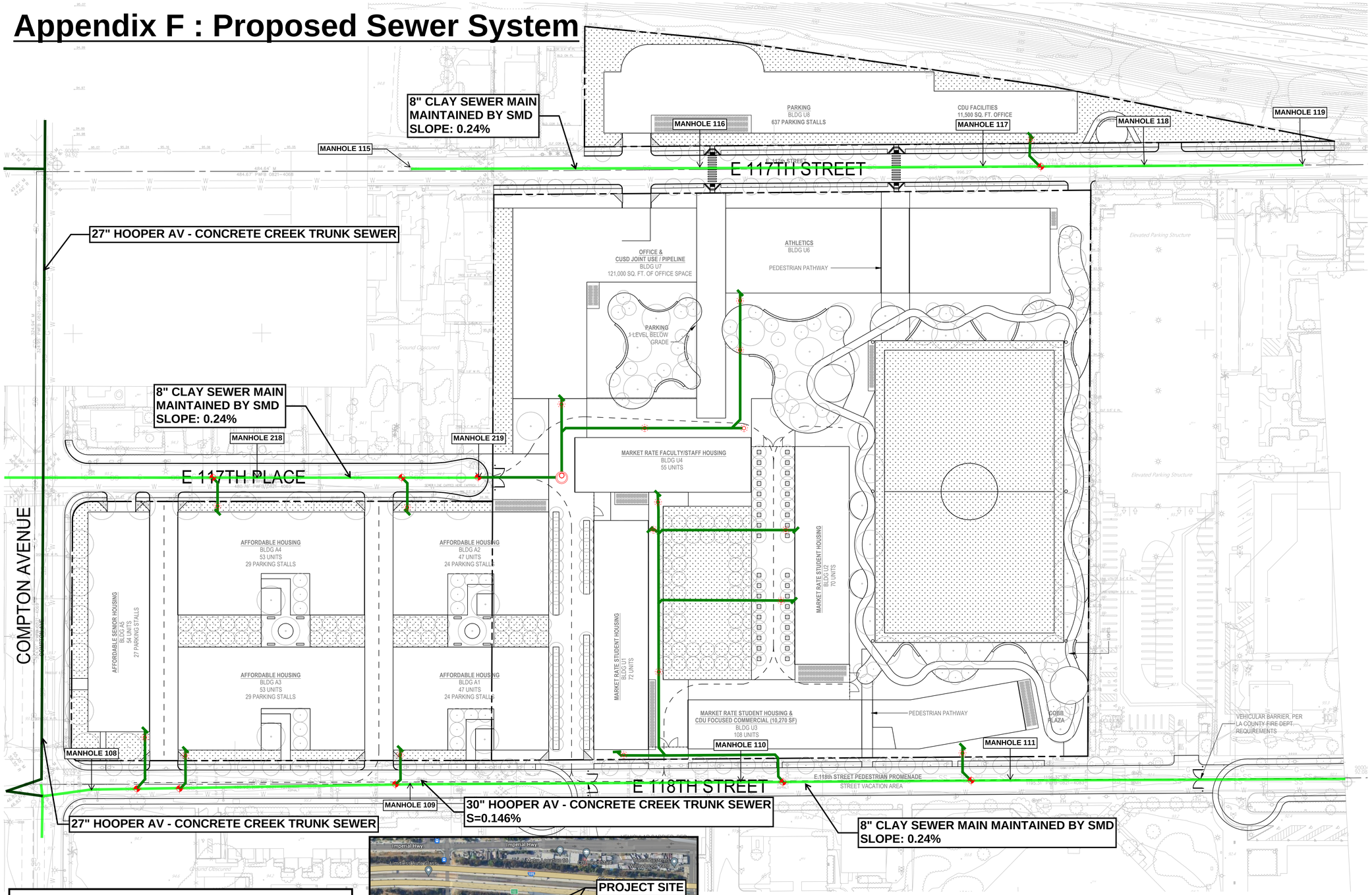
Zone	Coefficient (cfs/Acre)
Agriculture ----------	0.001
Residential*:	
R-1 ----------	0.004
R-2 ----------	0.008
R-3 ----------	0.012
R-4 ----------	0.016*
Commercial:	
C-1 through C-4 ----------	0.015*
Heavy Industrial:	
M-1 through M-4 ----------	0.021*

* Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown

* Use 0.001 (cfs/unit) for condominiums only

Appendix F:
Proposed Sewer System

Appendix F : Proposed Sewer System



LEGEND

- EXISTING SMD SEWER LINE
- PROPOSED 6" SEWER LINE
- EXISTING TRUNK SEWER LINE
- PROPOSED CLEAN OUT
- PROPOSED MANHOLE


PROJECT SITE
Imperial Hwy
E 117th St
E 118th St
E 120th St
Wilmington Ave
Willowbrook Ave
Compton Ave
Alameda St
Rancho Dr
Willowbrook Library
Magic Johnson Park
MLK Jr Learning Center
Watts Labor Community Action Committee
Watts Century Latino Organization
Watts Gang Task Force
Watts Healing Wall
Watts Labor Community Action Committee
Watts Towers Arts Center
Watts Towers Recreation Center
Watts Transit Center
Willowbrook Station
Willowbrook/Rosa Parks Station
Wilmington Ave Station
Will Rogers Park
Will Rogers Park Community Building
Will Rogers Park Pool
Will Rogers Park Tennis Courts
Will Rogers Park Wading Pool
Will Rogers Park Watts Skate Park
Will Rogers Park Watts Skate Park Restroom
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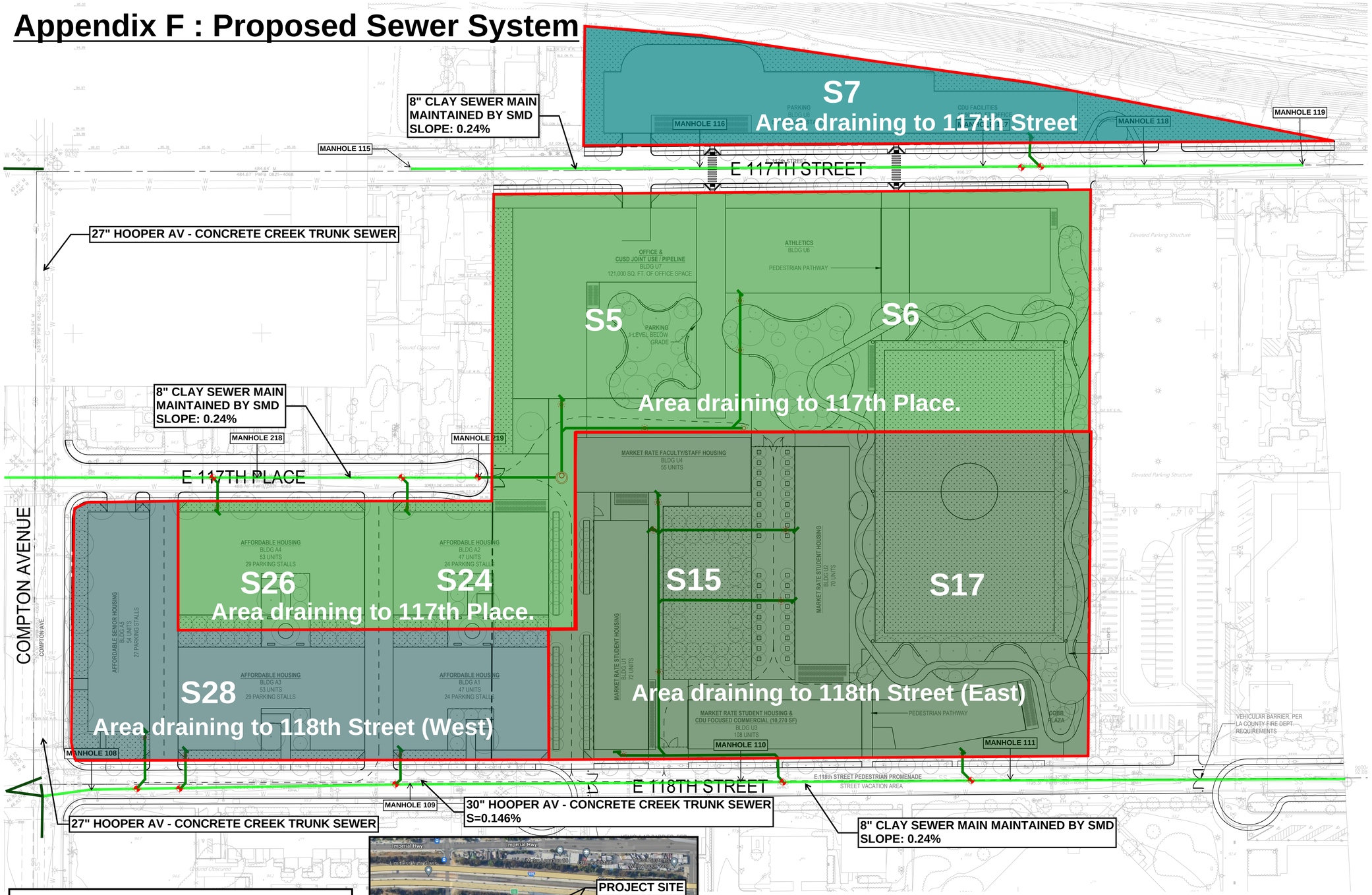
Will Rogers Park Watts Skate Park Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Snack Shack
Will Rogers Park Watts Skate Park Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Storage
Will Rogers Park Watts Skate Park Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot
Will Rogers Park Watts Skate Park Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Restroom
Will Rogers Park Watts Skate Park Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Tot Lot Snack Shack
Will Rogers Park Watts Skate Park Tot Lot

Appendix F : Proposed Sewer System





LEGEND

- EXISTING SMD SEWER LINE
- PROPOSED 6" SEWER LINE
- EXISTING TRUNK SEWER LINE
- PROPOSED CLEAN OUT
- PROPOSED MANHOLE

N

0 25' 50'

SCALE: 1"=50'

P:\2021\2100176 Willowbrook Wellness Ctr North Campus\5 CAD\Sheets\2100176-C1.40UT.dwg, Oct 02, 2024 - 4:17pm

CMWC, LLC

21001.00

1667 EAST 18TH STREET
LOS ANGELES, CALIFORNIA 90059

Frederick Fisher and **Partners**
12248 Santa Monica Blvd.
Los Angeles, CA 90025

CHARLES R. DREW UNIVERSITY OF MEDICINE AND SCIENCE — CDU

CENTURY

ISSUED FOR	DATE
1 SITE PLAN - RESUBMITTAL II	09/17/2024

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER N. BORNHOLDT — No. C86264 — Exp. 3/31/25 — CIVIL — STATE OF CALIFORNIA

kpff
700 South Flower Street
Suite 2100
Los Angeles, CA 90017
O: 213.418.0201
www.kpff.com

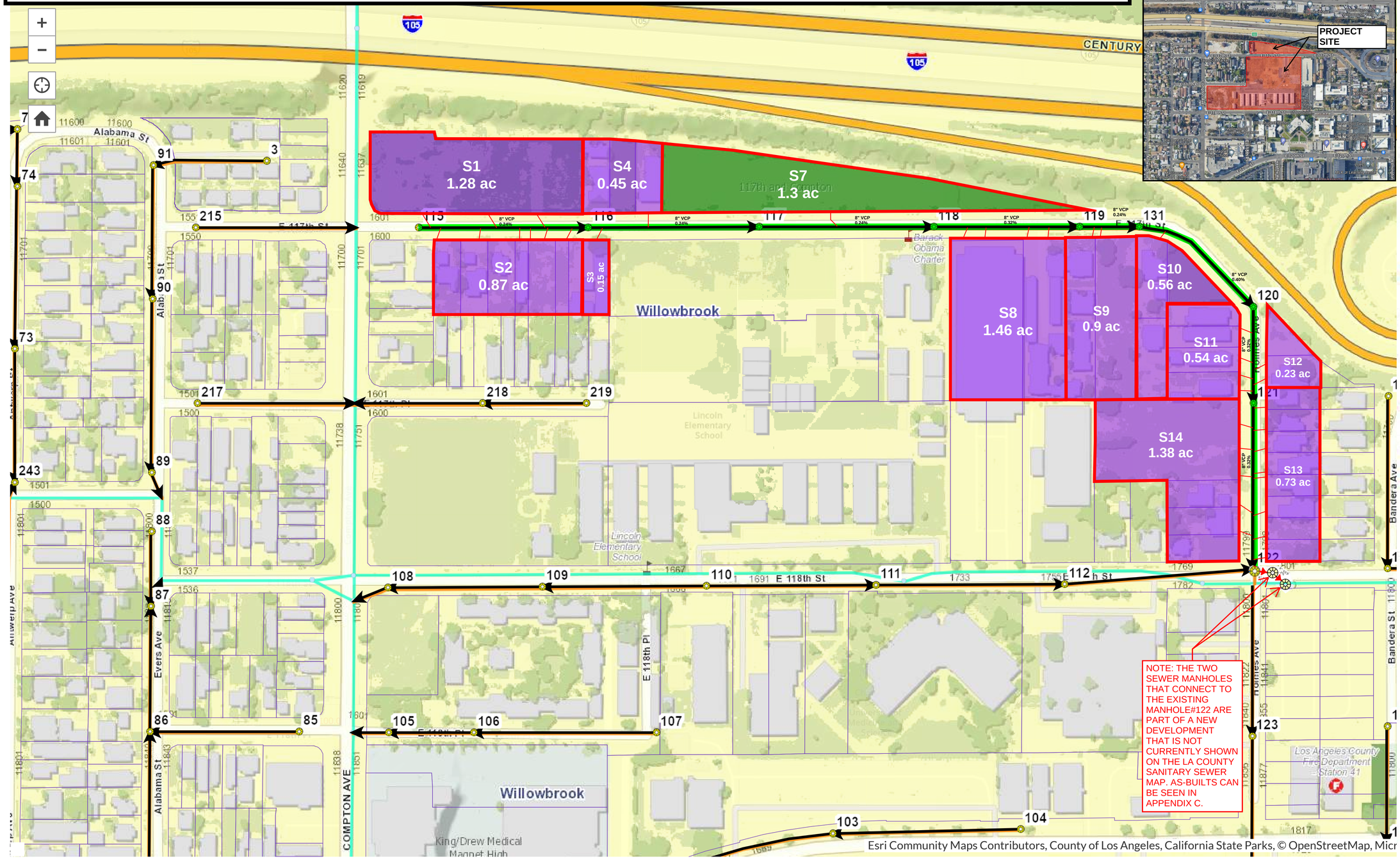
UTILITY PLAN

C1.40

Appendix G:
Sewer Capacity Analysis

Appendix G - Sewer Capacity Analysis

SEWER ZONING AREA EXHIBIT 117TH STREET & HOLMES AVE.



0 100 200ft

SCALE: 1" = 100'

Legend

SMD Sewer Manholes

Other

Direction of Flow

SMD Sewer Lines

Clay

Lined Clay

Cement

Lined Cement

ABS Plastic

Other

Trunk Manholes

Trunk Main Lines

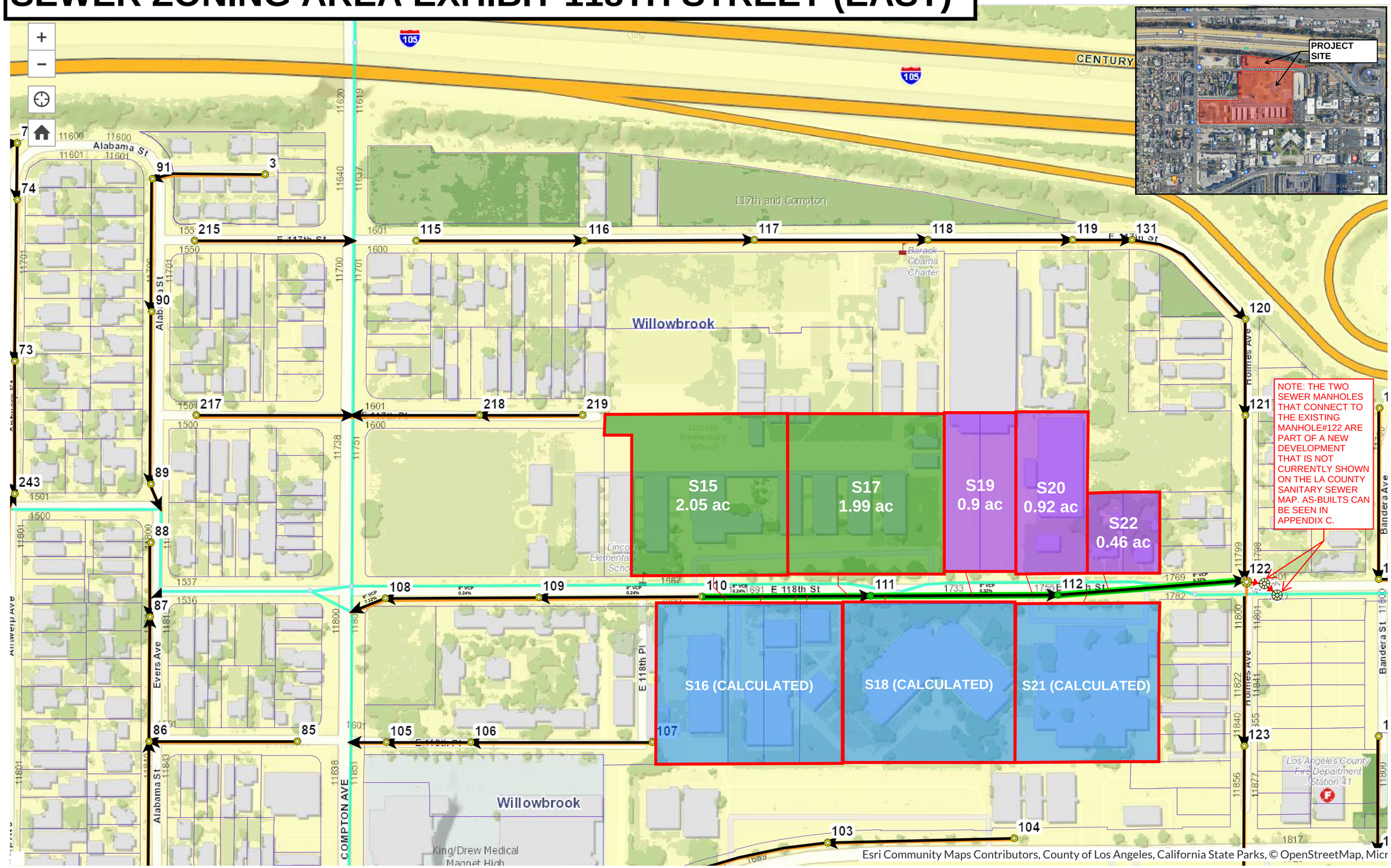
ZONING

MU-2 (0.06)

Calculated

Appendix G - Sewer Capacity Analysis

SEWER ZONING AREA EXHIBIT 118TH STREET (EAST)



0 100 200ft

SCALE: 1" = 100'

Legend

SMD Sewer Manholes

- Other

Direction of Flow

SMD Sewer Lines

- Clay
- Lined Clay
- Cement
- Lined Cement
- ABS Plastic
- Other

Trunk Manholes

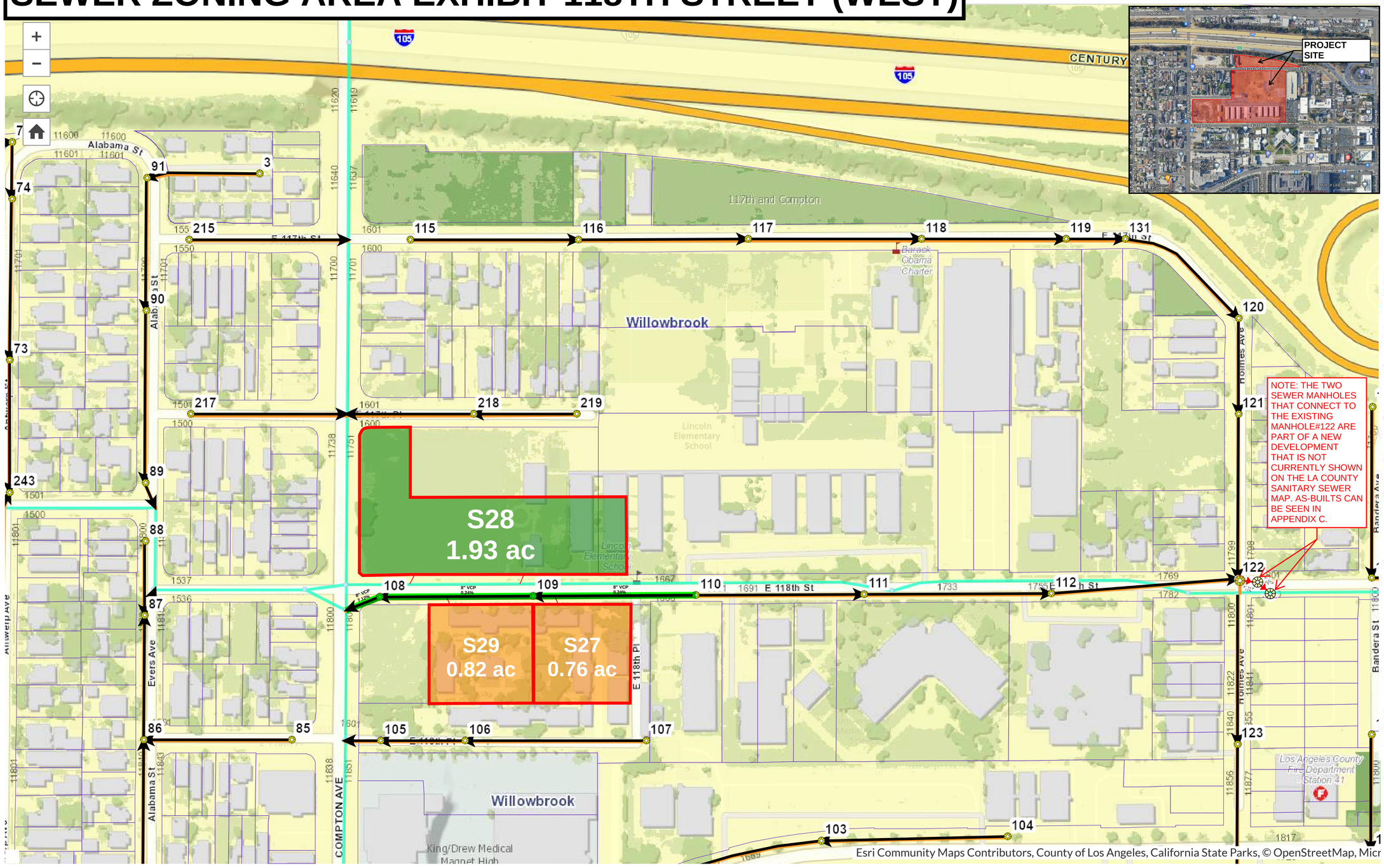
Trunk Main Lines

ZONING

- MU-2 (0.06)
- Calculated
- DREW EDUCATIONAL (CALCULATED)

Appendix G - Sewer Capacity Analysis

SEWER ZONING AREA EXHIBIT 118TH STREET (WEST)



0 100 200ft

SCALE: 1" = 100'

Legend

SMD Sewer Manholes

- Other

Direction of Flow

SMD Sewer Lines

- Clay
- Lined Clay
- Cement
- Lined Cement
- ABS Plastic
- Other

Trunk Manholes

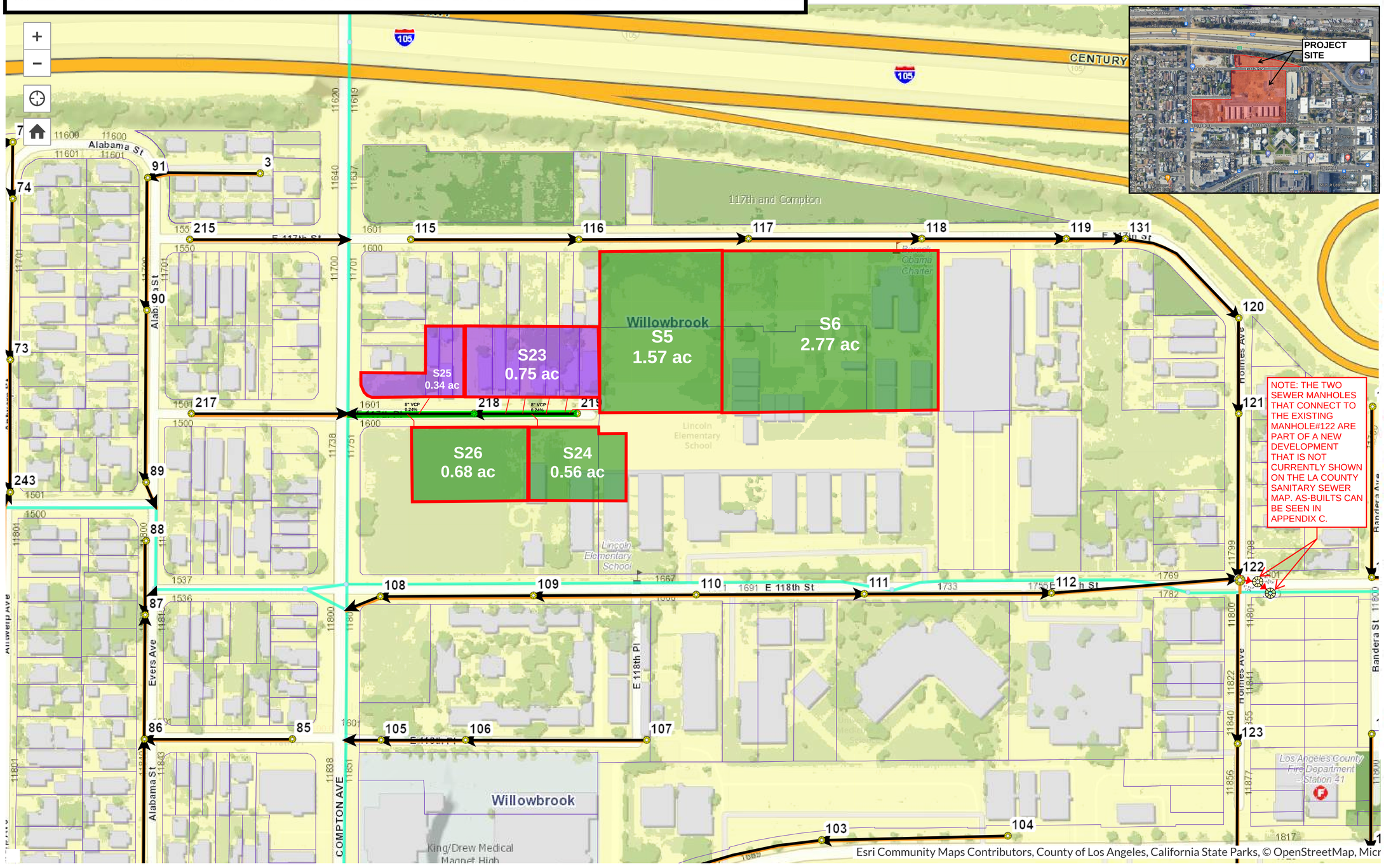
Trunk Main Lines

ZONING

- Calculated
- R-3 (0.03)

Appendix G - Sewer Capacity Analysis

SEWER ZONING AREA EXHIBIT 117TH PLACE



0 100 200ft

SCALE: 1" = 100'

Legend

SMD Sewer Manholes

- Other

Direction of Flow

SMD Sewer Lines

- Clay
- Lined Clay
- Cement
- Lined Cement
- ABS Plastic
- Other

Trunk Manholes

Trunk Main Lines

ZONING

- MU-2 (0.03)
- Calculated

Appendix G - Sewer Capacity Analysis

Proposed Flow Assuming Development Densities Per Los Angeles County TOD

Sewer Area Study Table

* Calculated using Kutter's Formula with n=0.013
** Design capacity keeps three decimal places at least
*** Based on current land use and coefficients per LA County, (Attach supporting calculations)
**** For pipes < 15", design capacity of the sewer mainline is defined as 1/2 full = 100% capacity (d/D)
***** For pipes ≥ 15", design capacity of the sewer mainline is defined as 3/4 full = 100% capacity (d/D)

Street Name		Segment		Pipe		* Design capacity		Area Tag	Area (Acres)	Area Description	Zoning Coeff.	Calculated Flow (cfs)	***Cumulative Calculated Flow (cfs)	PC or CI Construction Plan #	%Full	Comment	Jurisdiction
		M.H. #	M.H. #	Size (in.)	Slope (%)	1/2 Full(<15")	3/4 Full(>15")								Cumulative Flow / Capacity		
117TH STREET																	
117TH STREET		115	116	8	0.24	0.270		S1	1.28	MU-2	0.060	0.077	0.077		28.44%	Under Capacity	LA County
		115	116	8	0.24	0.270		S2	0.87	MU-2	0.060	0.052	0.129		47.78%	Under Capacity	LA County
		116	117	8	0.24	0.270		S3	0.15	MU-2	0.060	0.009	0.138		51.11%	Under Capacity	LA County
		116	117	8	0.24	0.270		S4	0.45	MU-2	0.060	0.027	0.165		61.11%	Under Capacity	LA County
	Project Site	117	118	8	0.24	0.270		S7	1.30	Parking Structure (U8)		0.025	0.190		70.37%	Under Capacity	LA County
		118	119	8	0.32	0.310		S8	1.46	MU-2	0.060	0.088	0.278		89.55%	Under Capacity	LA County
		119	131	8	0.24	0.270		S9	0.90	MU-2	0.060	0.054	0.332		122.81%	Under Capacity	LA County
		131	120	8	0.40	0.350		S10	0.56	MU-2	0.060	0.034	0.365		104.34%	Under Capacity	LA County
HOLMES AVE.		120	121	8	0.32	0.310		S11	0.54	MU-2	0.060	0.032	0.398		128.26%	Under Capacity	LA County
		120	121	8	0.32	0.310		S12	0.23	MU-2	0.060	0.014	0.411		132.71%	Under Capacity	LA County
		121	122	8	0.32	0.310		S13	0.73	MU-2	0.060	0.044	0.455		146.84%	Under Capacity	LA County
		121	122	8	0.32	0.310		S14	1.38	MU-2	0.060	0.083	0.538		173.55%	Over Capacity. Requires Flow Monitoring	LA County
118TH STREET TRUNK		121	122										0.538				
		112	122										0.450				
		Total Flow											0.988				
		122	1	8	12.00	1.920							0.988		51.46%	Under Capacity	LA County
		1	2	8	2.00	0.783							0.988		126.18%	Under Capacity	LA County
118TH STREET (EAST)																	
118TH STREET (EAST)	Project Site	110	111	8	0.24	0.270		S15	2.05	Apartment Buildings (U1, U3, U4)		0.198	0.198		73.33%	Under Capacity	LA County
		110	111	8	0.24	0.270		S16		Drew Educational		0.015	0.213		78.89%	Under Capacity	LA County
	Project Site	110	111	8	0.24	0.270		S17	1.99	Apartment Buildings (U2)		0.063	0.276		102.22%	Under Capacity	LA County
		111	112	8	0.32	0.310		S18		Drew Educational		0.023	0.299		96.45%	Under Capacity	LA County
		111	112	8	0.32	0.310		S19	0.90	MU-2	0.060	0.054	0.353		113.87%	Under Capacity	LA County
		111	112	8	0.32	0.310		S20	0.92	MU-2	0.060	0.055	0.408		131.68%	Under Capacity	LA County
		112	122	8	0.32	0.310		S21		Drew Educational		0.014	0.422		136.19%	Under Capacity	LA County
		112	122	8	0.32	0.310		S22	0.46	MU-2	0.060	0.028	0.450		145.10%	Under Capacity	LA County
118TH STREET TRUNK		121	122										0.538				
		112	122										0.450				
		Total Flow											0.988				
		122	1	8	12.00	1.920							0.988		51.46%	Under Capacity	LA County
		1	2	8	2.00	0.783							0.988		126.18%	Under Capacity	LA County
118TH STREET (WEST)																	
118TH STREET (WEST)		110	109	8	0.24	0.270		S27	0.76	R-3	0.030	0.023	0.023		8.44%	Under Capacity	LA County
	Project Site	109	108	8	0.24	0.270		S28	1.93	Affordable Housing Apartment (A1, A3, A5)		0.138	0.161		59.56%	Under Capacity	LA County
		109	108	8	0.24	0.270		S29	0.82	R-3	0.030	0.025	0.185		68.67%	Under Capacity	LA County
117TH PLACE																	
117TH PLACE	Project Site	116	117	8	0.24	0.270		S5	1.57	Office Building (U7)		0.094	0.094		34.63%	Under Capacity	LA County
	Project Site	117	118	8	0.24	0.270		S6	2.77	University or College (U6)		0.122	0.216		79.81%	Under Capacity	LA County
		219	218	8	0.24	0.270		S23	0.75	MU-2	0.060	0.045	0.261		96.48%	Under Capacity	LA County
	Project Site	219	218	8	0.24	0.270		S24	1.12	Affordable Housing Apartment (A2)		0.045	0.306		113.15%	Under Capacity	LA County
		218	01 0163	8	0.24	0.270		S25	0.34	MU-2	0.060	0.020	0.326		120.70%	Under Capacity	LA County
	Project Site	218	01 0163	8	0.24	0.270		S26	1.99	Affordable Housing Apartment (A4)		0.050	0.376		139.22%	Under Capacity	LA County

*Note: This analysis is superseded by the analysis based on flow monitoring results,
see "Exhibit G - Sewer Capacity Analysis - Proposed Flow According to Flow Monitoring Data"

Appendix G - Sewer Capacity Analysis

Proposed Flow According to Flow Monitoring Data

Sewer Area Study Table

* Calculated using Kutter's Formula with n=0.013

** Design capacity keeps three decimal places at least

*** Based on current land use and coefficients per LA County, (Attach supporting calculations)

**** For pipes < 15", design capacity of the sewer mainline is defined as 1/2 full = 100% capacity (d/D)

***** For pipes ≥ 15", design capacity of the sewer mainline is defined as 3/4 full = 100% capacity (d/D)

Street Name		Segment		Pipe		* Design capacity			Area Tag	Area (Acres)	Area Description	Zoning Coeff.	Calculated Flow (cfs)	***Cumulative Calculated Flow (cfs)	PC or CI Construction Plan #	%Full	Comment	Jurisdiction
		M.H. #	M.H. #	Size (in.)	Slope (%)	1/2 Full(<15")	3/4 Full(>15")	100% Full(<15")								Cumulative Flow / Capacity		
117TH STREET																		
117th STREET	Project Site	117	118	8	0.24	0.270			S7	1.30	Parking Structure (U8)		0.025	0.025		9.26%	Under Capacity	LA County
HOLMES AVE.	NOTE: Calculated Flow (cfs) was adjusted for physical flow monitoring data, in which d/D=0.13.	121	122	8	0.32	0.310			Not Applicable.	Not Applicable.	Based on Physical Flow Monitoring Data from Temporary Wastewater Flow Monitoring Report. See Appendix I.	Not Applicable. Based on Physical Flow Monitoring Data. See Appendix I.	0.0806	0.106		34.06%	Under Capacity	LA County
		121	122	8	0.32	0.310			S13	0.73	MU-2	0.060	0.044	0.149		48.19%	Under Capacity	LA County
		121	122	8	0.32	0.310			S14	1.38	MU-2	0.060	0.083	0.232		74.90%	Under Capacity	LA County
118TH STREET TRUNK		121	122											0.232				
		112	122											0.450				
		Total Flow												0.682				
		122	1	8	12.00	1.920								0.682		35.52%	Under Capacity	LA County
		1	2	8	2.00	0.783								0.682		87.10%	Under Capacity	LA County
118TH STREET (EAST)																		
118TH STREET (EAST)	Project Site	110	111	8	0.24	0.270			S15	2.05	Apartment Buildings (U1, U3, U4)		0.198	0.198		73.33%	Under Capacity	LA County
		110	111	8	0.24	0.270			S16		Drew Educational		0.015	0.213		78.89%	Under Capacity	LA County
	Project Site	110	111	8	0.24	0.270			S17	1.99	Apartment Buildings (U2)		0.063	0.276		102.22%	Under Capacity	LA County
		111	112	8	0.32	0.310			S18		Drew Educational		0.023	0.299		96.45%	Under Capacity	LA County
		111	112	8	0.32	0.310			S19	0.90	MU-2	0.060	0.054	0.353		113.87%	Under Capacity	LA County
		111	112	8	0.32	0.310			S20	0.92	MU-2	0.060	0.055	0.408		131.68%	Under Capacity	LA County
		112	122	8	0.32	0.310			S21		Drew Educational		0.014	0.422		136.19%	Under Capacity	LA County
		112	122	8	0.32	0.310			S22	0.46	MU-2	0.060	0.028	0.450		145.10%	Under Capacity	LA County
118TH STREET TRUNK		121	122											0.232				
		112	122											0.450				
		Total Flow												0.682				
		122	1	8	12.00	1.920								0.682		35.52%	Under Capacity	LA County
		1	2	8	2.00	0.783								0.682		87.10%	Under Capacity	LA County

Appendix H:
Will Serve Letter

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager
1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

March 27, 2024

Ref. DOC 7179667

VIA EMAIL danny.munsterman@kpff.com and allan.daniyelyan@kpff.com

Mr. Danny Munsterman
Civil Engineer
KPFF Consulting Engineers
700 South Flower Street, Suite 2100
Los Angeles, CA 90017

Dear Mr. Munsterman:

Will Serve Letter for 1667 East 118th Street

The Los Angeles County Sanitation Districts (Districts) received your will serve letter request for the subject project located in unincorporated Los Angeles County on March 18, 2024. The proposed project is located within the jurisdictional boundary of District No. 1. We offer the following comments regarding sewerage service:

1. The following is a list of Districts' trunk sewers that serve the project area:

Name	Location	Size (dia.)*	Capacity (mgd)**	Peak Flow (mgd)	Last Measured
Hooper Avenue-Compton Creek Trunk Sewer	Compton Avenue at East 118th Street	33	13	3.9	2019
Compton Avenue Trunk Sewer	Compton Avenue at 117th Place	18	2.7	0.4	2019
Joint Outfall E – Unit 5 Trunk Sewer	East 118th Street at Holmes Avenue	30	10.1	2.5	2020

*diameter in inches
**million gallons per day

2. The wastewater generated by the proposed project will be treated at the A.K. Warren Water Resource Facility (formerly known as the Joint Water Pollution Control Plant) located in the City of Carson, which has a capacity of 400 mgd and currently processes an average flow of 237 mgd.

3. The expected average wastewater flow from the project, described in the application as 559 residential apartments, 116,000 square feet of office space, and a 44,500-square-foot athletics building, is 123,754 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits and select Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

4. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is used by the Districts for its capital facilities. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the

impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family Home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, please contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the applicant that the Districts intend to provide this service up to the levels that are legally permitted and to inform the applicant of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2708 or at shirlywang@lacsd.org.

Very truly yours,

Shirly Wang

Shirly Wang
Customer Service Specialist
Facilities Planning Department

SW:sw

cc: A. Schmidt
A. Howard

Appendix I:
Flow Monitoring Results

Site Report

July 31, 2024

Customer Name:	Site Address:~11730 Holmes Ave Los Angeles CA 90059	Site Name: Holmes Ave MH 121
KPFF		

Access:

MH is west of address, located on Holmes Ave

System Type		
Sanitary	Storm	Combined
X		

Install Date:
July 31, 2024
Install Time:
07:30



Map



Traffic Safety

Gas			
O2	H2S	CO	LEL
20.9%	0ppm	0ppm	0%

Flow Meter	
Meter Depth (in): 76.80"	
MH Coordinates: 33.926806, -118.240743	
Meter SN: FD10023	
Avg Measured Level (in)	0.68"
Avg Measured Velocity	1.01FPS
Multiplier	1.00

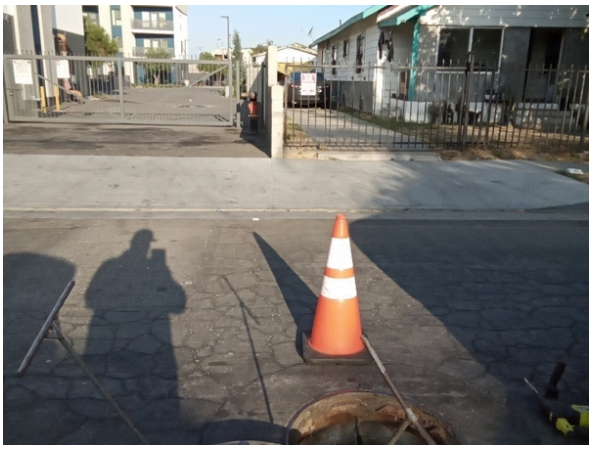
Notes
Slow to moderate open channel hydraulics

Traffic Safety
Used cones to delineate the flow of traffic.

Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth (in)	91.00"
Monitored Pipe Size (in)	8"
Inner Pipe Size (in) (In/Out)	8"/8"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Brick
Silt (in)	0.00"
Sensor Offset (in)	14.20"
Sensor Dist. to Crown (in)	6.20"
Flow Direction	South
Sensor Direction	Upstream

Customer Name: KPFF	Site Address:~11730 Holmes Ave Los Angeles CA 90059	Site Name: Holmes Ave MH 121



Site



Before Install



Installed



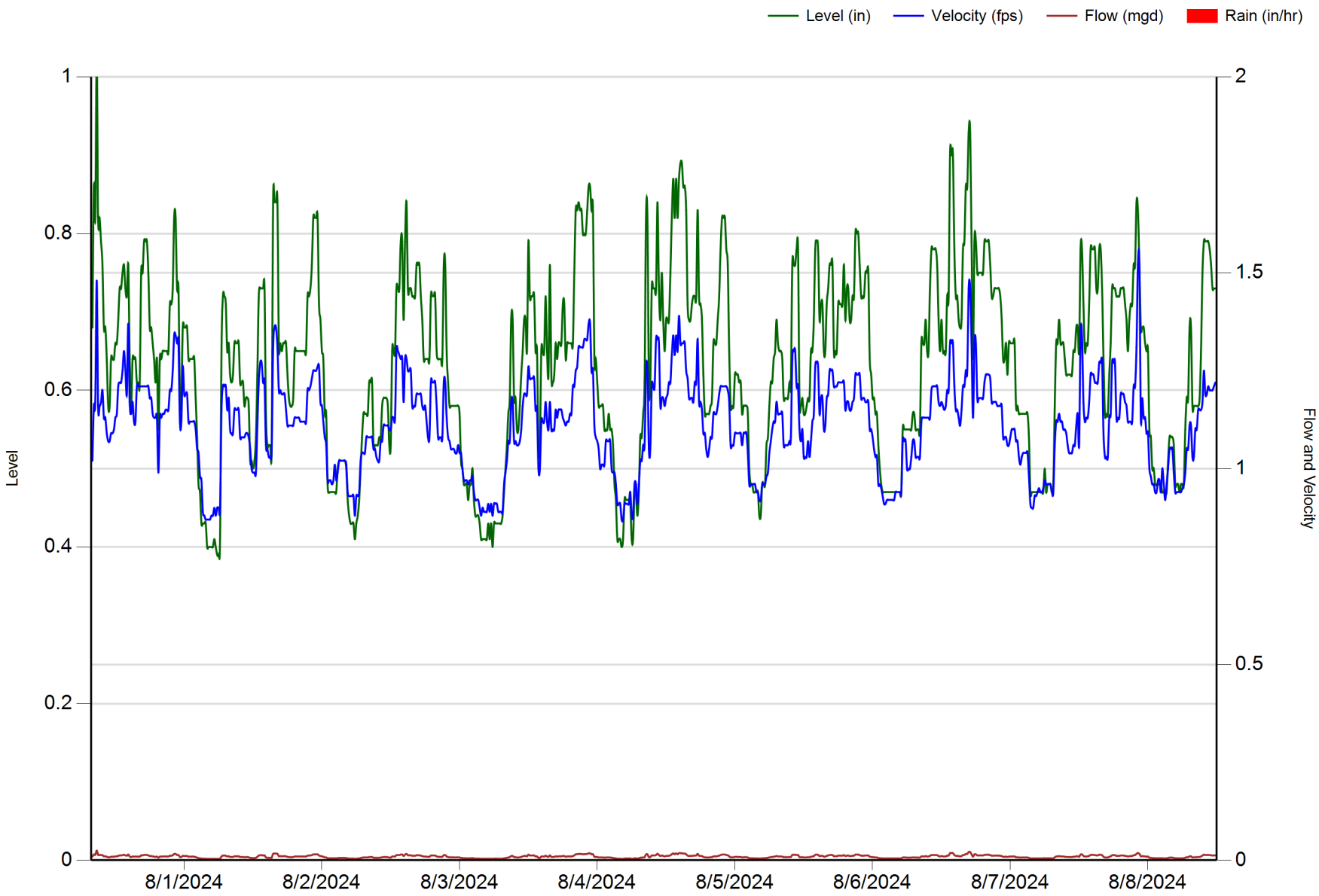
Upstream



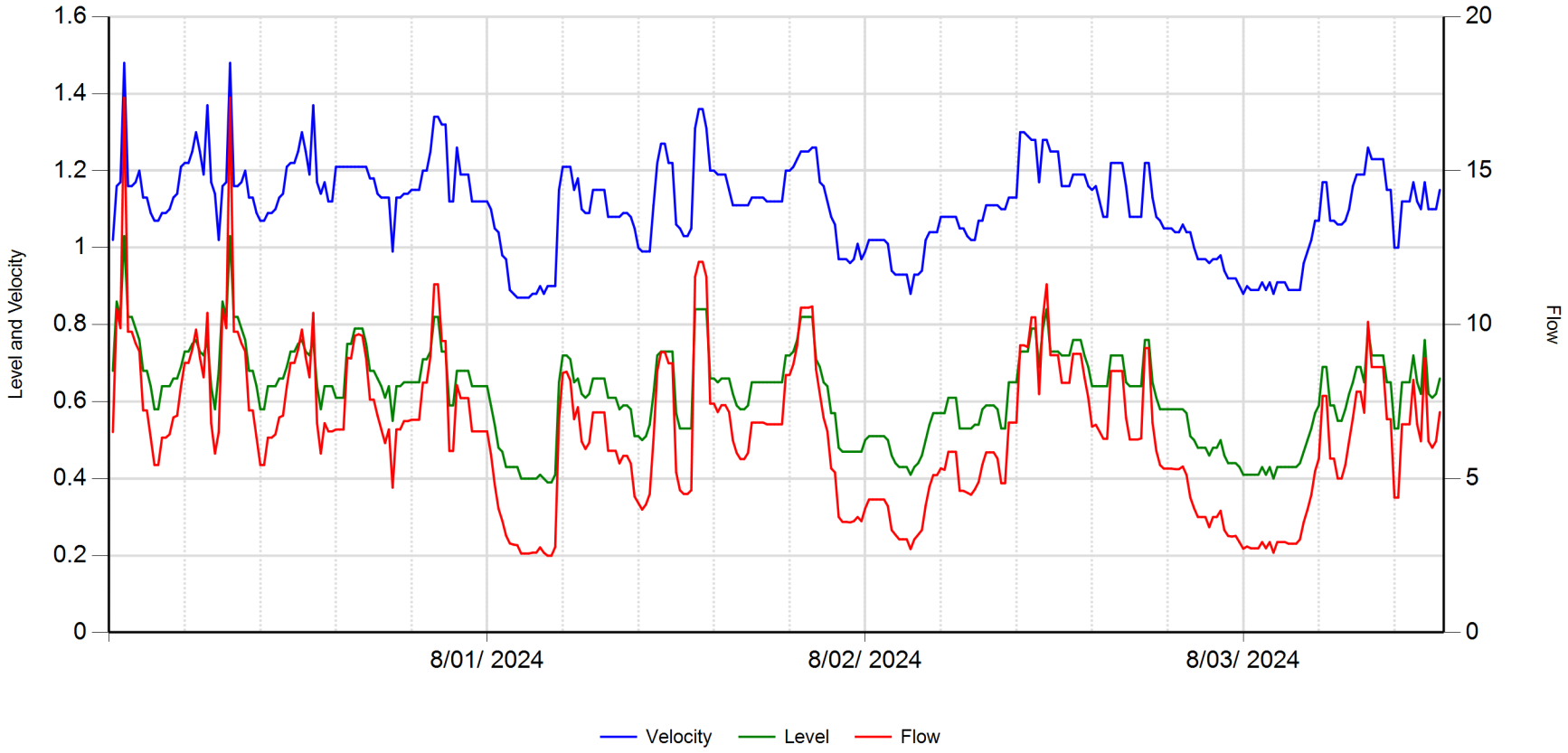
Upstream Pipe Size

Report Date: 08/13/2024
Customer: KPFF
Group: CMWC,LLC Wellness & Education Campus Plan & Land Use
Site: 2024.07 Holmes Ave MH 121

2024.07 Holmes Ave MH 121:
07/31/2024 thru 08/08/2024



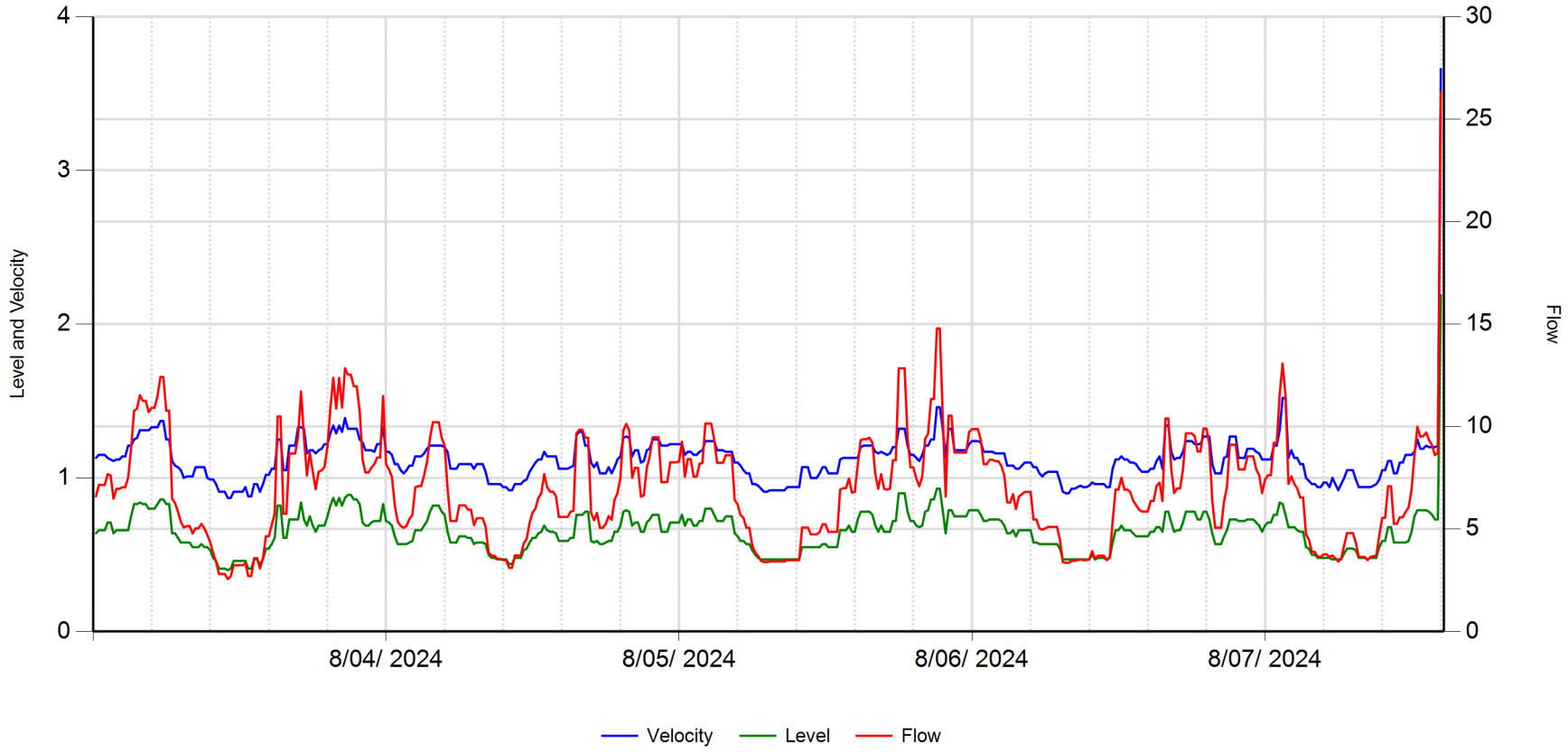
2024.07 Holmes Ave MH 121



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	1.108	0.621	6.476	**RainFall**	Inches
Maximum	1.480	1.030	17.372		
Minimum	0.870	0.390	2.494		

8/12/2024

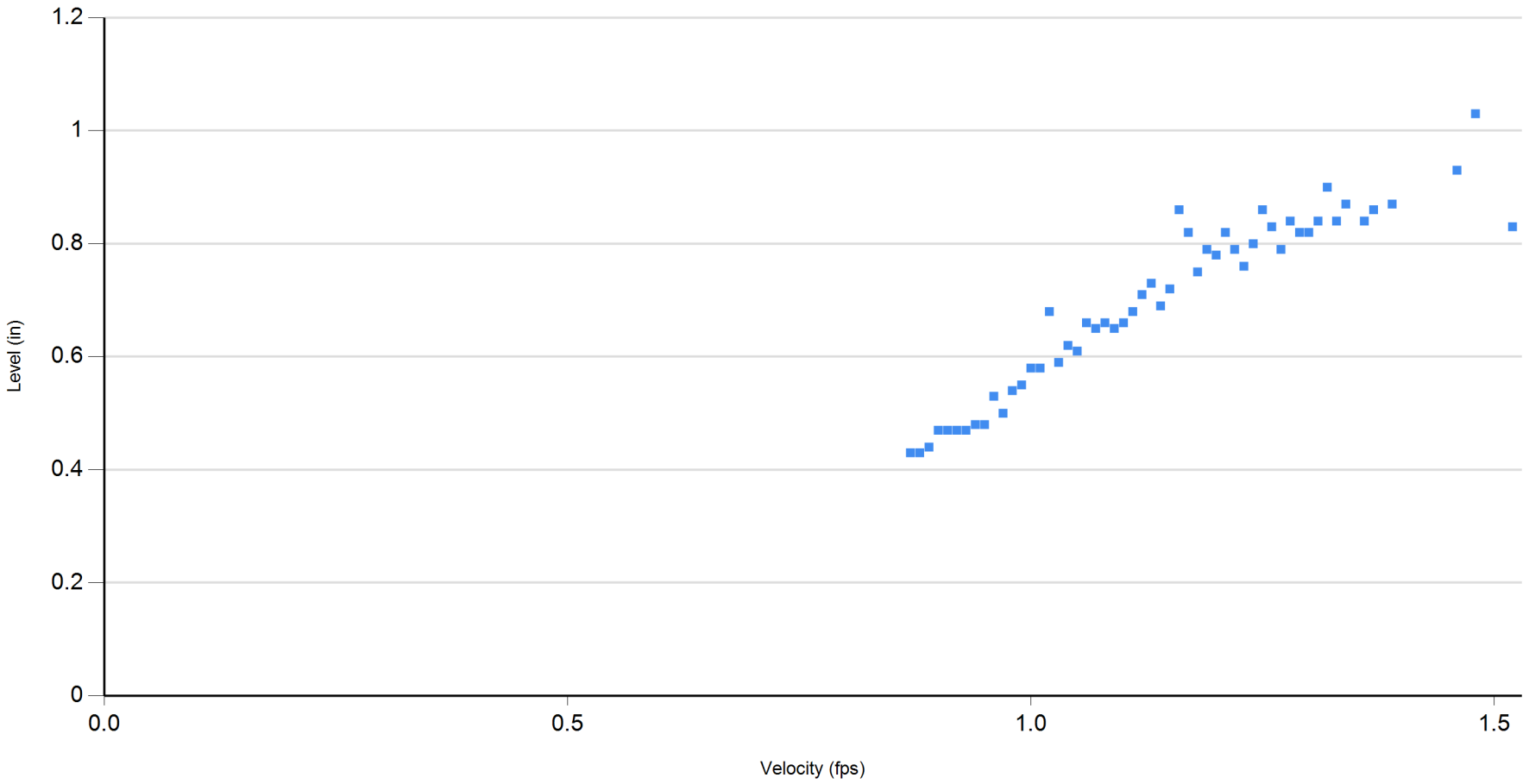
2024.07 Holmes Ave MH 121



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	1.116	0.647	6.919	**RainFall**	Inches
Maximum	1.520	0.930	14.789		
Minimum	0.870	0.400	2.566		

8/12/2024

2024.07 Holmes Ave MH 121



7/31/2024 thru 8/8/2024

8/12/2024 8:43:26 AM

Methods & Procedures & Equipment

Methods and Procedures

Utility Systems Science & Software provided KPFF with an off the shelf, non-proprietary flow monitoring solution that included one state of the art Hach Flo-Dar® AV Sensor system. The project course of action is listed below. The US^3 team:

- Assessed permitting and traffic control at the site on Holmes Av in Los Angeles, CA.
- Coordinated with the Los Angeles County Department of Public Works and the South Maintenance Yard Supervisor for installation and removal of equipment.
- Installed and removed traffic control in accord with site-specific Work Area Traffic Control Handbook (WATCH) requirement for the installation, calibration and removal of equipment.
- Validated the site for suitability for sewer flow monitoring for the CMWC,LLC Wellness & Education Campus Plan & Land Use Project.
  - The Holmes Ave MH 121 had no laterals with slow to moderate open channel hydraulics. The monitoring began on the upstream line as it provided the best hydraulics during inspection.
- Installed and calibrated the flow monitoring equipment at the site per manufacturer recommendations on 7/31/2024.
  - Follow-up on the installation confirmed equipment was reading properly.
  - Collected 15-minute interval depth and velocity data points over the entire monitoring period.
- Removed the equipment on 8/8/2024 and validated the data.
  - All of the equipment went through diagnostic testing before and after the study with less than a 1% deviation between manual and meter level readings and less than a 5% deviation between manual and meter velocity readings.
  - Equipment calibration was verified in accordance with manufacturer specifications.
- Prepared the data reports.
  - The table below contains a summary of the average (Avg) and maximum (Max) velocities (Vel) and levels (Lev) collected during this study as well as the calculated flow rates (Flow) and depth versus diameter ratios (d/D).

MH	Pipe Size (in)	Avg Vel (fps)	Max Vel (fps)	Avg Lev (in)	Max Lev (in)	Avg Flow (gpm)	Max Flow (gpm)	Avg d/D	Max d/D
121	8	1.11	1.52	0.63	1.03	6.67	17.37	0.08	0.13

Equipment

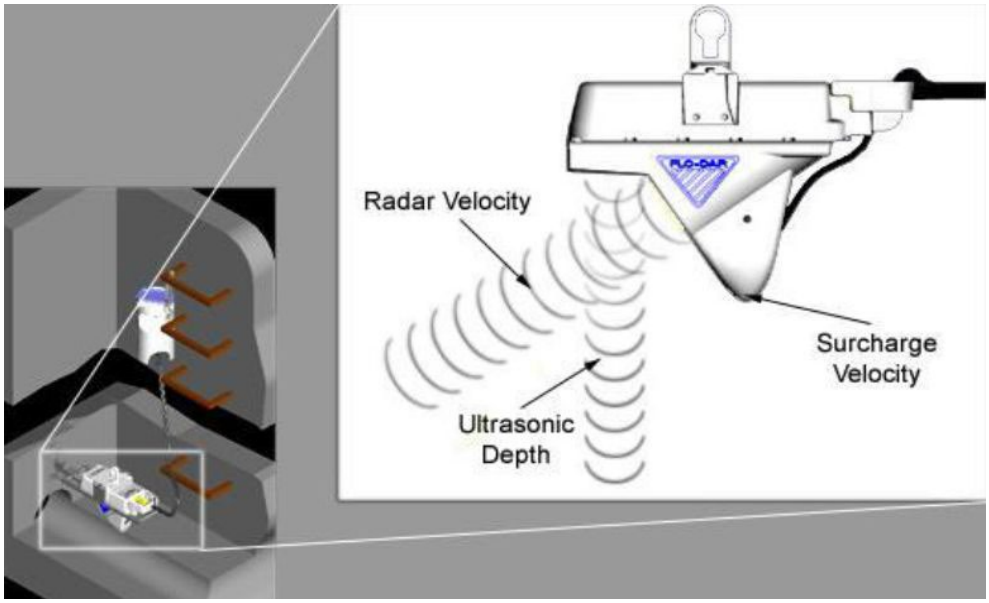


Figure above: Equipment installed for the Sewer Flow Monitoring Study



Figure above: Web-Enabled Flo-Dar® AV Sensor, Radar-Based Velocity/Area Flow Meter

FloDar® AV Sensor Specifications:

- **Enclosure**
  - IP68 Waterproof rating, Polystyrene
- **Dimensions**
  - 160.5 W x 432.2 L x 297 D mm (6.32 x 16.66 x 11.7 in.),
  - With SVS, D = 387 mm (15.2 in.)
- **Weight**
  - 4.8 kg (10.5 lbs.)
- **Operating Temperature**
  - -10 to 50°C (14 to 122°F)
- **Storage Temperature**
  - -40 to 60°C (-40 to 140°F)
- **Power Requirements**
  - Supplied by FL900 Flow Logger, Flo-Logger, or Flo-Station
- **Interconnecting Cable**
  - Disconnect available at both sensor and logger or Flo-Station
  - Polyurethane, 0.400 (±0.015) in. diameter; IP68
  - Standard length 9 m (30 ft), maximum 305 m (1000 ft)
- **Cables – available in two styles:**
  - connectors at both ends
  - connector from sensor with open leads to desiccant hub, desiccant hub with connector to logger. A potting/sealant kit will be included. This can be used to run the cable through conduit.
- **Certification**
  - Certified to: FCC Part 15.245: FCC ID: VIC-FLODAR24
  - Industry Canada Spec. RSS210. v7: IC No.: 6149A-FLODAR24

SURCHARGE DEPTH MEASUREMENT

  - Auto zero function maintains zero error below 0.5 cm (0.2 in.)
- **Method**
  - Piezo-resistive pressure transducer with stainless steel diaphragm
- **Range**
  - 3.5 m (138 in.), overpressure rating 2.5 x full scale

VELOCITY MEASUREMENT

- **Method**
  - Radar
- **Range**
  - 0.23 to 6.10 m/s (0.75 to 20 ft/s)

- **Frequency Range**
  - 24.075 to 24.175 GHz, 15.2 mW (max.)
- **Accuracy**
  - ±0.5%; ±0.03 m/s (±0.1 ft/s)

DEPTH MEASUREMENT

- **Method**
  - Ultrasonic
- **Standard Operating Range from Flo-Dar® Housing to Liquid**
  - 0 to 152.4 cm (0 to 60 in.)
- **Optional Extended Level Operating Range from Transducer Face to Liquid**
  - 0 to 6.1 m (0 to 20 ft.) with 43.18 cm (17 in.) dead band, temperature compensated.
- **Accuracy**
  - ±1%; ±0.25 cm (±0.1 in.)

FLOW MEASUREMENT

- **Method**
  - Based on Continuity Equation
- **Accuracy**
  - ±5% of reading typical where flow is in a channel with uniform flow conditions and is not surcharged, ±1% full scale max.

SURCHARGE CONDITIONS DEPTH/VELOCITY DEPTH (Std with Flo-Dar® Sensor)

- **Surcharge depth supplied by Flo-Dar® sensor.**

VELOCITY (Optional Surcharge Velocity Sensor)

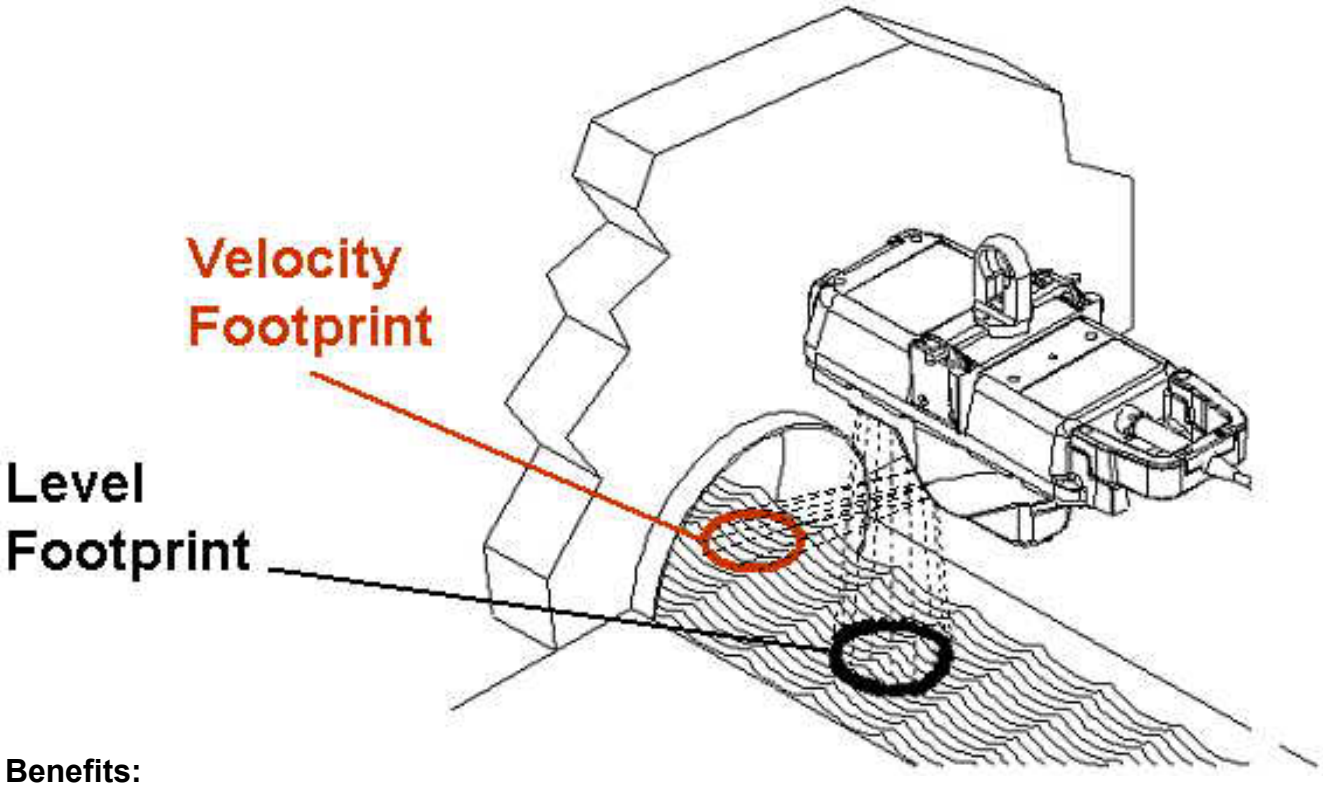
- **Method**
  - Electromagnetic
- **Range**
  - ±4.8 m/s (±16 ft/s)
- **Accuracy**
  - ±0.15 ft/s or 4% of reading, whichever is greater.
- **Zero Stability**
  - ±0.05 ft/s

The Flo-Dar® Open Channel Flow Meters provide an innovative approach to open channel flow monitoring. Combining digital Doppler radar velocity sensing with ultrasonic pulse echo level sensing Flo-Dar® provides accurate open channel flow monitoring without the fouling problems associated with submerged sensors.

Perfect Solution for Difficult Flow Conditions:

- Flows with High Solids Content
- High Temperature Flows
- Caustic Flows
- Large Man-Made Channel
- High Velocities
- Shallow Flows





Benefits:

1. Personnel have no contact with the flow during installation.
2. Maintenance caused by sensor fouling is eliminated
3. Field Replaceable/Interchangeable Sensors and Monitors

How It Works

Flo-Dar® transmits a digital Doppler radar beam that interacts with the fluid and reflects back signals at a different frequency than that which was transmitted. These reflected signals are compared with the transmitted frequency. The resulting frequency shift provides an accurate measure of the velocity and the direction of the flow. Level is detected by ultrasonic pulse echo. Flow is then calculated based on the Continuity Equation:

$$Q = V \times A, \text{ Where } Q = \text{Flow, } V = \text{Average Velocity and } A = \text{Area}$$

Accurate Flow Measurements

Flo-Dar® provides the user with highly accurate flow measurements under a wide range of flows and site conditions. By measuring the velocity of the fluid from above, Flo-Dar® eliminates accuracy problems inherent with submerged sensors including sensor disturbances, high solids content and distribution of reflectors.

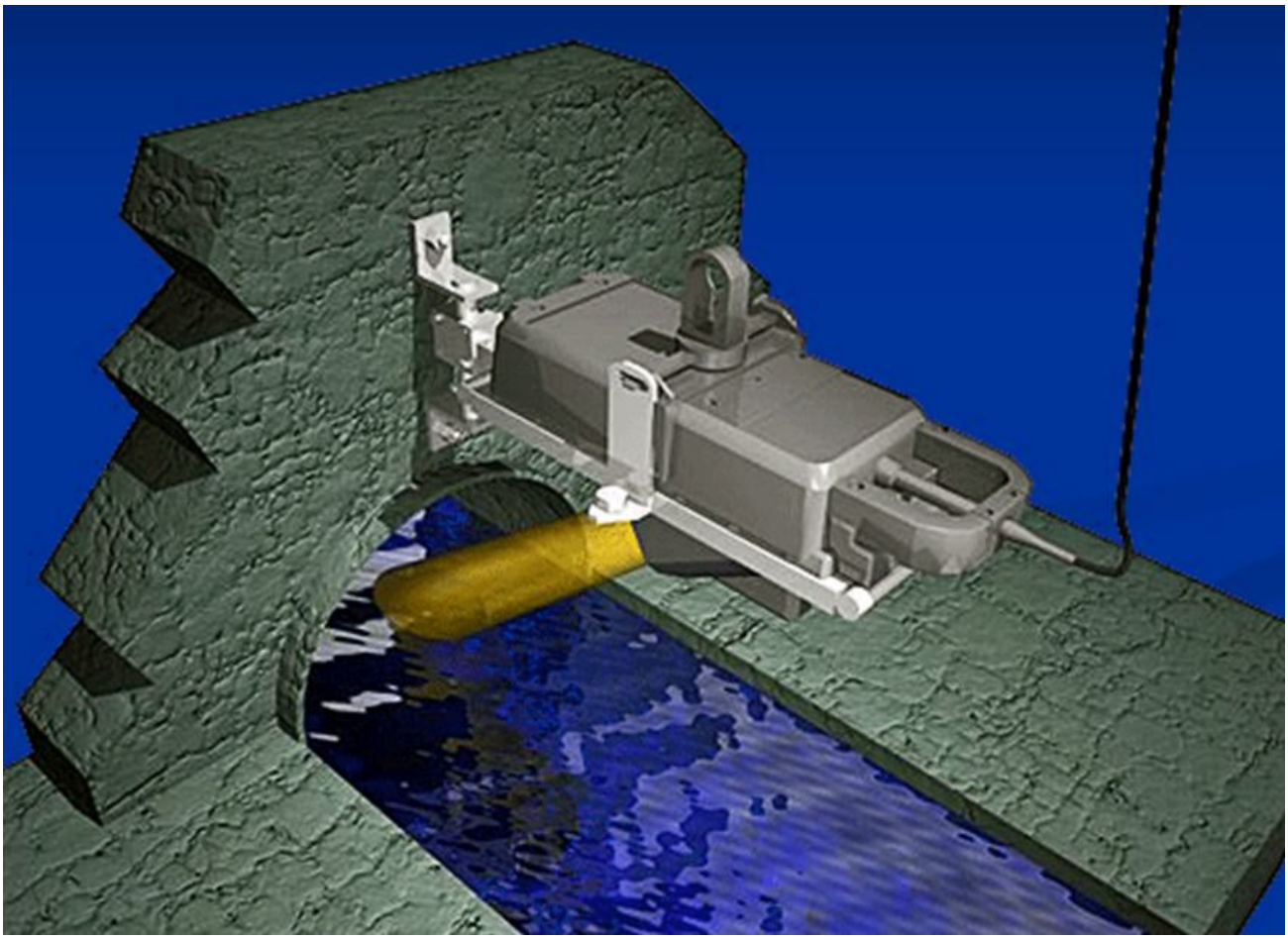


Figure above: US^3 utilizes exclusively Hach March-McBirney Flo-Dar® Meters

US³ Company Information

US³ is a California Corporation **Federal ID No. 33-0729605** and qualifies as a Minority Business Enterprise. US³ has certified as an MBE with the California Public Utility Commission's authorized clearinghouse, **Verification Number: 97ES0008.**

US³ is a specialty service company for the Water & Waste Water industry, providing monitoring and control for Utilities since 1996. US³ is in the forefront of this industry by taking the proven technological approaches developed in other high-tech industries and applying them to protect one of our most precious natural resources - our water.

US³ engineers and technical personnel have applied advanced instrumentation system technology to water/wastewater open channel flow monitoring, pipeline evaluation, engineering, and data analysis, all coupled to the power of the Internet. This unique integrated systems approach allows the company to bring greater insight and intelligence to gathering information about water/wastewater system performance of our clients, and in turn, to support the fulfillment of their commitments to manage and cost effectively design, operate, and maintain these systems.

Moreover, ***US³*** supports Municipalities, Consulting Engineering firms and other water/waste water systems integrators by providing temporary technical services for engineering, software programming and technical site maintenance and calibration site support work, primarily in the Water and Waste Water industries.



Figure at right: All US³ technicians are certified for Confined Space Entry.

Key Personnel Assigned

US³ provided the necessary resources to fully implement this project. Primary in support of this effort were the following personnel:

Mr. Mark Serres: Mr. Serres is a degreed electrical engineer with over 30 years of experience with fresh/wastewater systems, project management, and systems integration in relation to complex industrial systems. This includes experience in industrial automation and water/wastewater industries. Mr. Serres is responsible for assuring client satisfaction and marshalling the required resources to meet the project requirements.

Mr. Thomas Williams: Mr. Williams is an Engineering Manager with over 25 years of experience in complex systems development for wastewater monitoring. This experience includes hydraulic compatibility, instrumentation, communications and analysis. Mr. Williams is responsible for assuring that the required equipment is designed and calibrated to meet the project requirements.

Darlene Szczublewski, PE: Mrs. Szczublewski is a licensed Civil Engineer in multiple states. She has over 20 years of engineering experience with stormwater/wastewater related projects. She assisted in the completion of several Sanitary Sewer Evaluation Surveys and Capacity Analysis projects to meet Consent Decrees as well as completing numerous Infiltration and Inflow (I&I) studies for other clients. Mrs. Szczublewski has developed numerous flow data analysis techniques to present a clear informative picture of flow in a monitored system. Her work also includes the development of training programs for clients describing I&I and capacity analysis methodologies. Mrs. Szczublewski is responsible for analyzing the data as well as the data collection process and assuring that the reports meet the project requirements.

Name, title, address and telephone number of persons to contact regarding this US³ project.

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