# REUBEN, JUNIUS & ROSE, LLP

Justin A. Zucker

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April 5, 2022

## **Delivered Via Email**

Honorable Members of the Oakland City Council c/o Peterson Vollmann, Planner IV 250 Frank H. Ogawa Plaza, Suite 2114 Oakland, California 94612 Pvollmann@oaklandca.gov

**Re:** 1396 5<sup>th</sup> Street | Appeal of PLN20-101

Hearing Date: April 19, 2022

Our File No.: 11618.01

Dear President Bas and Council Members:

At the September 21, 2021, City Council hearing, council indicated a desire for further analysis of potential hazardous materials at 1396 5<sup>th</sup> Street (the "**Property**"). Concern was expressed regarding possible environmental impacts from the construction of a 222-unit housing project with 16 affordable units to very-low income households (the "**Project**"). Extensive environmental review of the Property was performed ahead of the March 2021 Planning Commission approval, including the 2014 West Oakland Specific Plan ("**WOSP**") Environmental Impact Report ("**EIR**") and the Project's CEQA Analysis. Notwithstanding the Project's four CEQA exemptions and being violative of pending legislation (<u>AB2656</u>), having heard the Council and a desire to address comments from the community, supplemental environmental analysis of the Property has been performed (Phase 2 attached as <u>Exhibit A</u>) even though outside the typical order of operations for development of a project tiering off a specific plan EIR. (*See* <u>Exhibit B</u>.)

The supplemental environmental analysis confirms what both the WOSP EIR and the Project's CEQA Analysis identified as a *potential* impact. The supplemental environmental review found the Property *is* impacted with hazardous materials. The extent of the hazardous materials present, however, is typical for property in the area given the historic industrial and transportation uses in West Oakland. Development of the Project site is not precluded due to the existence of some hazards. In fact, because the site has clearance as a vacant site from the Alameda County Department of Environmental Health ("ACDEH"), additional mitigation/remediation of the site will not happen until development occurs. We respectfully ask you deny the pending appeal and allow the Project to proceed, including clearing the site for residential uses under the oversight of the ACDEH.

The CEQA Analysis concluded the Project did not require major revisions to the WOSP EIR because the Project did not propose any changes to the density, land use policies, or character

President Nikki Fortunato Bas and Council Members Oakland City Council April 5, 2022 Page 2 of 2

of the plan's land use and zoning designation. There is nothing peculiar about the Project and it's tiering off the WOSP EIR. Today, the Project site, which was cleared in 2017 for vacant use, is cleaner than it was in 2014 when analyzed by the WOSP EIR. Though the Project's 2021 CEQA Analysis identified the Project site as potentially being impacted by hazardous materials, it determined the Project would not result in an increase in the impacts analyzed and disclosed in the WOSP EIR. To address potential impacts, the Project has mitigation measures imposed, including the City's Standard Conditions of Approval. The City's conditions of approval require that the Property is safe for construction and residential uses to the standards established by the ACDEH prior to the City approving a building permit for any earth movement or vertical construction at the site. (See Exhibit B.)

The Project is similar to numerous other projects nearby that have tiered off the WOSP EIR, including 500 Kirkham Street, the Union (532 Union Street), 1471 7<sup>th</sup> Street, the Phoenix (801 Pine Street), and the Ice House (975 24<sup>th</sup> Street). In fact, the Project is very similar to the Ice House. The Ice House site, like the Property, is a former light industrial site with some hazardous materials impacts. Subsequent to Planning Commission approval and before approval of a building permit for earth movement or vertical construction, the Ice House site was cleared for residential use under the oversight of the ACDEH. Prior to completion of construction, like several other developments last decade, the Ice House was destroyed due to arson. It had to be rebuilt.

As identified in the attached supplemental environmental analysis, protective measures are available, e.g., a vapor barrier, that would ensure compliance with the regulatory standards of the ACDEH to safeguard the health and safety of the Project's construction workers and future residents.

The West Oakland Specific Plan's "vision for the 7<sup>th</sup> Street Opportunity Area includes higher-density housing . . . [and] specifically reflects the desire for a new TOD [Transit-Oriented Development] neighborhood to be built on the currently vacant sites and parking lots surrounding the West Oakland BART Station." (WOSP, p. 4-44.) The Project embraces and brings to fruition the City's vision for the 7<sup>th</sup> Street Opportunity Area, including higher-density housing around the West Oakland BART Station. We urge you deny the appeal and allow the Project to proceed. If you have any questions please do not hesitate to contact to me at 415.567.9000 or jzucker@reubenlaw.com. Thank you.

Very truly yours,

REUBEN, JUNIUS & ROSE, LLP

Justin A. Zucker

cc: Michael Branson, City Attorney (*via email*, mbranson@oaklandcityattorney.org) Michaels Organization (*via email*, scooper@tmo.com)





April 5, 2022

Scott Cooper Vice President THE MICHAELS DEVELOPMENT COMPANY 2020 West Kettleman Lane P.O. Box 1570 Lodi, California 95241

Re: CITADEL Project No. 0849.1004.0
Executive Summary
Proposed Golden West Residential Development
1396 Fifth Street
Oakland, California 94607

Dear Mr. Cooper:

Citadel EHS (Citadel) is pleased to provide this Executive Summary describing the environmental history for the property located at 1396 Fifth Street in the City of Oakland, California (Site).

The Site has been occupied by various food grade industries including yeast and vinegar production from at least 1880 through 2003. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011. The Property fronts Fifth Street on the south, Mandela Parkway on the west, the BART Right-Of-Way (ROW) on the north and Kirkham Street on the East in Oakland, California. The Site and the surrounding commercial areas are primarily covered with asphalt, concrete or bare soils.

• Land use in the Site vicinity is primarily commercial/industrial or vacant. The closest residential neighborhood is located approximately 360 feet to the south and apartment buildings and additional residential areas begin approximately 370 feet north of the Site.

Commercial and industrial properties surrounding the Site include:

- An active gasoline station and convenience store is located on the southeast corner of Mandela Parkway and Seventh Street approximately 140 feet north;
- The Oakland West BART station occupies the block immediately west of the Site;
- A vacant lot that was formerly the J&H Truck Repair/Smilo Chemical Company occupies
  the lot directly east of the Site and is bounded by Kirkham Street on the west; and
- The residential area located north of the Site is upgradient of the Site, and unlikely to have been affected by any releases from the Site. A residential area is located approximately 500 feet downgradient from the Site.
- Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with documented releases, and an unauthorized release of mercury.



#### 2011/2012

In 2011, approximately 8,575 cubic yards of soil was removed as non-hazardous along with approximately 31 cubic yards of non-RCRA hazardous soil due to the presence of lead and mercury.

- Following excavation, confirmation soil samples were collected and analyzed for mercury and lead. No mercury was reported above the method detection limit and one soil sample along the eastern side of the Site was reported with a lead concentration of 93 milligrams per kilogram (mg/kg). Soil from this area was excavated and disposed off-site.
- Three USTs were closed, two by removal and one closed in place with a no further action notice from the Oakland Fire Department.
- The residential development had been approved by the regulatory agencies and the City
  of Oakland for 114 apartment units.
- During late-stage vertical construction in 2012, a fire occurred at the Site significantly damaging the Site structure and surrounding properties.

#### 2016

The podium was demolished, and the debris removed in April 2016. In June 2016, the Michaels Development Company (Michaels) evaluated the Site for permanent regulatory closure.

- Soil collected from fill material did not exceed the San Francisco Bay Regional Water Quality Control Boards Tier 1 Environmental Screening Levels (ESLs) for total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), TPH as oil (TPHo), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) or heavy metals.
- The presence of polycyclic aromatic hydrocarbons (PAHs) was reported in shallow soils. The low-level concentrations of PAHs are believed to result from the fire that occurred in 2012.
- Groundwater samples were analyzed for VOCs and TPH.
- Maximum TPH and VOC concentrations in groundwater were observed along the northern boundary of the Site.
- Groundwater samples collected from two upgradient sampling locations near the BART ROW were reported to exceed the Tier 1 ESLs for TPHg, TPHd, benzene, toluene, ethylbenzene, xylenes (BTEX) and tertiary butyl alcohol (TBA).
- These contaminants are typical constituents of gasoline,
- The source of petroleum hydrocarbon contamination at the Site is likely to be the BART ROW that is immediately adjacent to the northern perimeter of the Site, or the service station located of the Site on the southeast corner of Mandel Parkway and 7th Street.
- The ACDEH concluded that future development would not include direct exposure to subsurface soils and shallow groundwater; and the maximum concentrations of the contaminants of potential concern are below the published ESLs.

## 2017

In May 2017, (ACDEH, 2017) the ACDEH closed Cleanup Program Case No. RO0002896 based on an evaluation of health risks under the land use scenario as a vacant fenced lot at the time of case closure.



• The case was closed with the condition that any proposed change in land use be reviewed by ACDEH for reevaluation of human health risk from subsurface contamination at and in the vicinity of the Site to construction workers and the community during redevelopment activities, and the Site users once the redevelopment is complete.

#### 2021

A Service Request Application for a Preliminary Site Review, dated May 18, 2021, was submitted by Oakland Housing Investors L.P. The purpose of the Site Review was to engage the ACDEH with regulatory oversight authority to change the land use designation from a vacant lot to residential use.

- Based on ACDEH review of the case files, ACDEH concurred that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site controls and permanent protective practices such as soil removal, installation of an approved vapor barrier and hardscaping of the entire Site.
- ACDEH requested that the Client enter into a Voluntary Remedial Action Agreement with ACDEH to provide oversight of Site investigation activities to fill remaining data gaps to characterize soil and soil vapor at the Site.
- On November 30, 2021, Citadel supervised the advancement of 12 shallow borings across the Site.
- Based on the current investigation, all soil results were below their respective residential ESLs.
- VOCs that exceeded the residential ESL for soil vapor in one or more samples included benzene, ethylbenzene, bromodichloromethane, chloroform, tetrachloroethene (PCE) and vinyl chloride.
- Bromodichloromethane and chloroform reported in soil vapor are common byproducts of chlorinated drinking water and are not considered contaminants from past activities at the Site.
- PAHs were reported in multiple soil samples. All PAH results are below their respective residential ESLs or residential HHRA Note 3 screening levels.

Site excavation of surface soils is planned to approximately three feet below ground surface to allow for structural compaction, and the installation of a vapor barrier as part of the proposed new construction, any residual contaminants will not be a significant health risk to future occupants and workers.

 Low levels of PCE and vinyl chloride reported in soil vapor samples do not appear to be sourced from the Site based on current and historical soil and groundwater data collected at the Site. The soils containing these low concentrations are fill materials and will be removed as part of the Site redevelopment.

## 2022

On February 2 and 3, 2022, 20 shallow borings were advanced across the Site to collect additional soil and groundwater samples.



- Based on groundwater sample results, TPHd and TPHo extends across the entire Site.
  Concentrations of TPHd range from 176J μg/L to 1,920 μg/L. The maximum concentrations are generally above 1,000 μg/L on the western end of the Site and reduce to less than 1,000 μg/L on the eastern end of the Site.
- Insignificant concentrations of VOCs were reported in groundwater, indicating that the PCE,
   TCE and vinyl chloride reported in the December soil vapor results are limited to a small area in the southwest portion of the Site. No source for these contaminants has been located.
- Based on the distribution of TPH in groundwater across the Site, TPH may be migrating onto
  the Site from an offsite source to the north. Groundwater flow is generally expected to flow
  to the south-southwest.
- The PCB Aroclor 1016 was reported in two soil samples in the December 2021 investigation.
   Additional sampling conducted to define the horizontal limits of the PCB impacts was conducted in the February 2022 investigation and all PCB results were below their respective MDLs All PCB results are below their respective residential ESLs.
- TPHg, benzene, ethylbenzene, PCE, and vinyl chloride were reported in one or more soil vapor samples at concentrations above their respective residential ESLs.
- Based on the assessment of all available data for the Site, the concentrations of VOCs in site environmental media do not pose adverse effects to human health and the environment provided a vapor barrier is installed as part of the Site redevelopment.
- A formal request for regulatory closure has been requested from the ACDEH based on the above investigations and findings.

The results of the current investigations indicate that residual concentrations of contaminants are present in soil, soil vapor and groundwater at the Site. ACDEH previously indicated concurrence that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site protective practices such as soil removal, installation of an approved vapor barrier and hardscaping of the Site open areas.

If after your review of this Executive Summary, you have any questions or require additional information, please do not hesitate to telephone our office at (818) 246-2707.

Sincerely,

CITADEL EHS

Mark Drollinger Environmetal Science,

Digitally signed by Mark Drollinger DN: cn=Mark Drollinger, o=Citadel EHS, ou=Engineering and Environmnetal Science, email=mdrollinger@citadelehs.co m, c=US

Date: 2022.04.05 18:49:56 -07'00'
Mark Drollinger, M. Eng., CSP, CHMM

Principal, Engineering and Environmental Sciences

March 2, 2022

Scott Cooper Vice President THE MICHAELS DEVELOPMENT COMPANY 2020 West Kettleman Lane P.O. Box 1570 Lodi, California 95241

Re: Alameda County Health Care Services Agency,

Department of Environmental Health, Case No. RO0002896

CITADEL Project No. 0849.1004.0

Phase II Subsurface Investigation Report

Proposed Golden West Residential Development

1396 Fifth Street

Oakland, California 94607

Dear Mr. Cooper:

Citadel EHS (Citadel) is pleased to provide you with this Phase II Subsurface Investigation Report for the above-referenced location.

The Phase II Subsurface Investigation was conducted in accordance with Citadel's Proposal 0849.1003.P, dated September 15, 2021, a Work Plan submitted to the Alameda County Department of Environmental Health on October 6, 2021, and supplemental request for information dated January 31, 2022.

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 FHS

Mark Drollinger, M. Eng., CSP, CHMM Principal, Engineering and Environmental Sciences

Enclosure



#### Michaels Development

2020 West Kettleman Lane P.O. Box 1570 Lodi, California 95241

## **Phase II Subsurface Investigation Report**

March 2, 2022

Citadel Project Number 0849.1004.0

Proposed Golden West Residential Development 1396 Fifth Street Oakland, California 94607

Alameda County Health Care Services Agency, Department of Environmental Health, Case No. R00002896

www.CitadelEHS.com



Groundwater

PHASE II SUBSURFACE INVESTIGATION REPORT MICHAELS DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA CASE NO. RO0002896 MARCH 2, 2022

## **Table of Contents**

1.0	INTRODUCTION	1			
2.0	BACKGROUND				
3.0	PRE-FIELD ACTIVITIES	3			
4.0	SOIL AND SOIL VAPOR SAMPLING	3			
5.0	SCREENING LEVELS	5			
6.0	RESULTS AND ANALYSIS	6			
7.0	SUPPLEMENTAL SOIL AND GROUNDWATER SAMPLING	8			
8.0	RESULTS AND ANALYSIS	9			
9.0	DATA VALIDATION1	0			
10.0	CONCEPTUAL SITE MODEL1	2			
11.0	CONCLUSIONS AND RECOMMENDATIONS1	5			
12.0	REFERENCES CITED1	8			
13.0	LIMITATIONS1	9			
14.0	SIGNATURES20	0			
FIGUR	ES				
Figure					
Figure	•				
Figure					
Figure Figure					
Figure					
Figure					
Figure					
TABLI	S				
Table	Title 22 Metals in Soil				
Table :					
Table					
Table -					
Table	Total Petroleum Hydrocarbons as Gasoline (TPHg) and Volatile Organic Compounds (VOCs in Soil Vapor	)			
Table	Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) in	n			



#### **APPENDICES**

Appendix A Alameda County Department of Environmental Health Site Investigation Work Plan

Appendix B ACDEH Work Plan Approval

Appendix C Soil Boring Permit
Appendix D Health and Safety Plan
Appendix E USA North 811 Ticket

Appendix F Boring Logs

Appendix G Citadel Field Notes

Appendix H Laboratory Reports and Chain of Custody Documentation



#### 1.0 INTRODUCTION

Citadel EHS (Citadel) has prepared this Phase II Subsurface Investigation (Phase II) Report for the property located at 1396 Fifth Street in the City of Oakland, California (Site). The Site is currently a vacant lot covering approximately 33,394 square feet (SF) of land. The future Site development is under regulatory review by the Alameda County Department of Environmental Health (ACDEH) and has been assigned Case ID RO0003500 and GeoTracker Global ID T10000017095.

The Site is identified by County of Alameda Assessor's Parcel Number 004-69-004. The Site is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track and right-of-way is situated along the northern boundary of the Site. The Site lies at an elevation of approximately 10 feet above mean sea level (AMSL) (USGS, 2018) and generally slopes north to south. A Site Location Map is included as Figure 1 and Site Map as Figure 2.

#### 2.0 BACKGROUND

Historically, the Site has been occupied by various food grade industries including yeast and vinegar production and a brewery from at least 1880 through 2003. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011 with supplemental removals of sewer connections and structural pilings. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with documented releases, and an unauthorized release of mercury to the sewer system with impacts to the subsurface soil. A layer of artificial fill extends across much of the Site. Previous testing indicated the fill consisted of elevated levels of lead in some areas, and detectable but generally low concentrations of mercury. In 2011, approximately 8,575 cubic yards of soil was removed as non-hazardous along with approximately 31 cubic yards of non-RCRA hazardous soil due to the presence of lead and mercury. Following excavation, confirmation soil samples were collected and analyzed for mercury and lead. No mercury was reported above the method detection limit and one soil sample along the eastern side of the Site was reported with a lead concentration of 93 milligrams per kilogram (mg/kg) which was slightly greater than the guideline concentration of 80 mg/kg lead (Citadel, 2012a). Soil from this location was excavated and removed as part of the larger removal.

During development of the Site, three underground storage tanks (USTs) were discovered under the sidewalk along Fifth Street. In October 2011, each UST was opened and sampled for disposal profiling of the contents. In November 2011 soils were excavated from above and along the sides of the USTs in order to expose their tops and walls in preparation for removal. During removal of the overburden at UST No. 4 at the corner of Mandela Parkway and Fifth Street, live utility lines were observed crossing the top of the UST. The Oakland Fire Department (OFD) Inspector approved UST No. 4 to be closed in-place by removing the contents and filling the UST with concrete slurry (Citadel, 2012b).

## 2012

During late-stage vertical construction in 2012, a fire occurred at the Site significantly damaging the Site structure and surrounding properties. After removing debris from the fire, the Site consisted of a concrete podium. The podium was demolished, and the debris removed in April 2016.

#### 2016



In June 2016, the Michaels Development Company (Michaels) contracted with Citadel to evaluate the Site for permanent regulatory closure. With the approval of the ACDEH, Citadel advanced 15 soil borings at the Site collecting continuous soil cores at each of the 15 locations for geologic characterization of the fill and native material at the Site. The contact between fill and native soil was logged at each boring location. Three soil borings were advanced adjacent to former USTs 1, 3 and 4 to evaluate soil and groundwater in these areas. Groundwater samples were collected from two borings to evaluate groundwater upgradient of the former USTs. The remaining borings were located across the Site.

Based on the analytical reporting soil collected from fill material did not exceed the San Francisco Bay Regional Water Quality Control Boards (SFBRWQCB) Tier 1 Environmental Screening Levels (ESLs) for total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), TPH as oil (TPHo), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) or Title 22 heavy metals with the exception of arsenic. The concentrations of arsenic from fill were found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations from fill and native soils did not exceed the background levels for arsenic (Duverge, 2011).

The presence of polycyclic aromatic hydrocarbons (PAHs) was reported in shallow soils. The presence of PAH's commonly occurs as a by-product of combustion and from higher molecular hydrocarbons such as wood coatings. The low-level concentrations of PAHs are believed to result from the fire that occurred in 2012. PAHs typically impact human health from direct exposures.

Groundwater was encountered at approximately 11 feet below ground surface (bgs) in the borings extended to groundwater. Groundwater samples were analyzed for VOCs and TPH. Maximum TPH and VOC concentrations in groundwater were observed along the northern boundary of the Site. From reviews of environmental reports submitted to the SFBRWQCB on behalf of properties north of the Site, the groundwater gradient in the near vicinity appears to flow in a south-southwest direction. Groundwater samples collected from two upgradient sampling locations near the BART right-of-way (ROW) were reported to exceed the Tier 1 ESLs for TPHg, TPHd, benzene, toluene, ethylbenzene, xylenes (BTEX) and tertiary butyl alcohol (TBA). These contaminants are typical constituents of gasoline, Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water.

The source of petroleum hydrocarbon contamination at the Site is likely to be the BART ROW that is immediately adjacent to the northern perimeter of the Site, or the former service station located approximately 175 feet north of the Site on the southeast corner of Mandel Parkway and 7th Street. Oil seepage from the BART ROW on the north side of the Site has been previously noted (Citadel, 2011, 2012a).

From this investigation Citadel concluded that future development would not be anticipated to include direct exposure to subsurface soils and shallow groundwater; and the maximum concentrations of the contaminants of potential concern (COPC) discussed above are below the published ESLs.

#### 2017

In May 2017, (ACDEH, 2017) the ACDEH closed Cleanup Program Case No. RO0002896 based on an evaluation of health risks under the land use scenario as a vacant fenced lot at the time of case closure. The case was closed with the condition that any proposed change in land use be reviewed by ACDEH for reevaluation of human health risk from subsurface contamination at and



in the vicinity of the Site to construction workers and the community during redevelopment activities, and the Site users once the redevelopment is complete.

## 2021

In accordance with the 2017 ACDEH's change in land use condition of case closure, a Service Request Application for a Preliminary Site Review, dated May 18, 2021, was submitted by Oakland Housing Investors L.P. The purpose of the Site Review was to engage the ACDEH with regulatory oversight authority to change the land use designation from a vacant lot to residential use.

Based on ACDEH review of the case files, ACDEH concurred that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site controls and permanent protective practices such as soil removal, installation of an approved vapor barrier and hardscaping of the entire Site.

ACDEH requested that the Client enter into a Voluntary Remedial Action Agreement with ACDEH to provide oversight of Site investigation activities to fill remaining data gaps to characterize soil and soil vapor at the Site. Information obtained from this investigation would be used to evaluate the current subsurface conditions, and provide recommendations for any contaminant mitigation measures that are protective of human and environmental health

Citadel prepared a Work Plan (Citadel, 2021) to address the apparent data gaps from previous investigations which included relatively few previous soil samples from native soils around the perimeter of the Site and no soil vapor sampling. The Work Plan was submitted on October 6, 2021, and approved by the ACDEH in an email dated November 11, 2021. A copy of the Work Plan is included in Appendix A and the ACDEH approval by email is included in Appendix B.

#### 3.0 PRE-FIELD ACTIVITIES

A Water Resources Well Permit was obtained from the Alameda County Public Works Agency. A copy of the approved permit is included in Appendix C. Prior to on-site activities, a site-specific health and safety plan (HASP) was prepared. This HASP identified existing and potential hazards for workers at the Site during drilling and sample collection activities. A copy of the HASP is included in Appendix D.

To screen the Site for potential utilities, Citadel contacted Underground Service Alert (USA) North 811 for marking public utilities on and adjacent to the Site. A copy of the USA ticket is included in Appendix E.

Representatives from Pacific Gas and Electric (PG&E) met with Citadel at the site to further investigate the proposed drilling locations due to limited access to their utility vaults along Fifth Street. At the request of PG&E, select boring locations were hand augured due to a potential conflict with electrical lines in the vicinity of these borings.

## 4.0 SOIL AND SOIL VAPOR SAMPLING

On November 30, 2021, Citadel supervised the advancement of 12 shallow borings across the Site using a hand augur or direct push sampling rig operated by Trinity Drilling, Inc. The boring



numbering used by Citadel continued with the highest boring number from 2016 with Borings (B) B16 through B27. Borings B16, B17, B18, B22, B25 and B27 were placed along the east, south and west perimeter of the Site for the collection of additional native soil samples and soil vapor samples. Borings B19, B20, B21, B23, B24 and B26 were placed in the interior of the Site for the collection of soil vapor samples. Please refer to Figure 3 for the boring and sampling locations.

#### Soil

Each boring was advanced to approximately five feet bgs with soil samples collected at one, three and five feet bgs and labeled with the boring number and approximate depth. For example, the soil sample from boring B16 collected at one-foot bgs is labeled B16-1. Soil samples were described under the supervision of a California Professional Geologist, and field screened with a photoionization device (PID) for the presence of VOCs.

Thirty-six soil samples and two duplicate soil samples were transported the day they were collected under proper Chain-of-Custody (COC) protocols to Enthalpy Analytical (Enthalpy) in Berkley, California. Enthalpy is an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. The soil samples from borings B16, B17, B18, B22, B25 and B27 were analyzed for TPH by EPA Methods 8015B/8015M, VOCs by EPA Method 8260B, PAHs by EPA Method 8270C-SIM, PCBs by EPA Method 8082 and Title 22 Metals by EPA Methods 6010B/7471A. The remaining samples were held by the laboratory and not analyzed.

#### Soil Vapor

Soil vapor probes were installed in all borings at five feet bgs or approximately one foot above groundwater if encountered during boring. Soil vapor probe depths and depths to groundwater are shown in the table below. Each soil vapor probe was set in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) – Active Soil Gas Investigations Advisory (Advisory) (DTSC, 2015) and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (DTSC, 2011). Soil vapor probe tips were placed within a sand pack at the proposed sampling depth. 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. Each soil vapor probe was identified with the boring name and depth along with "V" to identify it as a soil vapor sample. For example, the soil vapor sample from boring B24 collected at five feet bgs is labeled B24-5V.

Boring Number	Drilling Method	Soil Vapor Probe Depth (feet)	Groundwater Depth (feet)	Sample Collected
B16	Direct Push	5.0	Not Encountered	No – Flooded
B17	Direct Push	3.5	4.0	Yes
B18	Hand Auger	1.5	2.5	Yes
B19	Hand Auger	3.5	4.5	No - Flooded
B20	Hand Auger	5.0	Not Encountered	Yes
B21	Direct Push	3.0	4.0	No - Flooded
B22	Direct Push	1.5	2.5	Yes
B23	Direct Push	1.5	2.0	No - Flooded
B24	Direct Push	5.0	Not Encountered	Yes
B25	Direct Push	3.0	4.0	Yes
B26	Direct Push	5.0	Not Encountered	No - Flooded
B27	Direct Push	2.5	4.0	Yes



Following the collection of soil samples and installation of soil vapor probes, a permanent traffic rated well box was installed at each location to protect the surface valving for the probes.

Soil vapor samples were collected following the procedure of the DTSC's Advisory approximately two days after the probes were installed. Soil vapor samples were collected in individually certified, one-liter Summa Canisters following the procedure of the DTSC's Advisory. A helium shroud was placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Advisory. Two duplicate soil vapor samples were collected for quality assurance/quality control (QA/QC).

Following the installation of the soil vapor probes, and before sampling of the soil vapor, groundwater seeped into the borings rendering the probes useless, therefore soil vapor samples were not collected from borings B16, B19, B21, B23 and B26. Duplicate samples were collected from B18 and B27. The soil vapor sampling from boring B24 encountered tight soils, limiting the volume of soil vapor that could be collected. During sampling the downhole and canister vacuums equalized at approximately 16 inches of mercury (Hg), therefore sampling was suspended for this location.

During sampling of B20, helium concentrations in the shroud could not be maintained at the desired concentration of 30 percent (30%). The helium canister was changed twice during the purging and sampling to maintain the desired helium concentrations. It was also observed during the purging of B20 that the vacuum of the purging canister was not dropping as would be expected. The purging canister was replaced with another canister to continue purging the sample tubing and probe. B20 was also intended as primary and duplicate sample. Following the completion of purging, it was noted that the vacuum on both the primary and duplicate sample canisters was at or near zero. The summa canisters were removed and replaced with a single summa canister and the sample was proceeded to be collected. During the purging and sampling, the helium meter did not indicate the presence of helium in the sample train however the reported helium concentrations in several samples, indicate that helium may have entered the sample train during the multiple canister changeouts, during purging activities or during sample collection.

The soil vapor samples were delivered under standard COC protocols to Enthalpy the day in which they were sampled and analyzed for TPHg using EPA Method TO-3, VOCs using EPA Method TO-15 and fixed gases (helium, carbon monoxide, carbon dioxide, oxygen, methane, and nitrogen) using ASTM D1946. Citadel's boring logs are included as Appendix F and field notes describing onsite activities are included as Appendix G.

## 5.0 SCREENING LEVELS

Laboratory results above the reporting limits (RL) in each soil and soil vapor sample were compared to the SFBRWQCB ESLs. The Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) and the DTSC Human Health Risk Assessment (HHRA) Note 3 were used when an ESL was not available. The ESLs are included in Tables 1 through 5. Groundwater samples were compared to the SFBRWQCB ESL Maximum Contaminant Level (MCL) Priority list which is a combination of available MCL values and the lower of the cancer and noncancer tap water direct exposure levels if an MCL is not available.



## 6.0 RESULTS AND ANALYSIS

#### Soil Results

Title 22 metals were all below their respective residential ESLs with the exception of arsenic. Arsenic concentrations were within normal background concentrations for sites within the San Francisco Bay area (Duverge, 2011). The Title 22 heavy metals results are summarized in Table 1.

No VOCs were reported above the laboratory MDLs in the samples analyzed with the exception of acetone in samples B22-3 and B22-3D, 2-butanone in sample B22-5 and diisopropyl ether (DIPE) in sample B25-5. The maximum concentration of acetone was 0.026J<sup>1</sup> mg/kg in both samples, the maximum concentration of 2-butanone is 0.0034J mg/kg and the maximum concentration of DIPE is 0.0003J mg/kg. All reported concentrations were at or just above the MDL and well below their respective residential ESLs for acetone and 2-butanone and below the residential RSL for DIPE.

TPH was reported in multiple samples above the MDL as diesel range organics (DRO) and oil range organics (ORO). TPHg was not reported above the MDL in any of the analyzed samples. DRO was reported in 17 samples with a maximum concentration of 36 mg/kg in sample B16-1. ORO was reported in all 20 samples analyzed with a maximum concentration of 110 mg/kg. These results are well below the respective residential ESLs for TPHd and TPHo of 260 mg/kg and 12,000 mg/kg. The VOC and TPH results are summarized in Table 2. Results of TPH and VOCs are shown on Figure 3.

PAHs were reported in multiple samples with 1-methylnaphthalene, 2-methylnaphthalene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene and pyrene reported in one or more samples. All PAH results are below their respective residential ESLs. PAH results are summarized in Table 3.

PCBs were reported in two samples collected in December 2021 with concentrations of Aroclor 1016 reported in samples B16-1 and B17-1 with a maximum concentration of 0.026 J mg/kg in B17-1. All PCB results are below their respective residential ESLs. PCB results are summarized in Table 4 and the Aroclor 1016 results are displayed on Figure 4.

Copies of the complete laboratory reports are included as Appendix H.

#### Soil Discussion

Based on the current investigation, all soil results are below their respective residential ESLs with the exception of arsenic which is within normal background concentrations for the area.

PCB concentrations reported in borings B16 and B17 were reported above the MDL as Arochlor 1016. The concentrations are well below the residential ESL for PCBs

#### Soil Vapor Results

Multiple VOCs and TPHg were reported above the laboratory RL in the soil vapor samples. TPHg exceeded the residential ESL of 20,000 micrograms per cubic meter ( $\mu$ g/m³) in sample B24-5V with a concentration of 35,000  $\mu$ g/m³. VOCs that exceeded the residential ESL for soil vapor in one or

<sup>&</sup>lt;sup>1</sup> J - Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit



more samples included benzene, ethylbenzene, bromodichloromethane, chloroform, tetrachloroethene (PCE) and vinyl chloride.

- Benzene exceeded the residential ESL of 3.2 μg/m³ in five of the seven locations with a maximum concentration of 2,800 μg/m³ in sample B24-5V. The remaining samples ranged in concentration from 2.7 μg/m³ to 17 μg/m³.
- Ethylbenzene exceeded residential ESL of 37 μg/m³ in one sample with a concentration of 41 μg/m³ in B24-5V.
- Bromodichloromethane exceeded the residential ESL of 2.5 μg/m³ in three samples with a maximum concentration of 6.0 μg/m³ in sample B22-1.5V.
- Chloroform exceeded the residential ESL of 4.1 μg/m³ in six of the seven soil vapor sample with a maximum concentration of 110 μg/m³ in sample B18-1.5V.
- PCE exceeded the residential ESL of 15 μg/m³ in two samples with a maximum concentration of 93 μg/m³ in sample B25-3V.
- Vinyl chloride exceeded the residential ESL of 0.32 μg/m³ in one sample with a concentration of 2.5 μg/m³ in sample B24-5V.

Other VOCs reported were either well below their respective residential ESLs or screening levels were not available. A summary of TPH and select VOCs in soil vapor is included in Table 5. The distribution of TPHg and VOCs is shown on Figure 3. Copies of the complete laboratory reports are included as Appendix H.

#### Soil Vapor Discussion

The soil vapor samples were collected using a helium shroud and maintaining a helium concentration of approximately 30% during the entire sampling process. An ambient air leak up to 5% is acceptable if quantitative tracer testing is performed by shrouding (DTSC, 2015). Helium was reported above the laboratory RL in five of the seven samples collected at concentrations ranging from less than 1% to 12%. Three samples exceeded the acceptable 5% concentration with 12% reported in B20-5V, 5.1% reported in B22-1.5V and 4.8% reported in B25-3V. The VOC and TPHg results from these samples are in general agreement with the remaining samples analyzed and doesn't appear to be suppressing the VOC results. Therefore, these results were not excluded from the data set. However given the shallow nature of the sample depths and that helium was reported in several samples, the results may be biased low.

Based on the soil vapor results from this investigation, the planned excavation of surface soils to approximately three feet bgs to mitigate contaminated soils and allow for structural compaction, and the installation of a vapor barrier as part of the proposed new construction, any remaining contaminants will not be a significant health risk to future occupants and workers. The elevated concentrations of TPHg and BTEX in B24-5V appears to be isolated as the concentrations in the other borings are significantly lower. These concentrations may be related to the former USTs that were removed from the southern edge of the Site or impacted groundwater from the upgradient railroad ROW and gasoline service station, although data collected during this investigation does not show a significant contribution of TPHg or BTEX from soil or groundwater at the Site.

Low levels of PCE and vinyl chloride reported in soil vapor samples do not appear to be sourced from the site based on current and historical soil and groundwater data collected at the Site. The soils containing these low concentrations are fill materials and will be removed as part of the Site redevelopment.



Bromodichloromethane and chloroform are trihalomethanes and are common byproducts from the chlorination of drinking water and are not considered to be contaminants from past activities at the Site.

The fill material encountered at the Site is highly compacted and has low permeability to soil vapor as evidenced by the equalization of vacuums at 16 inches of mercury (Hg) in the Summa canister and downhole gauges when collecting sample B24-5V. This was also evidenced by the difficulty in penetrating the hard packed soils drilling the groundwater sample borings.

Soils will be monitored during the Site redevelopment and any impacted soils encountered during excavation activities will be segregated, tested, and removed for offsite disposal.

## 7.0 SUPPLEMENTAL SOIL AND GROUNDWATER SAMPLING

On February 2 and 3, 2022, 20 borings (B28 through B47) were advanced across the Site using a hand augur, a rotary hammer drill or a handheld motorized auger to collect additional soil and groundwater samples. Borings B28 through B32 were placed near borings B16 and B17 to further delineate PCB concentrations in soil encountered in the December 2021 field work. Borings B33 through B47 were spaced evenly across the site to collect groundwater samples to further assess groundwater conditions on the Site potential offsite sources of petroleum and VOCs.

#### Soil

Borings B28 through B32 were advanced with a handheld rotary hammer drill which was decontaminated between uses with a liquinox and water wash followed by a deionized water rinse. Borings B28 through B30 and B32 were each advanced to two feet bgs and B31 was advanced to 1.5 feet bgs. Soil samples were collected at 0.5, 1.0, 1.5 and 2.0 feet bgs in two-foot borings and at 0.5, 1.0 and 1.5 feet bgs in boring B31. The samples were labeled with the boring number and approximate depth. A Site Map showing the sampling locations is included as Figure 5.

Nineteen soil samples were transported the day they were collected under standard Chain-of-Custody (COC) protocols to SGS North America Inc (SGS) in Hayward, California. SGS is an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. The soil samples were analyzed for PCBs by EPA Methods 8082.

#### Groundwater

Fifteen groundwater borings were attempted. Several locations had multiple attempts, but refusal was encountered due to the hard packed base material. A combination of the rotary hammer drill and a handheld motorized auger were used to advance the borings. The drill bits were decontaminated between borings with a liquinox and water wash followed by a deionized water rinse. A summary of the boring results is in the table below:

Boring Number	Boring Depth (Feet)	Groundwater Sample Collected	Comments	
B33	5	Yes	Completed	
B34	2	No	Four attempts were made reaching a maximum of two foot. Boring abandoned.	



B35	2	No	Four attempts were made reaching a maximum of two foot. Boring abandoned.
B36	3	Yes	Two attempts were unsuccessful, reached three feet and groundwater on the third attempt.
B37	3	Yes	Completed
B38	3	Yes	Completed
B39	3	Yes	Two attempts were unsuccessful, reached three feet and groundwater on the third attempt.
B40	3	Yes	Completed
B41	4	Yes	Completed
B42	1	No	Three attempts were made reaching a maximum of one foot. Boring abandoned.
B43	1	No	Refusal at one foot due to hard packed base material. Boring abandoned.
B44	2	No	Refusal at two feet in two attempts. Boring abandoned.
B45	3	Yes	Two attempts reached three feet before refusal without encountering groundwater. Location moved closer to fence and was successful.
B46	3	Yes	Two attempts reached three feet before refusal without encountering groundwater. Location moved closer to fence and was successful.
B47	4	Yes	Three attempts reaching a maximum of two feet bgs. Location moved closer to fence and was successful.

Following the completion of 10 borings, groundwater samples were collected from each boring with a new disposal bailer and placed in laboratory supplied sample containers. A duplicate groundwater sample was collected each day.

The samples were delivered under standard COC protocols to SGS the day in which they were sampled and analyzed for TPHg, TPHd and TPHo using EPA Method 8015C and VOCs using EPA Method 8260B.

Citadel's field notes describing onsite activities are included as Appendix G.

#### 8.0 RESULTS AND ANALYSIS

#### Soil Results

Additional soil samples were collected in the February 2022 investigation to delineate the PCB concentrations reported in B16 and B17. PCBs in the delineation borings were not detected above the laboratory RLs. PCB results are summarized in Table 4 and the Aroclor 1016 results are indicated on Figure 6.

#### **Groundwater Results**

Multiple VOCs and TPH were reported above the laboratory MDLs in the groundwater samples. Results were compared to the MCL Priority list. Groundwater was encountered at depths between two and five feet during the December 2021 and February 2022 investigations.



Based on the groundwater sample results, a plume of TPHd and TPHo extends across the entire Site. Concentrations of TPHd range from 176J  $\mu$ g/L to 1,920  $\mu$ g/L. The maximum concentrations are generally above 1,000  $\mu$ g/L on the western end of the Site and reduce to less than 1,000  $\mu$ g/L on the eastern end of the Site. All results exceeded the MCL Priority concentration of 200  $\mu$ g/L except the in B37-GW. TPHo range from 106J  $\mu$ g/L to 606  $\mu$ g/L. The maximum concentrations follow the same trend as TPHd with concentrations generally above 300  $\mu$ g/L on the western end of the Site and below 300  $\mu$ g/L on the eastern end of the Site. TPHg is only reported in one sample at 51.7J  $\mu$ g/L in B40-GW which is located in the north-central portion of the Site. Please refer to Figure 7.

Various VOCs were reported across the Site. The MCL Priority concentrations were not exceeded with any of the reported VOC concentrations. Benzene was reported in samples B39-GW and B40-GW-D at a maximum concentration of 0.47J  $\mu$ g/L. Toluene was reported in eight of the 10 samples collected with concentrations ranging between 0.37J  $\mu$ g/L in B41-GW and 2.6  $\mu$ g/L in B40-GW-D. Ethylbenzene was reported in one sample with a concentration of 0.59J  $\mu$ g/L in B40-GW-D. Total xylenes were reported in four of 10 samples with concentrations ranging from 1.5J  $\mu$ g/L in G33-GW-D to 3.1  $\mu$ g/L in B40-GW-D. Please refer to Figure 8. Other VOCs reported in one or more samples include acetone, 2-butanone, chlorobenzene, chloroform, cis-1,2-dichloroethene, methyl bromide, naphthalene, tetrahydrofuran, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. All reported concentrations were below the MCL Priority concentrations for acetone, 2-butanone, chlorobenzene, chloroform, cis-1,2-dichloroethene and naphthalene.

Laboratory results for TPH and select VOCs are included in Table 6.

#### Groundwater Discussion

Based on the distribution of TPH across the Site, the plume may be migrating onto the Site from an offsite source to the north. Groundwater flow is generally expected to flow to the south-southwest towards the Oakland Inner Harbor which is located approximately 3,300 feet south of the Site.

Several environmental cases were identified for sites located north of the Site. An active gasoline service station located approximately 140 feet north of the Site at 1395 Seventh Street on the corner Mandela Parkway and Seventh Street (Truckers Friend). The site has been an open case with the ACDEH since 1996. A former brewery located at 533 Kirkham Street also lies directly north of the Site. Information obtained from the DTSC EnviroStor website indicated that the site formerly had a crude oil UST located at the eastern end of the site and is an open environmental case with the DTSC. The former Smilo Chemical Company and J&A Truck Repair is located at 500 Kirkham Street and occupies the property located east of Kirkham between Fifth Street and Seventh Street. Based on their locations and the anticipated groundwater flow direction, they all could be contributing to the TPH plume beneath the Site.

## 9.0 DATA VALIDATION

Citadel performed a USEPA Level 2A validation of the laboratory analytical results. The data validation was performed to evaluate the usefulness and adequacy of the laboratory data for use in the vapor intrusion risk screening conducted as part of this investigation. Based on the results of the data validation,100% of the data is acceptable. Data qualifiers were added to the soil results for samples B22-3 and B25-5 were qualified with a "J-flag" (approximate values), due to the relative percent differences (RPD) between the normal and field duplicate samples exceeding 25% Data Validation. A "B" qualifier was added to several soil and groundwater TPH results indicating that the analyte was found in the sample and the associated laboratory blank.



The data validation summary was prepared in accordance with the following documents:

- ➤ Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. (USEPA, 2009)
- Advisory Active Soil Gas Investigations [California Environmental Protection Agency Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board, 2015]
- ➤ Supplemental Guidance: Screening and Evaluating Vapor Intrusion Draft for Public Comments (DTSC and California Water Resources Control Boards, 2020)

The following QA/QC parameters were evaluated, consistent with a USEPA Level 2A validation (USEPA, 2009)

- Holding times
- > Sample preservation
- > Field documentation
- Laboratory receiving forms and chains of custody (COC)
- > Laboratory and field blanks
- Laboratory control sample/laboratory control sample

Field documentation, COC, and lab receiving notes were reviewed as part of the validation. Field forms were reviewed for compliance with the DTSC guidance (DTSC, 2015). Field documentation indicates all canisters had sufficient vacuum prior to sampling, each sample train had a successful shut-in test and field leak test using a helium shroud. Helium was detected in several of the vapor samples. The lab reports were evaluated for agreement with the COC documentation. Samples were received by Enthalpy in one-Liter SUMMA canisters in good condition. The COC included in the reports recorded negative pressures for each canister on receipt by the lab. Qualifiers were not applied.

- > Since the data objectives for the study is to conduct a vapor intrusion risk assessment the most conservative approach was taken with respect to the detections, which are qualified "J-" as estimated, assuming a low bias.
- ➤ Where applicable by the method requirements, Laboratory Control Samples and Laboratory Control Sample Duplicates (LCS/LCSD) percent recoveries (%R) and relative percent differences (RPDs) were reviewed during data validation. LCS/LCSD %R and RPDs were within control limits without exceptions.
- > Surrogate percent recoveries were reviewed and were reported within the laboratory determined limit without exceptions.
- ➤ The SUMMA canisters were pressurized as required for testing per the method requirements. Non-detected results were reported to the reporting limit. Some of the sample results were reported as dilutions due to either a matrix effect or so the sample result would fall within the calibration range.
- ➤ Given the shallow nature of the sample depths and that helium was reported in several samples, the results may be biased low.
- ➤ Field duplicates were collected and analyzed for his project. Field duplicate RPD control limits for gas samples were 25%. Field duplicate RPD was only evaluated where one or both of the samples had a reported result above the RL.



## 10.0 CONCEPTUAL SITE MODEL

#### Geology

The Bay Area is identified as a structural depression within the geologically complex and seismically active California Coast Ranges Geomorphic Province. The Coast Ranges have been divided into the northwest-trending Coastal, Central, and Eastern tectonic belts, and include several sub-parallel northwest-trending faults, mountain ranges, and valleys characterize the Coast Ranges topography. The Bay is bordered by nearly parallel northwest-southeast trending mountain ranges; the Santa Cruz Mountains to the west and the Diablo Range to the east. Extensive late Cretaceous through early Tertiary folding and thrust faulting created complex geologic structural conditions that underlie the highly varied topography of today.

The City of Oakland has identified three Oakland-specific soil types that can be used for determining site specific target levels. These soil categories are Merritt Sands, sandy silts and clayey silts. Merritt sands are primarily located in flatlands to the west of Lake Merritt and consist of fine-grained silty sand with lenses of sandy clay and clay. Merritt sands typically feature low moisture content and high permeability. Sandy silts are generally found throughout the East Bay and consist of unconsolidated, moderately sorted sand, silt, and clay. These are considered moderate permeability deposits. Clayey silts are found primarily along the bay and estuary and typically contain organic material, peat, and thin lenses of sand. Clayey silts are typically low permeability deposits.

Based on drilling logs developed by Citadel as part of the previous and current subsurface investigations, shallow sediments across the Site consist of a mixture native and imported soils consisting of silty clay, clayey silt, sandy silt, and silty sand. The fill layer extends from the surface to an average depth of about four to five feet bgs across most of the Site and is underlain mostly by silty sand deposits that are assumed to represent the Merritt sand unit.

#### Hydrogeologic Setting

West Oakland is situated on the East Bay plains, a broad alluvial pediment consisting of a thick sequence of Pleistocene age alluvial and marine sediments. The basal Pleistocene sediments are overlain by Holocene age Bay Mud, and alluvial and fluvial deposits derived from the erosion of Diablo Range. The East Bay plains are bounded to the west by the San Francisco Bay, and to the east by the Hayward fault which forms a steep structural boundary between the thick alluvial deposits comprising the East Bay plain and mountains of the Diablo Range. The East Bay plains sediments mantle the Franciscan Assemblage Complex; Jurassic-Cretaceous age bedrock comprised mostly of detrital sedimentary rocks (sandstone, siltstone) with subordinate basaltic volcanic rock, chert and greenstone, with minor limestone. Bedrock at the subject site is on the order of 500 to 550 feet deep (as reported in Parikh, 2019).

Groundwater was present at approximately four feet bgs in March 2011 and 11 feet bgs in June 2016. Groundwater was found as shallow as two feet bgs during this investigation. Groundwater was encountered at the West Oakland BART station located approximately 320 feet northwest of the Site at depths between 6.5 and 11 feet bgs. (Parikh, 2019). Groundwater at the former Smilo Chemical site located north and east of the Site was encountered at depths ranging from four to 12 feet bgs in the portion of the site located north of the BART tracks and between four and 6.5 feet bgs in the portion south of the BART tracks.



Groundwater in the local area reportedly flows to the southwest and is part of the East Bay Sub Basin of the Santa Clara Valley Basin (Number 2-9.04). Existing beneficial uses include municipal, agricultural, and industrial process supply; however, it is probable that the groundwater is not suitable for these uses due to high total dissolved solid (TDS) content (reportedly as high as 2,400 milligram per liter (mg/L)). The TDS levels may be naturally occurring due to the proximity of the Site to the bay.

#### Source

A Phase I Environmental Site Assessment (Phase I) report was prepared by SCS Engineers (SCS) in 2018 (SCS, 2018). SCS identified two off-Site releases of petroleum products and hazardous wastes in the vicinity of the Site, the Trucker's Friend facility located approximately 140 feet north of the Site at 1395 Seventh Street, and J&A Truck Repair/Smilo Chemical Company located at 500 Kirkham Street directly east of the Site. Various former breweries were located at 533 Kirkham Street which is also directly north of the Site.

<u>533 Kirkham Street:</u> The eastern portion of the property was developed for use by various breweries since at least 1912 until 1961. The brewery included two stock houses, one of which contained a tank house with two above ground tanks and a 15,000-gallon underground crude oil tank. The Site has cleared and has been continuously used as a parking lot serving the West Oakland BART Station since 1968. A map shows the former aboveground tanks were located in the north central portion of the Site and the crude oil UST was located in the east central portion of the Site.

<u>Iruckers Friend:</u> This facility is located on the north side of the BART right-of-way that is adjacent to the north side of the Site. One 520-gallon waste oil UST was removed from the facility in 1996 and in 1997, one 4,000-gallon unleaded gasoline UST, one 8,000-gallon diesel UST, and one 9,000-gallon diesel UST were removed along with the associated pipelines and fuel dispensers. These USTs were removed and replaced with a new 20,000-gallon double-walled UST.

The majority of the release from the gasoline/diesel system appears to have come from the pipelines and fuel dispensers with a maximum concentration of 20,000 parts per million (ppm) TPHd. The highest TPHg/TPHd concentrations from the former waste oil UST pit was reported to be 180/2,400 ppm, respectively.

An analytical report of groundwater samples collected near the UST pit did not report concentrations of TPHg or benzene, toluene, ethylbenzene, or xylenes. The samples were reported to have TPHd concentrations of 130, 140, 500, and 670  $\mu$ g/L (SCS, 2008).

<u>J&H Truck Repair/Smilo Chemical Company:</u> This facility was assessed and mitigated as part of the Cypress Freeway (1-880) Reconstruction Project. The site was formerly known as Smilo Chemical Company, which operated as a chemical repackaging company. It was later used as a truck repair facility in which the facility occupied approximately one third of the property. It was reported that the "Completed PEA [Preliminary Endangerment Assessment] found the Site had elevated levels of petroleum hydrocarbons, PCBs, metals, semi-and volatile organic compounds" and that "Approximately 4,700 cubic yards of soil was excavated to six feet below ground surface.

An unpermitted 2,000-gallon UST and sump were used by the Smilo Chemical Company. A PEA report was completed in March 1995. Soil samples collected revealed elevated levels of TPHg (max. 6,500 ppm), TRPH total recoverable petroleum hydrocarbons (TRPH) (max. 4,500 ppm). Elevated levels of VOCs such as acetone (max. 250 ppm), benzene (max. 7,700 parts per billion (ppb), and total xylenes (max. 250,000 ppb) were detected in soil samples collected near the sump and UST. Semi-VOCs (SVOCs), including Bis(2-Ethylhexyl) Phthalate (max. 250,000 ppb), were



also detected near the sump and UST. Ground water samples displayed high levels of VOCs including benzene (max. 15,000 µg/l), toluene (max. 2,100 µg/l) and total xylenes (max. 7,200 µg/l).

Records also reported a former 3,000-gallon diesel UST in the southeastern portion of the Site (Reported in SCS, 2008).

#### Contaminant and Exposure Pathways

Based on the assessment of all available data for the Site, the concentrations of VOCs in site environmental media do not pose adverse effects to human health and the environment provided a vapor barrier is installed as part of the Site redevelopment. This section summarizes sensitive receptors observed near the site, as well as a water supply well survey, potential exposure pathways, and comparison of VOC concentrations in site media to human health risk-based screening levels.

The Site fronts Fifth Street on the south, Mandela Parkway on the west, the BART ROW on the north and Kirkham Street on the East in Oakland, California. The Site and the surrounding commercial areas are primarily covered with asphalt, concrete or bare soils. Land use in the Site vicinity is primarily commercial/industrial or vacant. The closest residential neighborhood is located approximately 360 feet to the south and apartment buildings and additional residential areas begin approximately 370 feet north of the Site. Commercial and industrial properties surrounding the Site include:

- An active gasoline station and convenience store is located on the southeast corner of Mandela Parkway and Seventh Street approximately 140 feet north of the Site;
- The Oakland West BART station occupies the block immediately west of the Site;
- A water softener equipment supplier occupies a building is located on the southwest corner of Mandela Parkway and Fifth Street;
- A Civicorps Job Training center is located adjacent to the water softener equipment supplier on Fifth Street;
- An apparently abandoned warehouse and parking lot occupy the block directly south of the Site on Fifth Street;
- A vacant lot that was formerly the J&H Truck Repair/Smilo Chemical Company occupies
  the lot directly east of the Site and is bounded by Kirkham Street on the west, Seventh
  Street on the north, Union Street on the east and Fifth Street on the South. The Site also
  contained a portion of Interstate 880 before it was rerouted to the south; and
- The former brewery site is located directly north of the Site and is bounded by Seventh Avenue on the north, Kirkham Street on the east, the BART ROW on the south, Mandela Parkway on the west and the gasoline service station on the northwest. A residential development is planned for this site.

Other sensitive receptors within 1,000 feet of the Site include a public park

The residential area located north of the Site is upgradient of the Site, and unlikely to have been affected by any releases from the Site. A residential area is located approximately 500 feet downgradient from the Site and can potentially be impacted by upgradient releases at the Site or releases from the adjacent sites.

The Site lies in the East Bay Plan Sub Basin of the Santa Clara Valley Basin. Existing municipal and domestic uses for groundwater include industrial process supply, industrial service supply, and agricultural water supply. Based on files reviewed as part of Phase I report, SCS concluded there is a high likelihood that the groundwater at the Site is not suitable as a drinking water resource due



to the high amount of total dissolved solids (TDS). Two groundwater samples collected by RSI reported TDS results of two groundwater samples they collected at the Site -2 as 2,400 and 1,800 milligrams per liter (mg/L). The TDS Maximum Contaminant Level (MCL) for Municipal Supply pursuant to the Basin Plan is 500 mg/L. SCS understands that the reported TDS levels for groundwater samples collected from the Site are consistent with other TDS concentrations in the Site vicinity and that there is a high likelihood that the TDS are naturally occurring due to the proximity of the Site to the bay (SCS, 2018). No water supply wells are known within one mile of the Site according to the State Water Resources Control Board (SWRCB) GAMA Groundwater Information System website.

The site is devoid of ecological habitat and surface water; therefore, ecological receptors are absent from the site. The nearest surface water body located approximately 3,300 feet south of the Site is the Oakland Inner Harbor which is connected to the San Francisco Bay.

Potential transport and release mechanisms and receptors include volatilization of VOCs in groundwater or direct migration of soil vapor to indoor air. This is not seen as a potential release mechanism due to the low VOC concentrations in groundwater and the proposed redevelopment of the Site to include a vapor barrier and hardscaping of the open areas. Shallow groundwater at the Site is not used as a drinking water source. Contamination observed at the Site has been restricted to the shallow non-potable groundwater zone. Therefore, potential direct contact exposure to VOCs in groundwater, such as tap water ingestion, dermal contact with tap water, and inhalation of VOCs released from tap water are not expected to occur for onsite commercial workers and offsite commercial workers and residents. Redevelopment of the Site will expose construction workers to constituents in soil via direct contact exposure pathways i.e., ingestion, inhalation or dermal contact. All chemicals documented to be present in onsite soils are below the residential ESLs and safe for construction workers at the site.

## 11.0 CONCLUSIONS AND RECOMMENDATIONS

The current investigations were intended to evaluate subsurface conditions to determine if historic and current operations have impacted the soil, soil vapor and groundwater conditions at the Site. Citadel collected 55 soil samples, seven soil vapor samples and 10 groundwater samples from 32 borings across the Site. The December 2021 soil samples were analyzed for Title 22 metals, TPH, VOCs, PAHs and PCBs. The February 2021 soil samples were analyzed for PCBs. The soil vapor samples were analyzed for TPHg and VOCs. The groundwater samples were analyzed for TPH and VOCs.

The results from the soil, soil vapor and groundwater sampling area as follows:

- Title 22 metals in soil were all below their respective residential ESLs with the exception of arsenic which was within the normal San Francisco Bay background concentrations.
- Acetone, 2-butanone and DIPE were the only VOCs reported in the soil sample laboratory analysis. All results were below the respective residential ESLs for acetone and 2-butanone and below the residential RSL for DIPE.
- TPH reported as TPHd and TPHo were reported in multiple soil samples. All reported results were well below the residential ESLs for TPHd and TPHo.
- PAHs were reported in multiple soil samples. All PAH results are below their respective residential ESLs or residential HHRA Note 3 screening levels.
- The PCB Aroclor 1016 was reported in two soil samples in the December 2021 investigation. Additional sampling conducted to define the horizontal limits of the PCB impacts was



- conducted in the February 2022 investigation and all PCB results were below their respective MDLs All PCB results are below their respective residential ESLs.
- TPHg, benzene, ethylbenzene, PCE and vinyl chloride are reported in one or more soil vapor samples at concentrations above their respective residential ESLs.
- Bromodichloromethane and chloroform reported in soil vapor are common byproducts of chlorinated drinking water and are not considered contaminants from past activities at the Site.
- Several VOCs were reported in groundwater at the Site. All reported concentrations were below their respective MCL Priority concentrations.

The elevated concentrations of TPHg and BTEX in B24-5V appear to be isolated as the concentrations in the other borings are significantly lower. These concentrations may be related to the former USTs that were removed from the southern edge of the Site or groundwater from the upgradient railroad ROW and gasoline service station.

Three soil vapor samples appeared to have leaks of ambient air during sampling that exceeded the DTSC recommended maximum of five percent. The results from these three samples were within the range of results from the remaining samples and were not excluded from the data set. However the results are likely biased low due to the shallow sample depths and helium infiltration into the sample.

TPHd and TPHo concentrations in groundwater were reported in samples collected from across the entire Site. TPHd concentrations exceed the MCL Priority concentration in all but one sample.

Concentrations of TPHd and TPHo are generally higher on the western end of the Site compared to the eastern end of the Site and could be sourced from the active gasoline service station and former brewery that are both located upgradient and directly north of the Site.

Insignificant concentrations of VOCs were reported in groundwater, indicating that the OCE, TCE and viyl chloride reported in the December soil vapor results ar limited to a small area in the southwest portion of the Site. No source for these contaminants has been located. Given that vinyl chloride is present, the source is likely historic in nature.

The results of the current investigations indicate that residual concentrations of contaminants are present in soil, soil vapor and groundwater at the Site. ACDEH previously indicated concurrence that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site protective practices such as removal, a vapor barrier and hardscaping of the Site open areas.

#### **Recommendations**

Citadel recommends the that a soil management plan (SMP) be submitted to the ACDEH for approval. The SMP will provide guidance for the general contractor and grading contractor during soil removal and grading operations. The purpose of the SMP is to indicate best management practices when disturbing soil with residual contaminants and direct actions if potential contaminants are encountered.

Citadel further recommends that any contaminated soil be identified during soil disturbance and removed from the Site using a licensed and qualified waste disposal company.



Finally, Citadel recommends the design and implantation of a vapor barrier across the footprint of the building and that the remainder of the Site be hardscaped.

Based on the results of these investigations and the engineering controls planned for the future development, on behalf of Michaels Development, Citadel has no further recommendations and requests closure of the Site to accept residential occupancy.



#### 12.0 REFERENCES CITED

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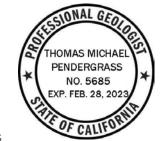
#### 13.0 LIMITATIONS

This Phase II Site 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.



## **14.0 SIGNATURES**

Report Prepared by:



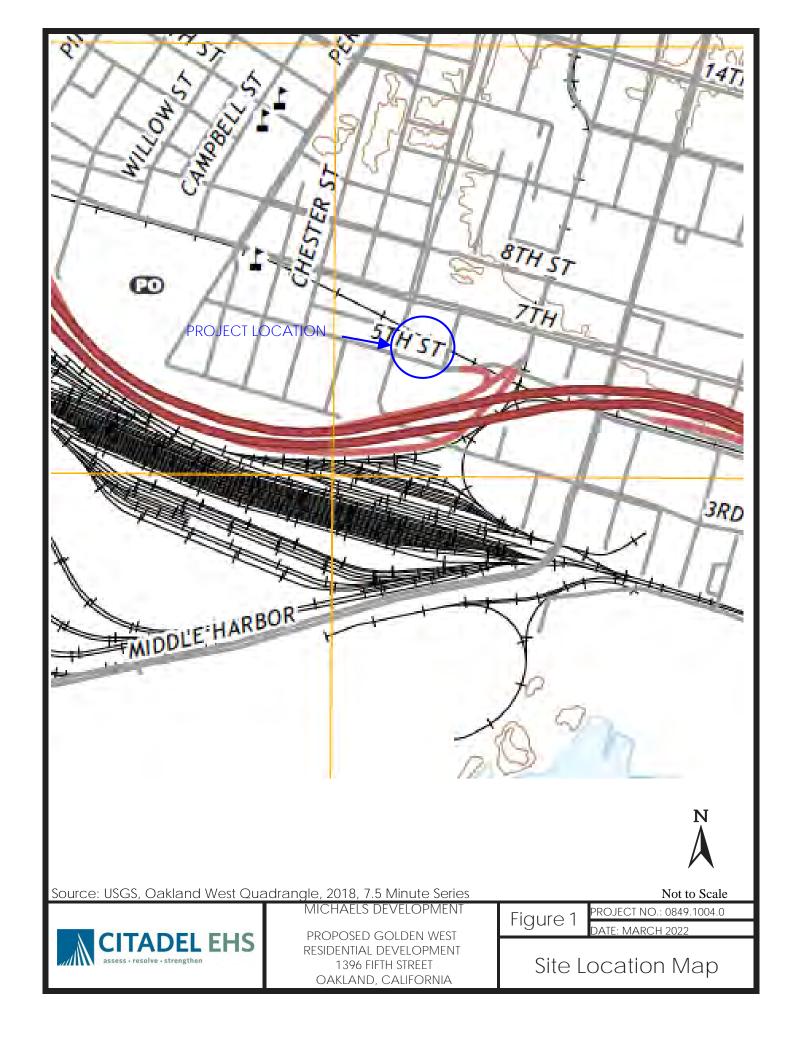
T. Michael Pendergrass, PG Senior Project Geologist, Engineering and Environmental Sciences

Reviewed by

Mark Drollinger, M. Eng., CSP, CHMM Principal, Engineering and Environmental Sciences



**Figures** 







APPROXIMATE SITE BOUNDARY



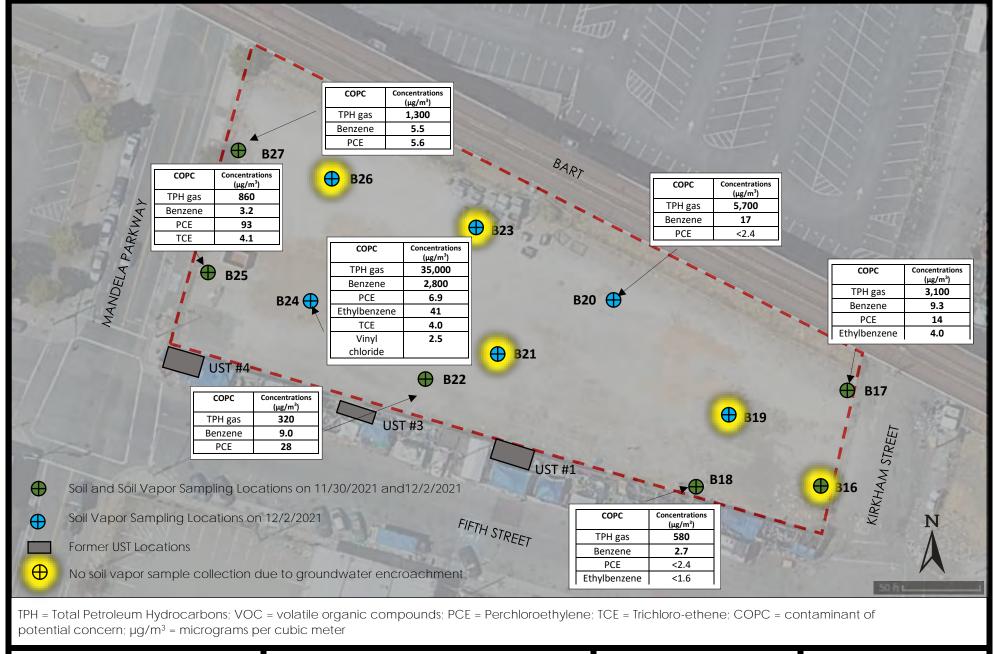
MICHAELS DEVELOPMENT

PROPOSED GOLDEN WEST RESIDENTIAL DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA Figure 2

PROJECT NO: 0849.1004.0

DATE: MARCH 2022

Site Map





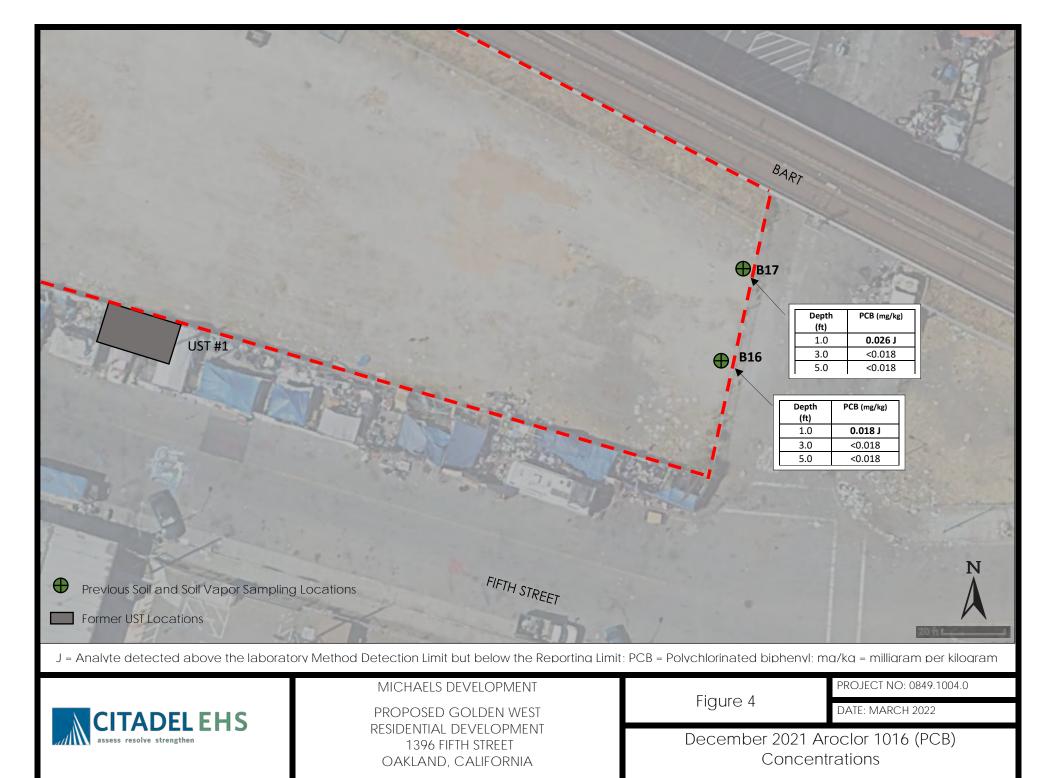
MICHAELS DEVELOPMENT PROPOSED GOLDEN WEST RESIDENTIAL DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA

Figure 3

PROJECT NO: 0849.1004.0

DATE: MARCH 2022

TPH and VOC Concentrations in Soil Vapor







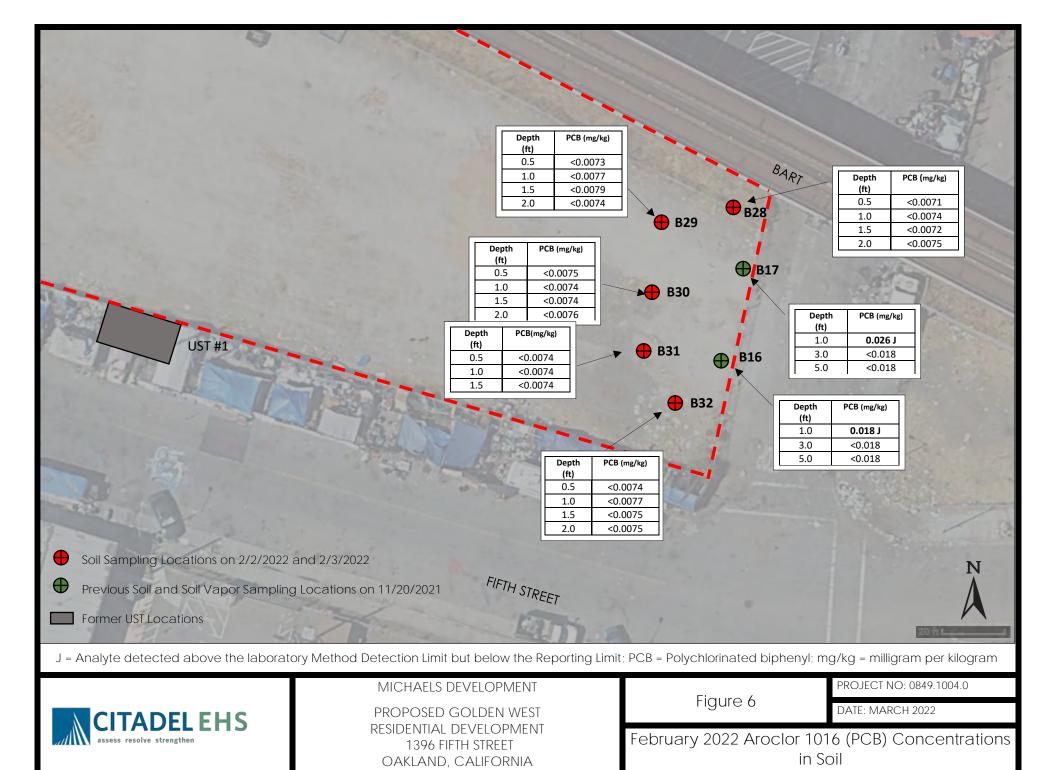
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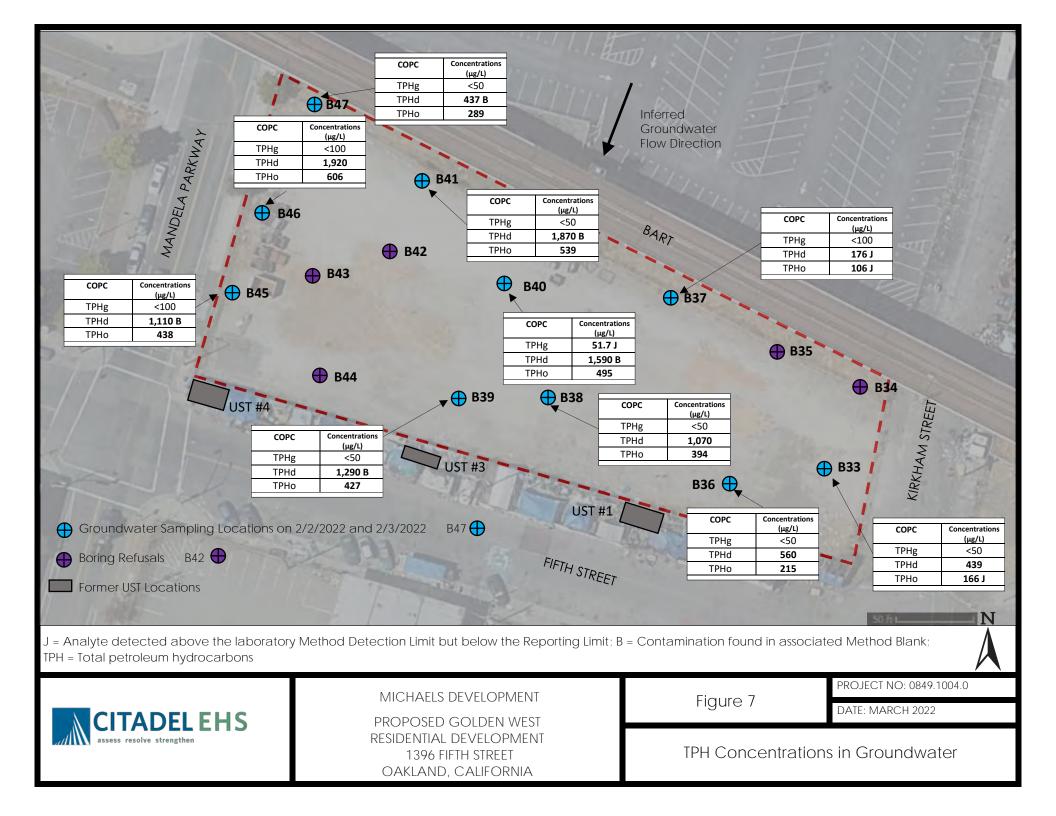
Figure 5

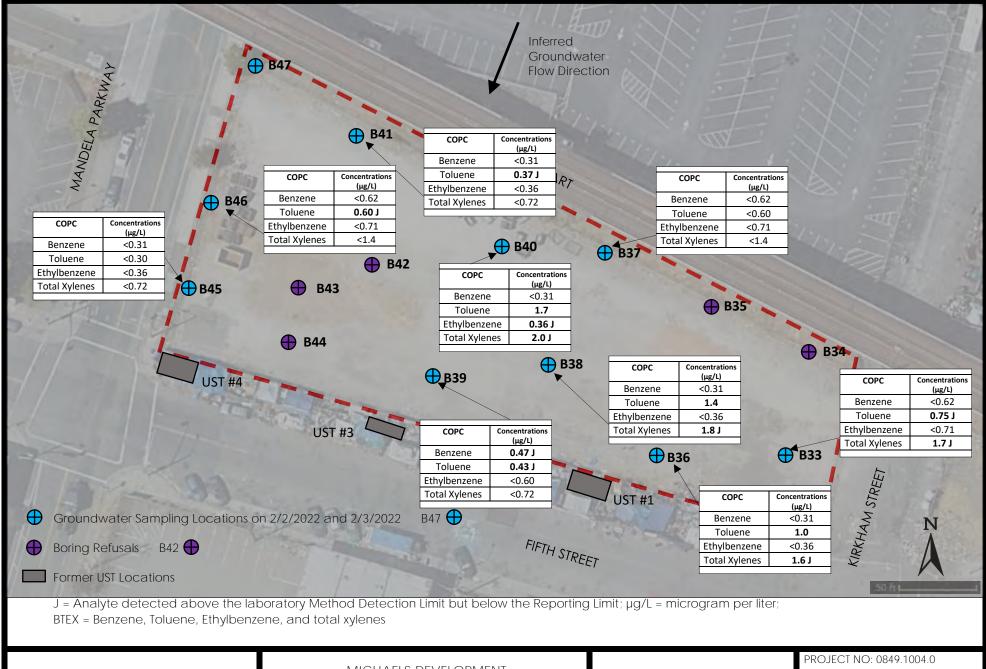
PROJECT NO: 0849.1004.0

DATE: MARCH 2022

Boring Locations









MICHAELS DEVELOPMENT

PROPOSED GOLDEN WEST RESIDENTIAL DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA

Figure 8

DATE: MARCH 2022

BTEX Concentrations in Groundwater



**Tables** 

# Table 1 Title 22 Metals in Soil 1396 Fifth Street Oakland, California

											tle 22 Meta ethod 6010E									
Sample ID	Depth (feet bgs)	Date Sampled	Antimony	Arsenic*	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molyb- denum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Comments
										milligrams	per kilogra	ım (mg/kg)								
B16-1	1	11/30/2021	<1.5	4.5	190	0.27 J	<0.069	41	8.0	27	20	0.14 J	0.67 J	46	< 0.37	< 0.15	0.69 J	59	58	
B16-3	3	11/30/2021	<1.3	2.3	67	0.15 J	<0.063	32	5.3	8.3	6.9	< 0.047	< 0.49	27	< 0.33	< 0.13	<0.48	24	26	
B16-5	5	11/30/2021	<1.7	2.4	57	0.22 J	<0.082	40	5.5	7.9	3.0	< 0.041	< 0.64	37	< 0.43	< 0.17	0.76 J	33	24	
B17-1	1	11/30/2021	<1.7	4.6	210	0.25 J	<0.078	42	7.8	24	17	0.13 J	<0.61	48	< 0.42	< 0.17	0.76 J	65	53	
B17-3	3	11/30/2021	<1.6	4.7	200	0.26 J	< 0.077	45	8.6	23	19	0.33	< 0.61	56	< 0.41	< 0.16	0.62 J	56	57	
B17-5	5	11/30/2021	<1.6	3.8	170	0.30 J	0.077 J	36	5.8	18	14	0.062 J	1.0	40	< 0.39	<0.16	0.80 J	46	45	
B18-1	1	11/30/2021	<1.6	4.5	170	0.27 J	0.095 J	38	6.2	22	19	0.10 J	0.68 J	42	< 0.40	< 0.16	0.80 J	47	47	
B18-3	3	11/30/2021	<1.8	2.0	48	< 0.12	<0.082	32	4.0	6.4	2.2	< 0.039	< 0.65	23	< 0.44	<0.18	<0.64	22	16	
B18-5	5	11/30/2021	<1.7	3.0	56	0.36 J	<0.078	45	6.9	8.0	3.4	<0.046	<0.61	36	< 0.42	< 0.17	<0.60	38	19	
B22-1	1	11/30/2021	<1.7	4.4	210	0.29 J	<0.078	46	7.5	23	15	<0.045	0.87 J	57	< 0.42	< 0.17	<0.60	62	54	
B22-3	3	11/30/2021	<1.5	3.5	170	0.25 J	0.075 J	39	5.8	18	11	< 0.043	0.79 J	50	< 0.36	<0.15	< 0.53	54	42	
B22-3D	3	11/30/2021	<1.4	3.6	150	0.26 J	<0.066	32	5.5	17	11	< 0.039	0.74 J	42	< 0.35	< 0.14	0.78 J	49	40	Duplicate
B22-5	5	11/30/2021	<1.3	6.0	150	0.22 J	0.19 J	39	6.6	21	20	0.17	0.63 J	37	< 0.33	< 0.13	0.52 J	42	440	
B25-1	1	11/30/2021	<1.5	4.3	200	0.28 J	< 0.072	38	7.2	22	14	0.058 J	0.60 J	51	<0.38	< 0.15	<0.56	61	51	
B25-3	3	11/30/2021	<1.4	3.5	190	0.26 J	<0.067	41	6.9	26	15	0.083 J	0.76 J	47	< 0.36	< 0.14	<0.52	59	49	
B25-5	5	11/30/2021	<1.4	2.4	120	0.26 J	<0.066	32	6.8	17	18	5.5	<0.52	28	< 0.35	< 0.14	0.55 J	46	37	
B27-1	1	11/30/2021	1.7 J	2.2	110	0.26 J	<0.068	29	12	23	10	1.1	< 0.53	32	0.66 J	< 0.14	< 0.52	77	53	
B27-1D	1	11/30/2021	1.5 J	1.9	94	0.21 J	<0.069	40	13	28	12	1.2	<0.55	29	< 0.37	< 0.15	< 0.54	85	49	Duplicate
B27-3	3	11/30/2021	2.0 J	2.0	110	0.28 J	< 0.073	37	15	29	10	1.3	< 0.57	39	< 0.39	< 0.16	< 0.56	84	54	
B27-5	5	11/30/2021	2.1 J	1.1	89	0.35 J	<0.077	30	20	36	10	1.1	<0.60	43	0.73 J	< 0.16	< 0.59	130	66	
ESL - Resident	ial Soil		11	0.067	15,000	16	78		23	3,100	80	13	390	820	390	390	0.78	390	23,000	
ESL - Construc	L - Construction Worker			0.98	3,000	27	51		28	14,000	160	44	1,800	86	1,700	18,000	3.5	470	110,000	

#### Notes:

bgs = below ground surface

- -- = No regulatory criterion
- J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
- < = Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 6010B/7471A.
- ESL = Environmental Screening Levels (SFBRWQCB, 2019)

Bold = Analyte detected above the MDL

\*Arsenic concentrations fall within the mean of 4.61 mg/kg and upper estimate of 11 mg/lg for regional background arsenic concentrations in the San Francisco Bay area (Duverge, 2011) Duverge, Dylan Jacques, 2011. Establishing Background Arsenic in Soil of the Urbanized San Fransicso Bay Region, Master's Thesis, San Francisco State University.



### Table 2 Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) in Soil 1396 Fifth Street Oakland, California

			Total Pe	etroleum Hydroc	carbons					Volatile Organ EPA Meth	ic Compounds od 8260B					
Sample ID	Depth (feet bgs)	Date Sampled	TPH Gasoline EPA 8015B	DRO C10-C28 EPA 8015M	ORP C28-C44 EPA 8015M	Acetone	Benzene	Toluene	Ethyl-benzene	o-Xylene	m,p-Xylene	2-Butanone	Diisopropyl Ether (DIPE)	Tetrachloro- ethene (PCE)	Trichloro- ethene (TCE)	Comments
								milligrar	ms per kilogram (	mg/kg)						
B16-1	1	11/30/2021	< 0.24	36	110	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
B16-3	3	11/30/2021	< 0.24	3.0 J	5.6 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
B16-5	5	11/30/2021	< 0.24	<2.4	4.5 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B17-1	1	11/30/2021	< 0.24	26	77	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B17-3	3	11/30/2021	< 0.24	32	47	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B17-5	5	11/30/2021	< 0.24	2.7 J	5.4 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B18-1	1	11/30/2021	< 0.24	17	21 B	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B18-3	3	11/30/2021	< 0.24	<2.4	4.7 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B18-5	5	11/30/2021	< 0.24	<2.4	4.6 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B22-1	1	11/30/2021	< 0.24	15	21 B	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
B22-3	3	11/30/2021	< 0.24	11	17 BJ	0.026 J	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
B22-3D	3	11/30/2021	< 0.24	9.8 J	16 BJ	0.026 J	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	Duplicate
B22-5	5	11/30/2021	< 0.24	6.9 J	11 BJ	< 0.025	< 0.0002	< 0.0005	<0.0004	< 0.0003	<0.0008	0.0034 J	< 0.0003	<0.0006	< 0.0005	
B25-1	1	11/30/2021	< 0.24	15	19 BJ	< 0.025	< 0.0002	< 0.0005	<0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	< 0.0006	< 0.0005	
B25-3	3	11/30/2021	< 0.24	9.9 J	14 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
B25-5	5	11/30/2021	< 0.24	3.1 J	5.7 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	0.0003 J	< 0.0006	< 0.0005	
B27-1	1	11/30/2021	< 0.24	15	85	< 0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	< 0.0032	<0.0003	<0.0006	< 0.0005	
B27-1D	1	11/30/2021	< 0.24	5.7 J	9.8 BJ	< 0.025	<0.0002	< 0.0005	<0.0004	< 0.0003	<0.0008	< 0.0032	<0.0003	<0.0006	<0.0005	Duplicate
B27-3	3	11/30/2021	< 0.24	7.2 J	16 BJ	< 0.025	< 0.0002	< 0.0005	<0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	<0.0005	
B27-5	5	11/30/2021	< 0.24	3.3 J	6.2 BJ	< 0.025	< 0.0002	< 0.0005	< 0.0004	< 0.0003	<0.0008	< 0.0032	< 0.0003	<0.0006	< 0.0005	
ESL - Residen	SL - Residential Soil 430 260 12,000					61,000	0.33	1,100	5.9	580	580	27,000	2,200*	0.59	0.95	
ESL - Constru	ction Worker		1,800	1,100	54,000	270,000	33	4,700	540	2,400	2,400	120,000		33	18	

#### Notes:

bgs = below ground surface

- -- = No regulatory criterion
- < = Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 8015B or 8260B
- J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
- B = Contamination found in associated Method Blank
- ESL = Environmental Screening Levels (SFBRWQCB, 2019)
- \* EPA Regional Screening Levels (RSLs) (2020)
- DRO = Diesel Range Organics
- ORO = Oil Range Organics
- Bold = Analyte detected above the MDL



## Table 3 Polycyclic Aromatic Hydrocarbons (PAHs) in Soil 1396 Fifth Street Oakland, California

										F	olycyclic Arom EPA Metho	atic Hydrocarb od 8270C-SIM	ons								
Sample ID	Depth (feet bgs)	Date Sampled	1-Methyl- naphthalene	2-Methyl- naphthalene	Acenaph- thene	Acenaphthy- lene	Anthracene	Benzo[a]- anthracene	Benzo[a]- pyrene	Benzo[b]- fluoran-thene	Benzo- [g,h,i]- perylene	Benzo[k]- fluroan- thene	Chrysene	Dibenz[a,h]- anthracene	Fluoran- thene	Fluorene	Indeno- [1,2,3-cd]- pyrene	Naphtha- lene	Phenan- threne	Pyrene	Comments
											milligrams per	kilogram (mg/k	(g)								
B16-1	1	11/30/2021	<0.010	<0.016	< 0.013	< 0.036	< 0.013	< 0.021	0.024 J	< 0.027	< 0.018	0.020 J	0.030 J	< 0.022	0.045 J	<0.011	< 0.021	< 0.016	0.021 J	0.047 J	
B16-3	3	11/30/2021	<0.0021	< 0.0032	<0.0025	< 0.0071	<0.0025	< 0.0043	<0.0035	< 0.0054	< 0.0037	<0.0025	<0.0036	< 0.0044	0.0025 J	<0.0021	< 0.0041	<0.0032	< 0.0032	0.003 J	
B16-5	5	11/30/2021	<0.0021	< 0.0032	<0.0025	< 0.0071	<0.0025	< 0.0043	<0.0035	< 0.0054	<0.0037	<0.0025	<0.0036	< 0.0044	<0.0025	<0.0021	< 0.0041	<0.0032	< 0.0032	<0.0021	
B17-1	1	11/30/2021	<0.0082	< 0.013	< 0.010	< 0.029	0.011 J	0.028 J	0.031 J	0.028 J	0.022 J	0.028 J	0.040 J	<0.018	0.071	<0.0086	0.019 J	< 0.013	0.053	0.074	
B17-3	3	11/30/2021	<0.0082	< 0.013	< 0.010	< 0.029	< 0.010	0.030 J	0.034 J	0.031 J	0.024 J	0.030 J	0.043	<0.018	0.057	<0.0086	0.019 J	< 0.013	0.025 J	0.065	
B17-5	5	11/30/2021	<0.0082	< 0.013	< 0.010	<0.029	<0.010	< 0.017	< 0.014	<0.021	< 0.015	< 0.010	<0.015	<0.018	0.019 J	<0.0086	<0.016	0.040 J	0.016 J	0.022 J	
B18-1	1	11/30/2021	<0.0082	< 0.013	< 0.010	< 0.029	< 0.010	0.020 J	0.024 J	< 0.021	0.016 J	0.019 J	0.029 J	<0.018	0.054	<0.0086	< 0.016	< 0.013	0.014 J	0.056	
B18-3	3	11/30/2021	< 0.0041	< 0.0063	<0.0050	< 0.014	<0.0050	<0.0085	<0.0070	< 0.011	<0.0073	<0.0050	< 0.0072	< 0.087	< 0.0049	< 0.0042	<0.0081	<0.0063	<0.0063	< 0.0042	
B18-5	5	11/30/2021	< 0.0041	< 0.0063	<0.0050	< 0.014	<0.0050	<0.0085	<0.0070	< 0.011	<0.0073	<0.0050	< 0.0072	<0.087	< 0.0049	< 0.0042	<0.0081	<0.0063	< 0.0063	< 0.0042	
B22-1	1	11/30/2021	<0.0010	<0.016	< 0.013	<0.036	< 0.013	<0.021	<0.018	< 0.027	<0.018	0.014 J	0.025 J	< 0.022	0.042 J	<0.011	<0.021	<0.016	0.021 J	0.044 J	
B22-3	3	11/30/2021	<0.0082	< 0.013	<0.010	< 0.029	<0.010	0.018 J	0.019 J	<0.021	< 0.015	0.018 J	0.026 J	<0.018	0.046	<0.0086	< 0.016	< 0.013	0.027 J	0.050	
B22-3D	3	11/30/2021	<0.041	< 0.063	<0.050	< 0.14	< 0.050	<0.085	<0.070	<0.11	< 0.073	< 0.050	< 0.072	< 0.087	< 0.049	<0.042	<0.081	<0.063	< 0.063	0.050 J	Duplicate
B22-5	5	11/30/2021	<0.0040	<0.0062	<0.0050	< 0.014	<0.0050	<0.0084	<0.0069	< 0.011	<0.0072	<0.0050	< 0.0071	<0.0086	0.010 J	< 0.0042	<0.0081	<0.0062	0.012 J	0.011 J	
B25-1	1	11/30/2021	<0.021	< 0.032	<0.025	< 0.071	< 0.025	< 0.043	<0.035	< 0.054	< 0.037	<0.025	<0.036	< 0.044	0.046 J	<0.021	<0.041	<0.032	< 0.032	0.047 J	
B25-3	3	11/30/2021	<0.041	< 0.064	<0.051	< 0.14	<0.051	<0.085	< 0.070	<0.11	< 0.073	<0.051	< 0.073	<0.088	0.063 J	< 0.043	<0.082	< 0.064	< 0.063	0.062 J	
B25-5	5	11/30/2021	0.012 J	0.021 J	< 0.010	< 0.029	<0.010	< 0.017	< 0.014	<0.021	<0.015	<0.010	<0.015	<0.018	<0.0098	<0.0086	< 0.016	0.12	< 0.013	<0.0084	
B27-1	1	11/30/2021	<0.0021	< 0.0032	<0.0025	< 0.0072	<0.0026	0.0082 J	0.015	0.011	0.012	0.011	0.012	< 0.0044	0.017	<0.0022	0.012	0.0042 J	0.0095 J	0.018	
B27-1D	1	11/30/2021	<0.010	<0.016	< 0.013	<0.036	< 0.013	<0.021	<0.018	< 0.027	<0.018	< 0.013	<0.018	< 0.022	0.013 J	<0.011	<0.021	<0.016	< 0.016	0.014 J	Duplicate
B27-3	3	11/30/2021	<0.0020	< 0.0032	<0.0025	< 0.0071	0.0029 J	0.0060 J	0.0084 J	0.0059 J	0.0058 J	0.0075 J	0.0089 J	< 0.0044	0.015	<0.0021	0.0051 J	0.0045 J	0.011	0.016	
B27-5	5	11/30/2021	<0.0082	< 0.013	< 0.010	< 0.029	< 0.010	< 0.017	< 0.014	< 0.021	< 0.015	< 0.010	<0.015	<0.018	<0.0098	<0.0086	<0.016	< 0.013	0.015 J	0.011 J	
ESL - Residen	ntial Soil		9.9*	240	3,600		18,000	1.1	0.11	1.1		11	110	0.11	2,400	2,400	1.1	4		1,800	
ESL - Constru	ction Worker		==	670	10,000	==	50,000	110	10	110	==	910	9,100	11	6,700	6,700	110	400	==	5,000	

#### Notes

bgs = below ground surface

Bold = Analyte detected above the Method Detection Limit.

J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.

< = Analyte not detected at or above given Method Detection Limit for EPA Method 8270C

- = Not analyzed.

-- = No regulatory criterion

ESL = Environmental Screening Levels (SFBRWQCB, 2019)

\* - DTSC Human Health Risk Assessment Note 3

SIM = Selected Ion Monitoring



## Table 4 Polychlorinated Biphenyls (PCBs) in Soil 1396 Fifth Street Oakland, California

						_	nlorinated Bip A Method 80	-				
Sample ID	Depth (feet bgs)	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Comments
						milligrams	s per kilograr	m (mg/kg)				
B16-1	1	11/30/2021	0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B16-3	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B16-5	5	11/30/2021	<18	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B17-1	1	11/30/2021	0.026	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B17-3	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B17-5	5	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	<0.0061	< 0.025	< 0.016	< 0.013	
B18-1	1	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	<0.0061	< 0.025	< 0.016	< 0.013	
B18-3	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	<0.0061	< 0.025	< 0.016	< 0.013	
B18-5	5	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	<0.0061	< 0.025	< 0.016	< 0.013	
B22-1	1	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B22-3	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B22-3D	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	<0.0061	< 0.025	< 0.016	< 0.013	Duplicate
B22-5	5	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B25-1	1	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B25-3	3	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B25-5	5	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B27-1	1	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	
B27-1D	1	11/30/2021	< 0.018	< 0.014	< 0.016	< 0.014	< 0.0043	< 0.0061	< 0.025	< 0.016	< 0.013	Duplicate
B27-3	3	11/30/2021	<0.018	< 0.014	<0.016	< 0.014	< 0.0043	<0.0061	<0.025	<0.016	< 0.013	
B27-5	5	11/30/2021	<0.018	< 0.014	<0.016	< 0.014	< 0.0043	<0.0061	<0.025	<0.016	< 0.013	
ESL - Residen	tial Soil		0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	
ESL - Construc	ction Worker E	xposure	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	

#### Notes:

bgs = below ground surface

Bold = Analyte detected above the Method Detection Limit.

< = Analyte not detected at or above given Method Detection Limit

ESL = Environmental Screening Levels (SFBRWQCB, 2019).



#### Table 5

### Total Petroleum Hydrocarbons as Gasoline (TPHg) and Volatile Organic Compounds (VOCs) in Soil Vapor 1396 Fifth Street

Oakland, California

	0 11		Total Petroleum Hydrocarbon as Gasoline EPA Method TO-3					V	'olatile Organ EPA Meth	ic Compound nod TO-15	ds						Fixed Gases ASTM D1946		
Sample ID	Depth (feet bgs)	Date Sampled	Gasoline C6-C12	Benzene	Toluene	Ethyl- benzene	m,p- Xylenes	o-Xylene	Acetone	Bromiodi- chloro- methane	Chloroform	cis-1,2- Dichloro- ethene	Tetrachloro ethene (PCE)	Trichloro- ethene (TCE)	Vinyl Chloride	Helium	Oxygen/Ar con	Nitrogen	Comments
							micr	ograms per c	cubic meter (	µg/m3)						parts per m	nillion by volu	ıme (ppmv)	
B17-3.5V	3.5	12/2/2021	3,100	9.3	9.1	4.0	8.1	3.4	69	<2.4	21	2.2	14	<1.9	< 0.92	5,100	220,000	770,000	
B17-3.5VD	3.5	12/2/2021	1,800	9.2	9.4	2.2	6.9	3.1	87	4.4	22	2.0	13	<1.9	<0.92	4,300	220,000	770,000	Duplicate
B18-1.5V	1.5	12/2/2021	580	2.7	2.6	<1.6	<3.1	<1.6	28	5.5	110	<1.4	< 2.4	<1.9	< 0.92	6,100	220,000	770,000	
B20-5V	5	12/2/2021	5,700	17	10	4.5	16	6.1	72	<2.4	4.1	<1.4	< 2.4	<1.9	< 0.92	120,000	160,000	720,000	
B22-1.5V	1.5	12/2/2021	320	9.0	7.6	<1.7	5.0	2.5	140	6.0	51	2.7	28	<2.1	<1.0	51,000	210,000	740,000	
B24-5V	5	12/2/2021	35,000	2,800	740	41	110	53	9,400	<4.0	6.3	< 2.4	6.9	4.0	2.5	<3,000	120,000	880,000	
B25-3V	3	12/2/2021	860	3.2	3.7	<1.7	4.2	2.5	48	<2.7	14	11	93	4.1	<1.0	48,000	190,000	760,000	
B27-2.5V	2.5	12/2/2021	1,300	5.5	5.9	<1.7	4.4	2.0	33	<2.7	16	<1.6	5.6	<2.1	<1.0	<2,000	190,000	810,000	
B27-2.5VD	2.5	12/2/2021	1,500	5.9	7.1	1.6	5.4	2.5	44	<2.4	19	<1.4	8.8	<1.9	< 0.92	2,000	190,000	810,000	Duplicate
ESL - Resident	tial Soil Vapor	•	20,000	3.2	10,000	37	3,500	3,500	1,100,000	2.5	4.1	280	15	16	0.32				

#### Notes:

bgs = below ground surface

- -- = No regulatory criterion
- < = Analyte not detected at or above the indicated laboratory reporting limit (RL) for EPA Method TO-3, TO-15 and ASTM D1946

ESL = Environmental Screening Levels (SFBRWQCB, 2019)

Bold = Analyte detected above the RL

Exceeds Residential ESLs



#### Table 6 Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) in Groundwater 1396 Fifth Street Oakland, California

		Total Petro	oleum Hydrocar	bons (TPH)			Volatile	Organic Comp	ounds (VOCs) (	EPA 8260B)			
Sample ID	Date Sampled	TPHg EPA 8015C	TPHd C10-C28 EPA 8015C	TPHo C28-C44 EPA 8015C	Benzene	Toluene	Ethylbenzene	Total Xylenes	Acetone	2-Butanone	Naphthalene	Tetrachloro- ethene (PCE)	Comments
						mic	rograms per lite	r (μg/L)					
B33-GW	2/3/2022	<50	439	166 J	<0.62	0.75 J	<0.71	1.7 J	<20	<4.0	<2.0	<0.43	
B33-GW-D	2/3/2022	<50	607	224	< 0.31	0.53 J	<0.36	1.5 J	10.5 J	<2.0	1.1 J	<0.22	Duplicate
B36-GW	2/3/2022	<50	560	215	< 0.31	1.0	<0.36	1.6 J	46.8	<2.0	<1.0	<0.22	
B37-GW	2/2/2022	<100	176 J	106 J	< 0.62	<0.60	<0.71	<1.4	55.9	12.5	<2.0	< 0.43	
B38-GW	2/2/2022	<50	1,070	394	< 0.31	1.4	<0.36	1.8 J	15.9 J	<2.0	<1.0	<0.22	
B39-GW	2/2/2022	<50	1,290 B	427	0.47 J	0.43 J	<0.36	<0.72	117	9.4	<1.0	<0.22	
B40-GW	2/2/2022	51.7 J	1,590 B	495	< 0.31	1.7	0.36 J	2.0 J	72.5	5.1	<1.0	<0.22	
B40-GW-D	2/2/2022	<50	1,830 B	586	0.42 J	2.6	0.59 J	3.1	76.7	5.7	<1.0	<0.22	Duplicate
B41-GW	2/2/2022	<50	1,870 B	539	< 0.31	0.37 J	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
B45-GW	2/2/2022	<100	1,110 B	438	< 0.31	< 0.30	<0.36	<0.72	22.8 J	<2.0	<1.0	<0.22	
B46-GW	2/3/2022	<100	1,920	606	< 0.62	0.60 J	<0.71	<1.4	<20	<4.0	<2.0	<0.43	
B47-GW	2/2/2022	<50	437 B	289	< 0.31	0.43 J	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
Trip Blank	2/2/2022				<0.31	<0.30	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
Trip Blank	2/3/2022	-			< 0.31	< 0.30	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
MCL <sup>1</sup> Priority		760	200		1	40	30	20	14,000	5,600	17		

#### Notes:

- 1 "MCL Priority" lists all available MCL values. If no MCL values are available, the lower of the cancer and noncancer tapwater direct exposure levels is listed.
- <= Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 8015B or 8260B
- J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
- B = Contamination found in associated Method Blank
- ESL = Environmental Screening Levels (SFBRWQCB, 2019)
- TPHg = Total Petroleum Hydrocarbons as Gasoline
- TPHd = Total Petroleum Hydrocarbons as Diesel TPHo = Total Petroleum Hydrocarbons as Oil
- **Bold** = Analyte detected above the MDL

Exceeds the MCL Prilorty concentration



Citadel Project No. 0849.1004.0 Page 1 of 1



**Appendix A Alameda** County Department of Environmental Health Site Investigation Work Plan

October 6, 2021

Dilan Roe, PE Chief, Land Water Division ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH 1131 Harbor Bay Parkway Alameda, CA 94502

Re: CITADEL Project No. 0849.1003.0

Phase II Subsurface Investigation Work Plan Proposed Golden West Residential Development

1396 Fifth Street

Oakland, California 94607 Case Number: RO0003500

Dear Ms. Roe:

Citadel EHS (Citadel) is pleased to submit this Work Plan to perform a Phase II Subsurface Investigation at the above referenced location. The scope of Citadel's services is outlined on the following pages.

If you have any questions or require additional information, please telephone me at (818) 246-2707.

Sincerely, CITADEL EHS

Mark Drollinger, M. Eng., CSP, CHMM Principal, Engineering and Environmental Sciences

Enclosure



#### Michaels Development

2020 W. Kettleman Lane P.O. Box 1570 Lodi, California 95241

## Phase II Subsurface Investigation Work Plan

October 6, 2021

Citadel Project Number 0849.1003.0

Proposed Golden West Residential Development 1396 Fifth Street Oakland, California 94607

www.CitadelEHS.com





#### **Table of Contents**

1.0	INTR	ODUCTION	. 1
2.0	ВАС	KGROUND	. 1
3.0	GEO	LOGY/HYDROGEOLOGY	. 3
4.0	PRO	POSED WORK PLAN	. 3
	4.1	Health and Safety Plan	. 4
	4.2	Permitting and Demarcation of Underground Utilities	. 4
	4.3	Soil and Soil Vapor Sampling	. 4
	4.4	Investigation Derived Waste	. 5
	4.5	Laboratory Analysis	. 5
5.0	DATA	A EVALUATION, MANAGEMENT, AND REPORTING	. 6
6.0	REFE	RENCES CITED	. 6
7.0	SIGN	IATURES	. 6

#### **FIGURES**

Figure 1 Site Location Map

Figure 2 Proposed Boring Locations

#### **APPENDICES**

Appendix A Map of the 2012 UST Removal and Soil Sample Locations

Appendix B Health and Safety Plan





#### 1.0 INTRODUCTION

Citadel EHS (Citadel) has prepared this Work Plan on behalf of Michaels Development (Client) to complete a Phase II Subsurface Investigation of the proposed Golden West Residential Development located at 1396 Fifth Street, Oakland, California, (Site). The Site is overseen by the Alameda County Department of Environmental Health (ACDEH) and has been assigned Case ID RO0003500 and GeoTracker Global ID T10000017095.

The Site is identified in the County of Alameda with Assessor's Parcel Number 004-69-004. The Site totals approximately 0.88 acres and is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track is situated along the northern boundary of the Site. The Site is currently a dirt covered vacant lot. A Site Location Map is included as Figure 1.

#### 2.0 BACKGROUND

The Site has historically been occupied by various food grade industries including yeast and vinegar production and a brewery from at least 1880 through 2003. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011 with supplemental removals of sewer connections and structural pilings. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with several documented releases, and an unauthorized release of mercury to the sewer system with apparent impacts to the subsurface soil, and the Site also had a surficial layer of artificial fill that extended across much of the property. Previous testing indicated the fill had elevated levels of lead in some areas, and detectable but generally low concentrations of mercury. Approximately 8,575 cubic yards of soil was removed as non-hazardous soil and approximately 31 cubic yards of soil was removed as non-RCRA hazardous waste. Following excavation, confirmation soil samples were collected resulting in one soil sample along the eastern side of the Site with a concentration of 93 mg/kg lead which was slightly greater than the quideline concentrations of 80 mg/kg lead.

During preliminary development of the Site, four underground storage tanks (USTs) were discovered in the sidewalk along Fifth Street. In October 2011, each UST was opened and sampled for profiling. In November 2011 soils were excavated from above and along the sides of the UST's in order to expose their tops and walls in preparation for removal. During removal of the overburden at UST No. 4, live utility lines were observed crossing the top of the UST. The Oakland Fire Department (OFD) Inspector allowed UST No. 4 to be closed in-place by filling the UST with concrete slurry. A map of the UST locations and details is included in Appendix A

A fire occurred at the Site in 2012 significantly damaging the Site structure and surrounding properties. The remaining structure from the fire consisted of a concrete podium which was removed in April 2016.

In June 2016, Citadel advanced 15 soil borings at the Site. Citadel collected continuous cores at all locations for geologic characterization of the fill and native material at the Site. The contact between fill and native soil was logged at each boring location. Three soil borings were advanced adjacent to formers USTs 1, 3 and 4 to evaluate soil and groundwater in these areas. In addition, groundwater samples were collected from two borings to evaluate groundwater upgradient of the former USTs.



PHASE II SUBSURFACE INVESTIGATION WORK PLAN
MICHAELS DEVELOPMENT
1396 FIFTH STREET
OAKLAND, CALIFORNIA
OCTOBER 6. 2021

Citadel collected five groundwater grab samples in the vicinity of the three former USTs and upgradient of the USTs. Soil samples were collected in acetate sleeves and delivered to a state-certified laboratory for analysis.

Soil samples collected from fill material did not exceed the Tier 1 ESL for TPHg, TPHd, TPHo, VOCs, PCBs or metals with the exception of arsenic. The concentrations of arsenic from fill was found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations did not exceed the background levels for arsenic.

A majority of soil samples were reported to have detectable concentrations of various PAHs. Tier 1 ESLs for PAHs are driven by human health from direct exposure to contaminated soils. Future development is not anticipated to include direct exposure to subsurface soils and ESLs for exposure to construction workers, leaching to groundwater, gross contamination and odor nuisance are all above maximum concentrations of PAHs observed at the site.

Groundwater was encountered at approximately 11 feet bgs in the borings extended to groundwater. Groundwater samples were analyzed for VOCs and TPH. Maximum concentrations in groundwater were observed in the upgradient sample locations. Groundwater collected from the two upgradient sampling locations near the railroad right-of-way (ROW) exceed the Tier 1 ESLs for TPHg, TPHd, BTEX and TBA. Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water. Future development is not anticipated to include direct exposure to groundwater.

The source of petroleum hydrocarbon contamination at the Site is likely to be the railroad ROW that is immediately adjacent to the northern perimeter of the Site, or the former service station located approximately 175 feet north of the Site on the southeast corner of Mandel Parkway and 7th Street. Oil seepage from the railroad ROW on the north side of the Site has been previously noted (Citadel, 2011, 2015).

#### **ACDEH Update**

In May 2017, the ACDEH closed Cleanup Program Case No. RO0002896 based on evaluation of risk under the land use scenario as a vacant fenced lot at the time of case closure. The case was closed with the condition that any proposed change in land use be reviewed by ACDEH for reevaluation of human health risk from subsurface contamination at and in the vicinity of the Site to construction workers and the community during redevelopment activities and the Site users once the redevelopment is complete.

in accordance with the 2017 **ACDEH's change in land use** condition of case closure, a Service Request Application for a Preliminary Site Review, dated May 18, 2021, was submitted by Oakland Housing Investors L.P (the Clients legal entity for the development).

Based on ACDEH review of the case files, ACDEH indicated concurrence that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site protective practices such as removal, a vapor barrier and hardscaping of the Site open areas.

Therefore, ACDEH requested that the Client enter into a Voluntary Remedial Action Agreement with ACDEH to provide oversight of Site investigation activities to fill remaining data gaps to characterize soil and soil vapor at the Site. Information obtained from this investigation would be used to evaluate the current subsurface conditions, develop a Conceptual Site Model and





provide recommendations for any contaminant mitigation measures that are protective of human and environmental health.

Citadel has prepared this Work Plan to address the apparent data gaps from previous investigations and evaluate the current subsurface conditions across the Site.

#### 3.0 GEOLOGY/HYDROGEOLOGY

The City of Oakland has identified three Oakland-specific soil types that can be used for determining site specific target levels. These soil categories are Merritt Sands, sandy silts and clayey silts. Merritt sands are primarily located in flatlands to the west of Lake Merritt and consist of fine-grained silty sand with lenses of sandy clay and clay. Merritt sands typically feature low moisture content and high permeability. Sandy silts are generally found throughout the East Bay and consist of unconsolidated, moderately sorted sand, silt, and clay. These are considered moderate permeability deposits. Clayey silts are found primarily along the bay and estuary and typically contain organic material, peat, and thin lenses of sand. Clayey silts are typically low permeability deposits.

Based on drilling logs developed by Citadel as part of the previous subsurface investigations, shallow sediments across the Site consist of a mixture native and imported soils consisting of silty clay, clayey silt, sandy silt, and silty sand. The fill layer extends from the surface to an average depth of about four to five feet below ground surface (bgs) across most of the Site and is underlain mostly by silty sand deposits that are assumed to represent the Merritt sand unit.

Groundwater was present at approximately four feet bgs in March 2011 and 11 feet bgs in June 2016. Groundwater in the local area reportedly flows to the southwest and is part of the East Bay Sub Basin of the Santa Clara Valley Basin (Number 2-9.04). Existing beneficial uses include municipal, agricultural, and industrial process supply; however, it is probable that the groundwater is not suitable for these uses due to high total dissolved solid (TDS) content (reportedly as high as 2,400 milligram per liter (mg/L)). The TDS levels may be naturally occurring due to the proximity of the Site to the bay.

#### 4.0 PROPOSED WORK PLAN

Citadel understands that the Client proposes to improve the 0.88-acre Site with an eight-story, transit oriented residential development with 222 dwelling units. The Property is proposed to be built property line to property line except for the northern façade where BART mandates a 20-foot setback between the face of the building and the elevated BART tracks. The 20-foot setback will be capped with a hardscape and artificial grass. The development will include ground floor amenity spaces along the length of 5th Street and will provide a linear single loaded garage along the north side of the ground floor abutting the BART tracks. There will be no subterranean levels. The Site is currently vacant, and the neighboring properties are also planned for higher density transit-oriented developments.

Soil vapor samples have not been previously collected at the Site and the ACDEH requested additional assessment for soil vapor at the Site. Utilizing the shallow groundwater results to evaluate potential vapor intrusion concerns, benzene and ethylbenzene were reported above the vapor risk threshold. No other VOC concentrations exceeded the groundwater ESLs for vapor intrusion. The ACDEH also requested additional investigation of native soils exposed along the west, south and east perimeter of the Site that have not been previously sampled.



PHASE II SUBSURFACE INVESTIGATION WORK PLAN
MICHAELS DEVELOPMENT
1396 FIFTH STREET
OAKLAND, CALIFORNIA
OCTOBER 6, 2021

Based on Citadels findings and conclusions, from the 2016 investigation, the current ESLs, the proposed development and a request from the ACDEH, Citadel is preparing this Site Assessment Work Plan for submittal and approval by the ACDEH to address soil and soil vapor data gaps at the Site.

#### 4.1 Health and Safety Plan

Citadel prepared a site-specific health and safety plan (HASP) identifying existing and potential hazards for workers at the Site during drilling and sample collection activities. A copy of the HASP is included in Appendix B.

#### 4.2 Permitting and Demarcation of Underground Utilities

Citadel will obtain a boring permit from the Alameda County Public Works Agency (ACPWA), Water Resources Section prior to on-site drilling activities. A permit is required for all work pertaining to boreholes at any depth.

Citadel will contact Underground Service Alert (USA) to mark underground utilities prior to advancing soil borings at the Site.

#### 4.3 Soil and Soil Vapor Sampling

Based on previous investigations at the Site, groundwater is anticipated to be approximately 11 feet bgs, with groundwater flow to the south. Due to the shallow nature of the sample locations, groundwater is not expected to be encountered during this investigation.

To evaluate the soil and soil vapor, Citadel will advance 12 borings at the Site at approximate 75-foot centers. Boring locations were chosen to obtain representative soil vapor samples from the Site and obtain soil samples from areas of native soils along the west, south and east perimeter of the Site that were not previously sampled. Refer to Figure 2 for a Site Map showing approximate sampling locations.

#### Soil Sampling

The borings will be advanced to a depth of approximately five feet bgs using a direct push drill rig. Citadel will collect continuous cores in all locations for geologic characterization. Soil samples will be collected in acetate sleeves at one, three and five feet 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 device to monitor the vapor space for the presence of VOCs.

#### Soil Vapor Sampling

After collection of soil samples, soil vapor sampling probes will be installed in each of the 12 borings, at approximately five feet bgs and a permanent traffic rated well box will be installed at each boring location. 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 1 and Guidance for the Evaluation and Mitigation of

<sup>&</sup>lt;sup>1</sup> 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.





Subsurface Vapor Intrusion to Indoor Air<sup>2</sup>. 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 individually certified, one-liter Summa Canisters following the procedure of the Cal EPA's Active Soil Gas Investigation Authority approximately two hours after the probes have been installed. A helium shroud will be placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Active Soil Gas Investigations Advisory. Two duplicate soil vapor samples will be collected for QA/QC.

#### Quality Control/Quality Assurance Samples

Quality Assurance/Quality Control (QA/QC) samples for the project will consist of matrix spike/matrix spike duplicate (MS/MSD) samples (prepared by the laboratory), equipment rinsate of decontaminated multi-use sampling equipment, and sample containers, if used.

QA/QS samples will be prepared using the same procedures as regular soil samples with regard to sample volume, containers, and preservation. The chain-of-custody procedures for the QA/QC samples will also match those of the field soil samples.

Two split duplicate soil samples and two soil vapor sample will be collected and submitted for analysis.

#### 4.4 Investigation Derived Waste

Citadel will collect investigation derived waste (IDW) consisting of boring soils, personal protective equipment, sampling tools, purged groundwater, and other waste streams into a small DOT-rated drum for off-site disposal. Citadel will arrange for transportation and disposal of the IDW at the earliest possible time following the receipt of soil sample results.

#### 4.5 Laboratory Analysis

#### Soil Samples

The soil samples will be placed in a chilled cooler for transportation to an accredited laboratory for analysis under proper chain of custody (COC) procedures. A total of 36 soil samples will be submitted to the laboratory. Approximately 18 soil samples and two split soil samples from the borings located in the areas of native soil will be selected for analysis, the remaining soil samples will be held by the laboratory and not analyzed. The 18 selected soil samples will be analyzed for TPH by EPA Method 8015M, VOCs and oxygenates by EPA Method 8260B, PAHs by EPA Method 8270C SIM, PCBs by EPA Method 8082 and Title 22 heavy metals by EPA Methods 6010B/7471A.

#### Soil Vapor Samples

Twelve soil vapor samples plus two duplicate samples will be analyzed for VOCs by EPA Method TO-15 SIM, TPHg by EPA Method TO-3 and fixed gases, including helium, by ASTM D1946.

<sup>&</sup>lt;sup>2</sup> Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substance Control, California Environmental Protection Agency, October 2011.





Report Prepared by:

Reviewed by

#### 5.0 DATA EVALUATION, MANAGEMENT, AND REPORTING

Upon completion of all on-site activities, a final report will be submitted documenting Citadel's methodologies, procedures, and laboratory analytical results. Boring logs with PID readings for all locations will be included in the report. The report will provide a discussion of findings, conclusions and recommendations regarding the current environmental condition of the Site.

#### 6.0 REFERENCES CITED

Citadel Environmental Services, Inc. (Citadel), 2011a. Subsurface Investigation Report, Former Red Star Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. March 18.

Citadel, 2011b. Revised Remedial Action Plan, Former Red Start Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. July 7.

Citadel, 2015. Soil Excavation Report, Former Red Start Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. Revised September 22, 2015.

Citadel, 2016. Phase II Subsurface Investigation Report and Closure Request. July 28.

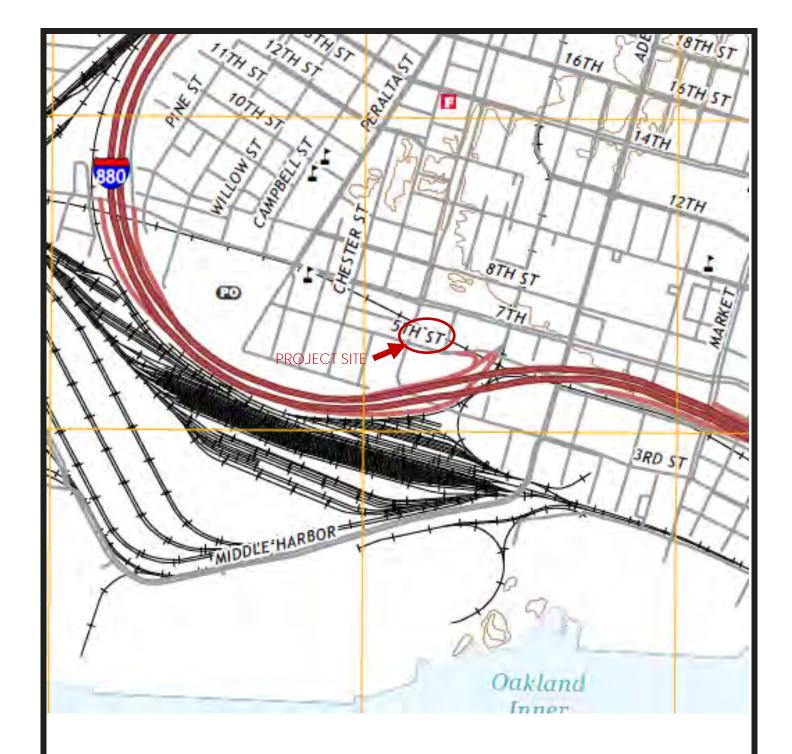
#### **7.0 SIGNATURES**

T. Michael Pendergrass, PC Senior Project Geologist, E	nvironmental Scien	ces

Mark Drollinger, M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences



**Figures** 





Source: USGS, Oakland West, CA Quadrangle, 2018, 7.5 Minute Series

Not to Scale

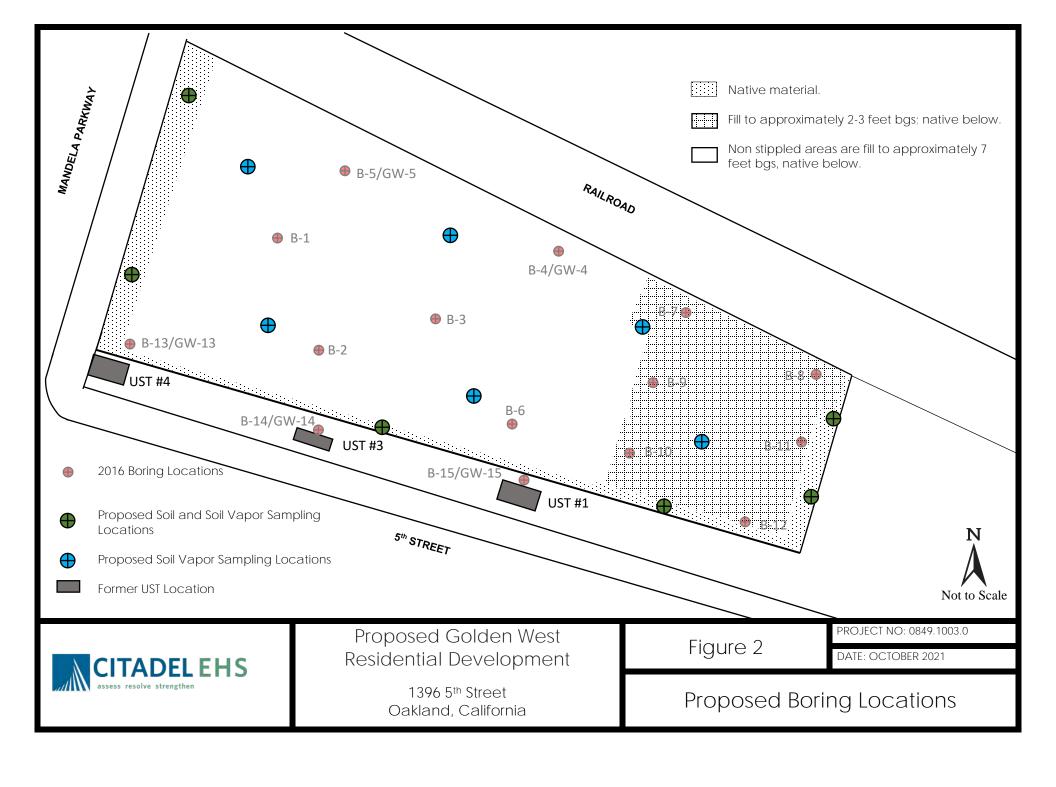


Proposed Golden West Residential Development 1396 Fifth Street Oakland, California 94607 Figure 1

PROJECT NO.: 0849.1003.0

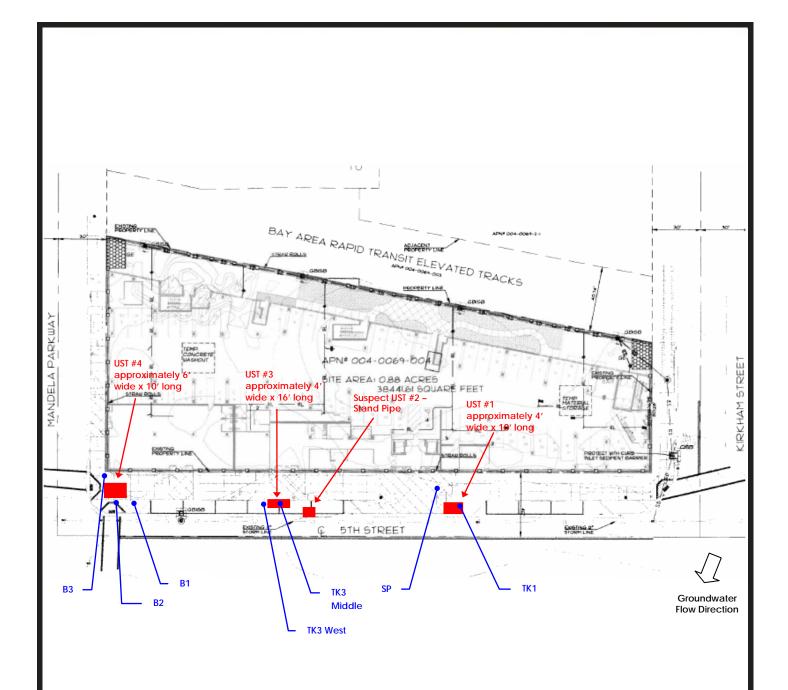
DATE: OCTOBER 2021

Site Location Map





Appendix A
Map of the 2012 UST Removal
and Soil Sample Locations





Source: Robertson & Dominick, Inc., Erosion/Sediment Control Plan



OAKLAND HOUSING INVESTORS, LP

1396 Fifth Street Oakland, California 94607 Figure 2

PROJECT NO.: 0222.1003.0

DATE: August 2012

**Sample Locations** 



**Appendix B**ACDEH Work Plan Approval

From: <u>Mark Drollinger</u>
To: <u>Mike Pendergrass</u>

Subject:FW: 1396 e. 5th st./Michaels Deve.Date:Tuesday, November 30, 2021 11:16:35 AM

Attachments: 0849.1003.0 Phase II Investigation Work Plan.pdf

#### thanks

From: Roe, Dilan, Env. Health < Dilan. Roe@acgov.org>

Sent: Thursday, November 11, 2021 6:30 PM

**To:** Mark Drollinger < mdrollinger@citadelehs.com>

**Cc:** Nalinna Rasu <nrasu@citadelehs.com>; Scott Cooper <scooper@tmo.com>; Jessica Kane

<jkane@tmo.com>

Subject: RE: 1396 e. 5th st./Michaels Deve.

#### Good Evening Scott:

Alameda County Department of Environmental Health (ACDEH) has reviewed the case file for the subject property in conjunction with the *Phase II Subsurface Investigation Work Plan*, dated October 6, 2021 prepared on your behalf by Citadel EHS (Work Plan).

The Work Plan presents a scope of work to collect soil and soil vapor samples at the site to fill remaining data gaps with respect to potential shallow soil and soil vapor impacts from residual chemicals of concern associated with historical land use at and in the vicinity of the site including:

- Advancement of six borings in native soil along the west, south and east perimeter of the site to collect soil samples in native soil in areas that were not sampled during previous investigations.
- Installation of six permanent vapor probes and collection of soil vapor samples for analysis of volatile organic compounds, total petroleum hydrocarbons as gasoline, fixed gases, and the leak compound helium.

ACDEH concurs that the proposed scope of work will collect fill the remaining data gaps to facilitate site redevelopment and requests that you implement the work and submit a report documenting the investigation activities and results by January 28, 2021.

Dilan Roe, PE Chief – Land & Water Division 510-567-6767

**From:** Mark Drollinger < mdrollinger@citadelehs.com >

**Sent:** Thursday, November 11, 2021 11:25 AM **To:** Roe, Dilan, Env. Health < Dilan.Roe@acgov.org >

**Subject:** 1396 e. 5th st./Michaels Deve.

Dilan,

Good morning. Im just checking in to see if you will be able to approve and/or comment on our Work Plan to complete the subsurface investigation at the is property. Please let me know if this will be finalized this week or next. Thank you Dilan.

Mark

#### Mark Drollinger, M. Eng., CSP, CHMM

Principal, Engineering and Environmental Sciences



Los Angeles – Corporate Office 1725 Victory Blvd. Glendale, CA 91201

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Appendix C Soil Boring Permit

#### Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/30/2021 By tonyx Permit Numbers: W2021-0874 to W2021-0875

Permits Valid from 11/30/2021 to 12/03/2021

Application Id: 1637016602512 City of Project Site:Oakland

Site Location: 1396 Fifth St, Oakland, CA 94607, USA-County Health Order 20-10 Appendix B Protocol Being

Used-ACDEH Case# RO0003500 and DTSC Case#01510022

Project Start Date: 11/30/2021 Completion Date:12/03/2021

Assigned Inspector: Contact Tony Xiong at (510) 213-9906 or tonyx@grzones.com

Applicant: Citadel EHS - Mike Pendergrass Phone: 818-296-9405

2 Peters Canyon Road, Suite 200, Costa Mesa, CA 92626 **Property Owner:**Michael's Development

Property Owner: Michael's Development Phone: 818-296-9405 2020 West Kettleman Lane, PO Box 1570, Lodi, CA 95241

Client: \*\* same as Property Owner \*\*

**Contact:** Mike Pendergräss **Phone:** 818-296-9405 **Cell:** 818-482-1176

**Total Due:** \$530.00

Receipt Number: WR2021-0556 Total Amount Paid: \$530.00
Payer Name: Mike Pendergrass Paid By: VISA PAID IN FULL

#### **Works Requesting Permits:**

Well Construction-Vapor monitoring well-Vapor monitoring well - 12 Wells

Driller: Trinity Drilling - Lic #: 1010926 - Method: DP Work Total: \$265.00

#### **Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2021- 0874	11/30/2021	02/28/2022	B-16	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-17	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-18	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-19	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-20	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-21	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-22	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-23	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-24	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-25	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-26	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021- 0874	11/30/2021	02/28/2022	B-27	2.00 in.	2.00 in.	2.00 ft	5.00 ft

#### **Specific Work Permit Conditions**

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend

#### Alameda County Public Works Agency - Water Resources Well Permit

and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

- 2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- 3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned.
- 4. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.
- 5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
- 6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
- 8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 9. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
- 10. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

11. All borehole destruction work requires inspection by ACPWA; Except for special circumstances, all work that requires inspection must be performed during the work hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, except holidays

#### Alameda County Public Works Agency - Water Resources Well Permit

Driller: Trinity Drilling - Lic #: 1010926 - Method: DP Work Total: \$265.00

#### **Specifications**

Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
Number			Boreholes		
W2021-	11/30/2021	02/28/2022	6	2.00 in.	5.00 ft
0875					

#### **Specific Work Permit Conditions**

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned.
- 5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 7. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
- 8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
- 9. All borehole destruction work requires inspection by ACPWA; Except for special circumstances, all work that requires inspection must be performed during the work hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, except holidays



**Appendix D Health** and Safety Plan



Michaels Development 2020 W. Kettleman Lane P.O. Box 1570 Lodi, California 95241

#### **Health and Safety Plan**

September 30, 2021

Citadel Project Number 0849.1003.0

Proposed Golden West Residential Development 1396 Fifth Street Oakland, California 94607

www.CitadelEHS.com





#### **Table of Contents**

1.0 SITE DESCRIPTION	1
2.0 BACKGROUND	1
3.0 SAFETY POLICY	3
4.0 WORK DESCRIPTION	3
5.0 KEY PROJECT PERSONNEL AND RESPONSIBILITIES	5
PROJECT MANAGER	5
SITE SAFETY OFFICER/PROJECT MONITOR	5
SUBCONTRACTOR PERSONNEL	5
6.0 SITE CONTROL MEASURES	5
7.0 STANDARD OPERATING PROCEDURES	5
GENERAL SAFETY	5
HAZARD EVALUATION	
COMMUNICATION PROCEDURES	6
FIELD VEHICLES	6
MANUAL LIFTING	6
HEAT EXPOSURE	7
COVID-19 FIELD WORK PREVENTION GUIDELINES	8
8.0 PERSONAL PROTECTIVE EQUIPMENT	8
9.0 DECONTAMINATION PROCEDURES	
10.0 EMERGENCY PROCEDURES	10
SIGNATURE PAGE	14



HEALTH AND SAFETY PLAN MICHAELS DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA SEPTEMBER 30, 2021

### **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 at the Proposed Golden West Residential Development located at 1396 Fifth Street, in the City of Oakland, California (Site). 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

The Site is identified in the County of Alameda as Assessor's Parcel Number 004-69-004. The Site totals approximately 0.88 acres and is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track is situated along the northern boundary of the Site. The Site is currently comprised of vacant land.

Historically, the Site has been developed and occupied by yeast manufacturing, vinegar production, and various brewery operations from at least 1880. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with several documented releases, and an unauthorized release of mercury to the sewer system with apparent impacts to the subsurface soil. A major fire occurred at the Site in 2012 significantly damaging the structure and surrounding properties. The remaining structure consisting of a concrete podium to be used for parking and building support was removed in April 2016.

Groundwater samples were collected from five temporary monitoring wells (MW1-MW-5) installed across the Site during a subsurface investigation by Citadel in 2010; none of the samples had detectable areas of VOCs SVOCs, gasoline range TPH or diesel range TPH, the sample from MW-5 had oil-range hydrocarbons at a concentration of 2,400 micrograms per liter ( $\mu$ g/L), which exceeded the San Francisco Regional Water Quality Control Board's (SFRWQCB) Environmental Screening Level of 210  $\mu$ g/L.

In mid-August 2011, Advent Companies, the general contractor for the project, initiated the excavation program at the Site. Confirmation soil samples collected during the excavation indicated that lead was present at a concentration of 93 milligrams per kilogram (mg/kg) in sample S31-3 collected at three feet below grade from the east side of the Site, which exceeded the Office of Environmental Health Hazard assessment's (OEHHA) Soil Screening Level (SSL) of 80 mg/kg for residential scenarios. The source and types of quality control used for backfilling the excavation appear to be unknown. Additional soil sampling is necessary to verify that the imported fill material is suitable for the Site.

On November 29, 2011, soil was excavated by Sequoia Construction and Development, Inc., (Sequoia) from above and along the sides of the USTs (see Figure 3 for UST locations) to expose their tops and walls in preparation for removal. The volumes for the USTs were determined visually and were reportedly 250 gallons (UST No 1), 2,500 gallons (UST No. 3) and 10,000 gallons (UST No. 4). Suspected UST No. 2 was found to be a disconnected standpipe. No associated structure for this standpipe was located. UST Nos. 1 and 3 were removed and transported off-site for recycling. The condition of both USTs was fair with no observable holes, significant corrosion or scaling evident. UST No. 4 was filled with a concrete slurry and sealed prior to being closed in-place. Analysis of soil samples after abandonment/removal of the USTs indicated TPH at concentrations





of 9, 37, and 31 mg/kg, in soil samples collected in the vicinity of UST No.1, UST No.2, and UST No.3, respectively.

In June 2016, Citadel advanced fifteen soil borings at the Site. Citadel collected continuous cores at all locations for geologic characterization of the fill and native material at the Site and to evaluate soil and groundwater in select areas.

Native soil was identifiable as a silt, very fine sand and clay. In the western portion of the Site native soils were predominantly reddish-brown silt. In the northern portion of the Site a plastic clay was found to underlie the imported fill material. In the north-central portion of the Site the reddish-brown silt underlay the clay. Along the southern boundary of the Site the silt underlying the import fill was more clay rich. Native soil in the eastern end of the Site varied from poorly or well-graded sand to the reddish-brown silt/very fine sand.

Imported fill at the Site was mostly identifiable as a gravel with silt and sand, and well-graded sand with gravel, usually grayish in color. Fill material encountered in in the northeast corner of the Site did not match the fill that was observed on the remainder of the Site. It was concluded that this corner of the Site was not excavated in 2011 and the fill encountered is from an earlier undocumented excavation.

Soil samples collected from the fill material were analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082, polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM, and lead using EPA Method 6020. Soil samples collected from native material were analyzed for TPHd and TPHo by EPA Method 8015B, TPHg by EPA Method 8260B and for Title 22 CAM metals by EPA Methods 6020 and 7471A. The six soil samples collected near the former USTs were analyzed for TPHd and TPHo by EPA Method 8015B, TPHg by EPA Method 8260B, and full scan VOCs using EPA Method 8260B.

PCBs were not detected from any of the soil samples collected from the fill material or the native soil. No soil samples collected from fill material were found to exceed the Tier 1 ESL for TPHg, TPHd, TPHo, VOCs, PCBs or metals with the exception of arsenic. The concentrations of arsenic from fill were found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations did not exceed the background levels for arsenic in the San Francisco Bay region according to a Master's Thesis posted on the SWRCB's website with all results below the 11 mg/kg upper estimate (99th percentile) and only one result is above the 4.61 mg/kg mean from this study.

Most soil samples analyzed for PAHs were found to have detectable concentrations of anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[k]fluoranthene, chrysene, fluoranthene, indeno[1,2,3-cd] pyrene, phenanthrene and pyrene. Several samples were found to have detectable levels of acenaphthene, dibenz(a,h)anthracene, fluorine and naphthalene. Tier 1 ESLs were used to evaluate the results from the soil sampling. The Tier 1 ESL for benzo[a]pyrene (0.016 mg/kg) was exceeded in several soil samples with a maximum concentration of 0.150 mg/kg. The Tier 1 ESL for benzo[a]anthracene (0.037 mg/kg), benzo[b]fluoranthene (0.16 mg/kg) and dibenz(a,h)anthracene (0.016 mg/kg) were also exceed with maximum concentrations of 0.170 mg/kg, 0.200 mg/kg and 0.017 J mg/kg, respectively.

Citadel collected five groundwater grab samples in the vicinity of the three former USTs and upgradient of the USTs. Soil samples were collected in acetate sleeves, the sleeves were labeled, sealed, and all samples delivered to a state-certified laboratory for analysis. Groundwater samples were analyzed for VOCs and TPHg by EPA Method 8260B and for TPHd and TPHo by EPA Method 8015B. Maximum concentrations in groundwater were observed in the upgradient sample





locations. Contaminant concentrations in groundwater samples were compared with California Maximum Contaminant Levels (MCL) and SFRWQCB (2016) Tier 1 ESLs. Groundwater collected from the two upgradient sampling locations near the railroad right-of-way (ROW) exceed the Tier 1 ESLs for TPHg, TPHd, BTEX and TBA. Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water. Future development is not anticipated to include direct exposure to groundwater.

Based on Citadels findings and conclusions, from the 2016 investigation, the current ESLs, the proposed development and a request from the ACDEH, Citadel is preparing this Site Assessment Work Plan for submittal and approval by the ACDEH to address soil and soil vapor data gaps at the Site.

# 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, subcontractors and public safety.

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. Their HASP must be as stringent as that for Citadel.

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

Based on previous investigations at the Site, groundwater is anticipated to be approximately 11 feet below ground surface (bgs), with groundwater flow to the south. Due to the shallow nature of the sample locations, groundwater is not expected to be encountered during this investigation.

To evaluate the soil and soil vapor, Citadel will advance 12 borings at the Site at approximate 75-foot centers. Boring locations will be chosen to obtain representative soil vapor samples from the Site and obtain soil samples from areas of native soils along the west, south and east perimeter of the Site that were not previously sampled.

Prior to commencing with Phase II activities, Citadel will mark proposed boring locations and contact Underground Service Alert (USA) for marking off utilities.

#### Soil Sampling

The borings will be advanced to a depth of approximately five feet bgs using a direct push drill rig. Citadel will collect continuous cores in all locations for geologic characterization. Soil samples

SEPTEMBER 30, 2021



will be collected in acetate sleeves at one, three and five feet 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 device to monitor the vapor space for the presence of VOCs.

After collection of soil samples, Citadel will install soil vapor sampling probes in each boring at approximately five feet bgs.

# Soil Vapor Sampling

After collection of soil samples, soil vapor sampling probes will be installed in each of the 12 borings, at approximately five feet bgs and a permanent traffic rated well box will be installed at each boring location. 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 <sup>1</sup> and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air <sup>2</sup>. 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 individually certified, one-liter Summa Canisters following the procedure of the Cal EPA's Active Soil Gas Investigation Authority approximately two hours after the probes have been installed. A helium shroud will be placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Active Soil Gas Investigations Advisory. Two duplicate soil vapor samples will be collected for QA/QC.

#### Soil Sample Laboratory Analysis

The soil samples will be placed in a chilled cooler for transportation to an accredited laboratory for analysis under proper chain of custody (COC) procedures. A total of 36 soil samples will be submitted to the laboratory. Approximately 18 soil samples from the borings located in the areas of native soil will be selected for analysis, the remaining soil samples will be held by the laboratory and not analyzed. The 18 selected soil samples will be analyzed for TPH by EPA Method 8015M, VOCs and oxygenantes by EPA Method 8260B, polyaromatic hydrocarbons (PAHs) by EPA Method 8270C SIM, polychlorinated biphenyls by EPA Method 8082 and Title 22 heavy metals by EPA Methods 6010B/7471A.

#### Soil Vapor Sample Laboratory Analysis

Twelve soil vapor samples plus two duplicate samples will be analyzed for VOCs by EPA Method TO-15 SIM, total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 and fixed gases, including helium, by ASTM D1946.

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substance Control, California Environmental Protection Agency, October 2011.



# 5.0 KEY PROJECT PERSONNEL AND RESPONSIBILITIES

Project Manager Site Safety Officer (SSO)/Project Monitor Subcontractor Personnel Site Representatives Mike Pendergrass (Citadel)
Tim Lambert (Citadel)
Trinity Drilling
Scott Cooper, Michaels Development
Alameda County Environmental Health
City of Oakland

#### 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** 

SEPTEMBER 30, 2021



- 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.

#### HAZARD EVALUATION

The following substances are known or suspected to be on site. The primary hazards of each are identified as follow:

<u>Substances</u>	<u>Concentration</u>	<u>Primary Hazards</u>
Total Petroleum Hydrocarbons	Various	Ingestion, inhalation, skin
Volatile Organic Compounds	Various	Ingestion, inhalation, skin
Title 22 Metals	Various	Ingestion, inhalation, skin

#### **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, can't breathe
Grip partner's wrist or both hands around waist	
Hands on top of head	9
Thumbs up	
Thumbs down	

#### 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.

SEPTEMBER 30, 2021



 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

<u>Utilities (Under Ground and Above Ground):</u> 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.

<u>Site Instability:</u> 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.

<u>Equipment Refueling:</u> 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.

<u>Personnel Injury</u>: 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).

<u>Fire/Explosion</u>: 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 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:

<u>Location</u> <u>Job Function</u> <u>Level of Protection</u>

Controlled Area All Workers A B C D Other

Specific protective equipment for each level of protection is as follows:

Level A Level C

Fully-encapsulating suit Splash gear

SCBA Half-face canister respirator with H<sub>2</sub>S/VOC

cartridge

Disposable coveralls Mouth/nose canister respirator

Efficiency 100 (HEPA)

Level B
Splash gear
SCBA
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.

# 9.0 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.



HEALTH AND SAFETY PLAN MICHAELS DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA SEPTEMBER 30, 2021

Each site worker is responsible for the maintenance, decontamination, and sanitizing of his/her own PPF

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.

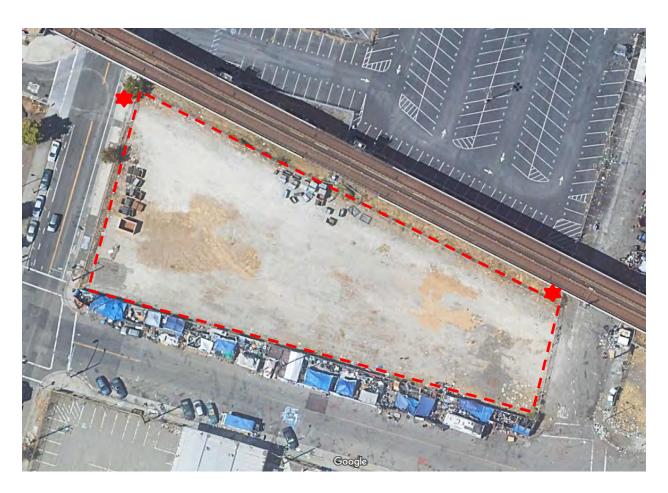
#### **10.0 EMERGENCY PROCEDURES**

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

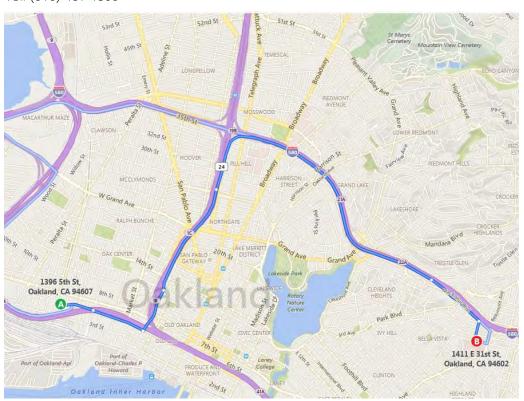
= Refuge Areas

Phone



The designated medical facility is:

Highland Hospital 1411 E 31st St Oakland, CA 94602 Tel: (510) 437 4800



#### Directions:

Depart 5th St toward Kirkham St (east)	0.3 mi
Take ramp on right for I-880 South toward Alameda/Broadway	0.4 mi
Turn left onto Castro St	0.4 mi
Take ramp left for I-980 East toward San Francisco/Walnut Creek	1.0 mi
Take ramp right for I-580 East toward Hayward	2.6 mi
At exit 22, take ramp right for MacArthur Blvd towards Park Blvd	0.5 mi
Turn right on Stuart St	0.2 mi
Turn left onto 31st St	95 ft
Arrive at 1411 E 31st St	

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

> Police/Fire 911 Hospital (510) 437 4800



HEALTH AND SAFETY PLAN MICHAELS DEVELOPMENT 1396 FIFTH STREET OAKLAND, CALIFORNIA SEPTEMBER 30, 2021

This HASP has been prepared by:

Digitally signed by Tim

Tim Lambert Date: 2021.09.29 10:40:03

Tim Lambert

Environmental Technician, Engineering and Environmental Sciences

This HASP has been reviewed by:

T. Michael

Digitally signed by T. Michael

Pendergrass

**Pendergrass** 

Date: 2021.09.29 10:40:24

-07'00'

T. Michael Pendergrass, PG

Senior Project Geologist, Engineering and Environmental Sciences



HEALTH AND SAFETY PLAN MICHAELS DEVELOPMENT 1396 FIFTM STREET OAKLAND, CALIFORNIA SEPTEMBER 30, 2021

# **SIGNATURE PAGE**

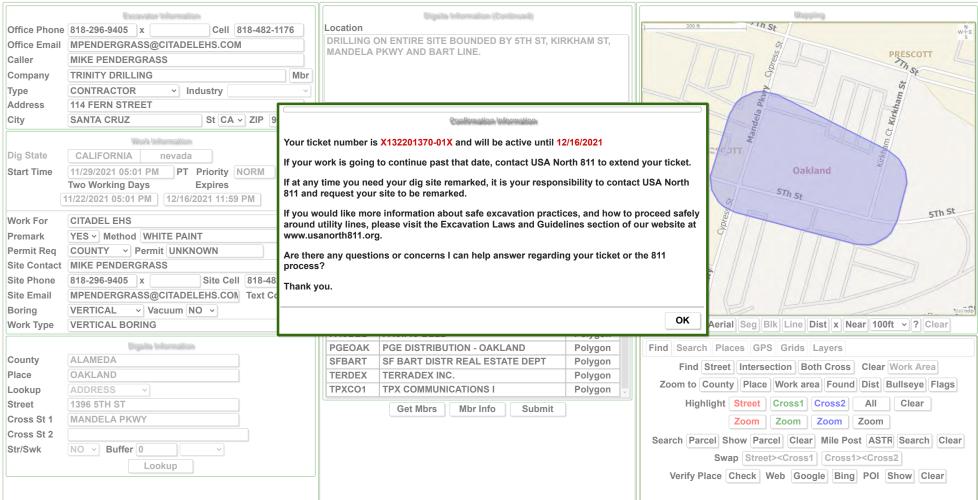
The following signatures indicate that this Health and Safety Plan (HASP) has been read and accepted by all site personnel.

NAME	COMPANY	SIGNATURE	DATE
Tim Lambert	Citadel EHS	Tring but at	11-30-2
GRIC CHOI	TDI	all	11/30/21
Kotort Straple	701	Kolf Fin	1/20/2/11
Henry Wpcz	IDI	Aly	11/30/21
	1		
per 10 + 10 -			
		- Committee	



**Appendix E USA** North 811 Ticket

Amendment x132201370-00x Full Ticket Exit Executation Informations Bigaita Information (Continuaci) Ih St Location Cell 818-482-1176



1.0.93

From: notification@usan.org To: Mike Pendergrass

Subject: USA North 811 Confirmation for Ticket X132201370-01X

Date: Thursday, November 18, 2021 11:22:01 AM

EMLCFM 11579X USAN 11/18/21 11:21:57 X132201370-01X AMND NORM POLY LREQ

Ticket: X132201370 Rev: 01X Created: 11/18/21 11:21 User: WMWBTMP Chan: WEB

Work Start: 11/29/21 17:01 Legal Start: 11/29/21 17:01 Expires: 12/16/21 23:59

Response required: Y Priority: 2

**Excavator Information** 

Company: TRINITY DRILLING Co Addr. 114 FERN STREET

City: SANTA CRUZ State: CA Zip: 95060

Created By: MIKE PENDERGRASS Language: ENGLISH

Office Phone: 818-296-9405 SMS/Cell: 818-482-1176

Office Email: mpendergrass@citadelehs.com

Site Contact: MIKE PENDERGRASS

Site Phone: 818-296-9405 Site SMS/Cell: 818-482-1176

Site Email: mpendergrass@citadelehs.com

**Excavation Area** 

State: CA County: ALAMEDA Place: OAKLAND

Zip: 94607

Location: Address/Street: 1396 5TH ST : X/ST1: MANDELA PKWY

: DRILLING ON ENTIRE SITE BOUNDED BY 5TH ST, KIRKHAM ST, MANDELA PKWY

: AND BART LINE.

Delineated Method: WHITE PAINT Work Type: VERTICAL BORING Work For : CITADEL EHS

EBWCMS EAST BAY WATER

Permit: UNKNOWN Job/Work order:

1 Year: N Boring: Y Street/Sidewalk: N Vacuum: N Explosives: U

Lat/Long

Center Generated (NAD83): 37.804679/-122.294054 37.803996/-122.292273

: 37.803694/-122.294432 37.803011/-122.292651

**Excavator Provided:** 

Map link:

https://newtin.usan.org/newtinweb/map\_tkt.nap?TRG=B3w1zzvwyx3n0pV-I

Comments:

\*\*AMENDMENT\*\* EDIT WORK FOR PER MIKE PENDERGRASS--11/18/2021 11:17:51 AM

Members:

CTYOAK CITY OF OAKLAND - CONSTRUCTIO JOHNNY NICKS 510-615-5567

JOHNNY NICKS 510-385-7475

510-287-0600 Name not available

925-819-8483

Emergency Dispatch 510-287-0600 LEVCAL LEVEL 3 COMMUNICATIONS - CALI Specialist

877-366-8344

CABLE PROTECTION MANAG C 877-366-8344

MCIWSA MCI WORLDCOM - CALIFORNIA NATIONAL FACILI' NATIONAL FACILITY LOCATE 800-624-9675 NATIONAL FACILITY LOCATE 800-624-9675

PACBEL PACIFIC BELL Damage Prevention 510-645-2929

**Damage Prevention** 510-645-2929 PGEOAK PGE DISTRIBUTION - OAKLAND John Hilderbrand

**EMERGENCY** 800-743-5000 SFBART SF BART DISTR REAL ESTATE DEP DAVID BAUMAN 510-913-3900

510-464-7000 **BART Police** 

TERDEX TERRADEX INC. Keith Hooper 650-227-3254

**EMERGENCY** 650-413-7553

TPXCO1 TPX COMMUNICATIONS I FRANCISCO BUSA JR 510-314-2146

STACY BABER 925-726-5974

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FREE 811 Safe Digging Education and Training:

For FREE safe digging education and training, visit www.811pro.com. At 811 Pro, you can take our FREE virtual excavator safety course that covers all aspects of the 811 process, and state law requirements. Additionally, you can access and download other safe digging resources that will ensure you follow all the necessary steps and stay safe on your jobsite. Visit www.811pro.com for more information, and to sign up for our FREE virtual excavator training class.

Submit Your Request Online with E-Tickets:

85% of the contractors and excavators submitting tickets today are doing so online through our E-Tickets platform. It not only is saving them time and money, but allows us to keep our 811 phone lines open for damages, emergencies, curious homeowners, and new contractors who need help with the system. With your E-Ticket account you can submit any ticket you have, submit Renew or Re-mark requests, and have access to a stellar team of Web Operations Specialists who are available to help walk you through any questions or issues you might have. For more information on E-Tickets visit usanorth811.org and click the orange "Get Started†button on the top right corner of the page.

Legal Start Information:

You cannot begin digging until each facility owner has responded to your request and it has passed the legal start date and time on your request. If you wish to begin sooner than the legal date and time indicated on your ticket, you must contact each facility operator individually to request that they respond sooner. You must begin digging no later than 14 calendar days after your ticket was created. Phone numbers for the relevant facility operators are listed at the bottom of your ticket.

Missing a Response from a Utility Member Listed on Your Ticket?:

If the legal start date and time has passed and a facility operator has not marked an underground facility at the dig site, state law requires that you process a No Response notice to your ticket. This can be done online through the E-Ticket program at www.usanorth811.org or by calling 811.

Your Ticket Is Only Valid for 28 Calendar Days:

Your ticket will automatically expire 28 calendar days after the date of creation. If you need to continue digging beyond that date, state law requires that you renew your ticket before the expiration date. If the utility markings at your site are no longer clearly visible, you must request a re-mark. Re-mark requests must be submitted at least two working days, not counting the day of submission, before the expiration date of your ticket. You can renew or remark your ticket online through the E-Ticket program at usanorth811.org or by calling 811.

Maintaining Utility Markings and Requesting Re-Marks at your Worksite:

It is your responsibility to respect and protect the utility markings. If the markings become disturbed and are no longer clearly visible, state law requires that you stop excavation and have the area in which the markings have been disturbed re-marked by the appropriate facility operators. Re-mark requests must be submitted at least two working days, not counting the day of submission, before the expiration date of your ticket. You can submit a re-mark request on your ticket online through the E-Ticket program at usanorth811.org or by calling 811.

What Are Private Lines and How Do I Request Locates for Them?:

Utility members are only responsible to locate facilities that they own and maintain. Any other facilities, commonly called private lines, that were installed by a home builder, contractor, or the homeowner themselves, can be located by a private locator. Common private lines are water lines from the water meter to a home, irrigation or sprinkler lines, gas line feeding a back yard barbeque or fire pit, or an electrical line that powers a detached shed. You can find more information about private locators by visiting usanorth811.org or by searching online for "private utility locators.â€

Non-member Facility Owners:

The vast majority, but not all, owners of underground facilities are members of the USA North 811 nonprofit association of utility owners. Non-member entities include California and Nevada departments of transportation, railroads, military, tribal, and a few other entities. Non-pressurized sewer and drain line owners are also exempt from participating in California. Please review the list of utility owners on your ticket and contact any other affected entities directly.

Tolerance Zone and Hand Digging Requirements:

When digging near underground facilities, state law requires that you use only hand tools to expose lines in conflict with your excavation. Hand tools must be used within 24 inches of the outside edge of all utility markings. You may use vacuum equipment only if indicated on your ticket and with the approval of the facility operator whose line will be exposed.

Damaged, Nicked, Scraped, or Dented an Underground Facility?:

If you discover or cause damage, nicks, scrapes, dents, or any other disturbance to a marked or unmarked underground facility, state law requires that you immediately report the damage to the facility owner. You can contact the facility operator directly using the phone number listed at the bottom of your ticket, or you may contact USA North 811 to process a Damage/Exposed ticket. This can be done online through the E-Ticket program at usanorth811.org or by calling 811. You must also contact 911 if you discover or cause damage to a natural gas line, high-voltage power cable, high-pressure or hazardous materials pipeline, or any other high-priority facility. Make sure to evacuate the area before calling 911.

#### Additional Site Information:

When submitting your locate ticket, you should have provided all necessary information about the site including special circumstances such as site access instructions, locked gate information, dogs in the yard or on the property, or any other information that would help assist the locators before arriving to your site. If you forgot to add information like this, you can submit a ticket amendment and add this necessary information to your existing locate ticket. You can submit an amendment online through the E-Ticket program at usanorth811.org or by calling 811.

#### Delineating or Pre-marking Your Work Site:

State law requires that you mark out the dimensions of your project by delineating or pre-marking with something white, such as spray paint, chalk, flags, or stakes to show the utility companies where you plan to dig before you submit your locate ticket. If you have yet to pre-mark your dig site, please do so as soon as possible. You may start digging after the two working day minimum notice or the starting date and time you provided, whichever is later, has passed and every utility operator that was notified on your ticket has responded by either marking their underground facilities at the dig site, letting you know their facilities are not in conflict with your project, or making other arrangements with you.



**Appendix F Boring** Logs

Boring I.D.		Project No.		Project							
B16		0849.1003	.0	Limited Phas	se II Site /	Assessmer					
Location						Logged By:			CITADEL EHS		
	,	kland, Calif	ornia			TL			assess • resolve • strength	en	
Drilling Meth		Driller					Checked By	/:			
Hand Aug	·						MP				
Drilling Date	<b>;</b>	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	t)	
11/30/202	21	0810		0840		#8 Bento	nite	5'	N/A		
Depth	Sample	Sample	PID	Munsell						Graphic	
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log	
1	B16-1	0815	0.0	10YR 4/3	ML	Silt with S	mall Grave	el, Moist, Loose, Brov	vn		
3	B16-3	0832	0.0	7.5YR 3/2	ML	Clayey Sil	Clayey Silt, Moist, Friable, Dark Brown				
4											
5	B16-5	0840	0.0	10YR 4/4	SP	Sand, Very Moist, Very Friable, Brown					
		•		•	End	d Exploration	n at 5'				
					Soil Vap	or Probes s	set at 5' bo	js	·		

Boring I.D.		Project No.		Project								
B17		0849.1003	.0	Limited Phas	se II Site A	Assessmer	-					
Location							Logged By:		CITADEL	FHS		
	,	kland, Calif	ornia			TL			assess • resolve • strength	en en		
Drilling Meth		Driller					Checked By	<i>r</i> :				
Hand Aug	and Auger Trinity Drilling						MP					
Drilling Date	<b>:</b>	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	t)		
11/30/202	21	0815		1005		#8 Bento	nite	5'	4'			
Depth	Sample	Sample	PID	Munsell						Graphic		
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log		
1	B17-1	0822	0.0	10YR 4/3	ML	Silt w/ Sm	all Gravel,	Moist, Loose, Brown				
2 3	B17-3	0956	0.0	10YR 4/4	ML	Silt, Dry, L	.oose, Dar	k Yellowish Brown				
4												
5	B17-5	1003	0.0	10YR 5/2		Sand, Fine, Wet, Very FriableFR, Grayish Brown						
				•	Enc	d Exploration	n at 5'					
					Soil Vapo	r Probes s	et at 3.5' b	gs	·			

Boring I.D.		Project No.		Project								
B18		0849.1003	.0	Limited Phas	se II Site /	Assessmer	nt					
Location							Logged By:		CITADE	IFHS		
1396 Fifth	n Street, Oa	akland, Calif	ornia				TL		assess · resolve · streng	then		
Drilling Meth	nod	Driller					Checked By	r.				
Hand Aug	uger Trinity Drilling						MP					
Drilling Date	•	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fe	et)		
11/30/202	21	0935		1010		#8 Bento	nite	5'	2.5'			
Depth	Sample	Sample	PID	Munsell						Graphic		
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log		
1	B18-1	0940	0.0	10YR 3/2	SP	Clayey Sa	and, Fine, I	Loose, Moist, Very Da	ark Grayish Brown			
3	B18-3	0953	0.0	7.5YR 3/1	ML	Clayey Sil	t, Wet, Lo	ose, Slightly Plastic, \	√ery Dark Gray			
4												
5	B18-5	1008	0.0	10YR 3/2	SP	Sand, Fine, Wet, Loose, Very Dark Grayish Brown						
				•	End	d Exploration	on at 5'					
		•			Soil Vapo	r Probes s	et at 1.5' b	gs	•			

Boring I.D.		Project No.		Project							
B19		0849.1003	.0	Limited Phas	se II Site A	Assessmen					
Location						Logged By:			CITADEL EHS		
	,	kland, Calif	ornia			TL			assess - resolve - strengthen		
Drilling Meth		Driller					Checked By	/:			
Hand Aug	Auger Trinity Drilling						MP				
<b>Drilling Date</b>	<b>:</b>	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	t)	
11/30/202	21	1140		1215		#8 Bento	nite	5'	4.5'		
Depth	Sample	Sample	PID	Munsell						Graphic	
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log	
1	B19-1	1145	0.0	10YR 4/2	ML	Sandy Silt	, Loose, D	Ory, Dark Grayish Brov	wn		
2 3	B19-3	1204	0.0	10YR 4/6	ML	Clayey Sil	t, Moist, V	ery Friable, Dark Yell	owish Brown		
4											
5	B19-5	1209	0.0	10YR 5/4	ML	Clayey Silt, Wet, Slightly Plastic, Yellowish Brown					
					Enc	d Exploration	on at 5'				
			•		Soil Vapo	r Probes se	et at 3.5' b	gs			

Boring I.D.		Project No.		Project								
B20		0849.1003	.0	Limited Phas	se II Site A	Assessmer	-					
Location							Logged By:		CITADEL EHS			
	,	kland, Calif	ornia			TL			assess • resolve • strength	assess · resolve · strengthen		
Drilling Meth		Driller					Checked By	<i>r</i> :				
Hand Aug	jer	Trinity Drilli	, ,				MP					
Drilling Date	:	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	et)		
11/30/202	21	1220		1325		#8 Bento	nite	5'	N/A			
Depth	Sample	Sample	PID	Munsell						Graphic		
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log		
1	B20-1	1226	0.0	10YR 4/4	ML	Gravelly S	Silt, Dry, Lo	Brown				
2 3	B20-3	1318	0.0	10YR 4/4	ML	Gravelly S	Silt, Dry, Lo	oose, Dark Yellowish	Brown			
4												
5	B20-5	1323	0.0	10YR 4/2		Clayey Silt, Slightly Moist, Very Friable, Dark Grayish Brown						
					Enc	d Exploration	n at 5'					
				·	Soil Vap	or Probes s	set at 5' bg	js				

Boring I.D.		Project No.		Project								
B21		0849.1003	.0	Limited Phas	se II Site A	Assessmer						
Location						Logged By:			CITADEI	FHS		
1396 Fifth	Street, Oa	akland, Calif	ornia				TL		assess • resolve • strength	en en		
Drilling Meth		Driller					Checked By	r:				
Hand Aug	d Auger Trinity Drilling						MP					
<b>Drilling Date</b>	•	Start Time		Completion Tim	е	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	et)		
11/30/202	21	1245		1305		#8 Bento	nite	5'	4'			
Depth	Sample	Sample	PID	Munsell						Graphic		
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log		
1	B21-1	1251	0.0	10YR 5/2	ML	Sandy Silt	t, Dry, Loo	se, Grayish Brown				
2 3	B21-3	1256	0.0	10YR 5/2	ML	Sandy Silt	t, Dry, Loo					
4				,								
5	B21-5	1300	0.0	10YR 4/2		Sand, Fine, Wet, Loose, Dark Grayish Brown						
					Enc	l Exploration	on at 5'	·				
				_	Soil Vapo	or Probes s	set at 3' bg	js				

Boring I.D.		Project No.		Project								
B22		0849.1003	.0	Limited Phas	se II Site A	Assessmer						
Location							Logged By:		CITADE	FHS		
1396 Fifth	Street, Oa	akland, Calif	ornia				TL		assess • resolve • strengt	hen		
Drilling Meth		Driller					Checked By	r:				
Hand Aug	jer	Trinity Drilling					MP					
<b>Drilling Date</b>	:	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	et)		
11/30/202	21	1350		1415		#8 Bento	nite	5'	2.5'			
Depth	Sample	Sample	PID	Munsell						Graphic		
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log		
1	B22-1	1356	0.0	10YR 4/2	SP	Clayey Sa	and, Moist,	Loose, Dark Grayish	Brown			
3	B22-3	1401	0.0	10YR 5/2	SM	Silty Sand	l, Wet, Loc	ose, Grayish Brown				
4												
5	B22-5	1409	0.0	10YR 5/2	SM	Gravelly, Silty Sand, Wet, Loose, Grayish Brown						
					Enc	d Exploration	on at 5'					
			·		Soil Vapo	r Probes s	et at 1.5' b	gs				

Boring I.D.				Project						
B23		0849.1003.0				Limited Phase II Site Assessment				
Location					Logged By:		CITADE	FHS		
	,	kland, Calif	ornia				TL		assess • resolve • strength	nen
Drilling Meth		Driller					Checked By	<i>r</i> :		
Hand Aug	ger	Trinity Drill	ing				MP			
Drilling Date	<b>;</b>	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	∍t)
11/30/202	21	1555		1615		#8 Bento	nite	5'	2'	
Depth	Sample	Sample	PID	Munsell						Graphic
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log
						Sand, Slig	htly Moist	, Slightly Hard,		
1	B23-1	1601	0.0	2.5Y 3/2	SW	Very Dark	Gravish E	Brown		
						, ,	, -			
2				,						
_					_					
3	B23-3	1607	0.0	2.5Y 4/1	SW	Sand, We	t Dark Gr	av		
Ŭ	D20 0	1007	0.0	2.01 4/1	011	Caria, Wo	t, Dank On	цу		
4										
4										
5	B23-5	1611	0.0	2.5Y 4/1	SW			Dark Gray		
	End Exploration at 5'									
	Soil Vapor Probes set at 1.5' bgs									

Boring I.D.		Project No.		Project						
B24		0849.1003	.0	Limited Phase II Site Assessment						
Location							Logged By:		CITADEL	FHS
	,	akland, Calif	ornia				TL		assess • resolve • strengtho	- LII
Drilling Meth		Driller					Checked By	r:		
Hand Aug	jer	Trinity Drilli	ing				MP			
<b>Drilling Date</b>		Start Time		Completion Tim	е	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	t)
11/30/202	<u>!</u> 1	1620		1650		#8 Bento	nite	5'	NA	
Depth	Sample	Sample	PID	Munsell						Graphic
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log
1 2	B24-1	1626	0.0	2.5Y 4/3	ML	Clayey Sil	t, Slightly	, Firm, Olive Brown Moist, Friable,		
3	B24-3	1634	5.6	10YR 3/2	ML	Very Dark	Grayish E	Brown		
5	B24-5	1643	1.2	10YR 2/2	CL	, ,		able, Very Dark Brow	n	
	End Exploration at 5'									
					Soil Vap	or Probes s	set at 5' bg	ıs	<u>.                                      </u>	

Boring I.D.		Project No.		Project						
B25		0849.1003	.0	Limited Phas	se II Site A					
Location							Logged By		CITADE	FHS
		kland, Calif	ornia				TL		assess - resolve - strengt	hen
Drilling Meth		Driller					Checked B	y:		
Hand Aug		Trinity Drill	ing				MP	_		
Drilling Date		Start Time		Completion Tim	е	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fee	et)
11/30/202	21	1425		1440		#8 Bento	nite	5'	4'	
Depth	Sample	Sample	PID	Munsell						Graphic
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description	1	Log
						Clayey Sa	nd, Sligh	tly Moist, Loose,		
1	B25-1	1428	0.0	10YR 3/2	SC	Very Dark	Gravish	Grown		
						1	•			
2										
						Clavey Sa	nd. Sliah	tly Moist, Loose,		
3	B25-3	1432	0.0	10YR 3/2	SC	Very Dark				
Ĭ	220 0	1 102	0.0	1011110/2		l vory barre	Oraylon	0.0		
4				1						
4										
						l				
5	B25-5	1436	0.0	10YR 4/1		Clayey Sil		ark Gray		
	End Exploration at 5'									
					Soil Vap	or Probes s	set at 3' b	gs	<u> </u>	

Boring I.D.		Project No.		Project						
B26		0849.1003.0 Limited Phase II Site A			Limited Phase II Site Assessment					
Location				Logged By:		CITADE	FHS			
	,	ıkland, Calif	ornia				TL		assess - resolve - strengt	hen
Drilling Meth		Driller					Checked By	<i>r</i> :		
Hand Aug	jer	Trinity Drilli	ing				MP			
<b>Drilling Date</b>		Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fe	et)
11/30/202	21	1525		1545		#8 Bento	nite	5'	N/A	
Depth	Sample	Sample	PID	Munsell						Graphic
(feet)	ID	Time	(ppm)	Color	USCS			Soil Description		Log
						Sand with	Gravel, S	lightly Moist, Hard,		
1	B26-1	1530	0.0	10YR 4/2	SW	Dark Gray	ish Brown			000000000000000000000000000000000000000
2										
3	B26-3	1537	0.0	2.5Y 4/1	SC	Clayov Sa	nd Courc	e, Moist, Loose, Dark	Gray	
3	D20-3	1557	0.0	2.51 4/1	30	Clayey Sa	iliu, Cours	e, Moist, Loose, Dair	Glay	000000000000000000000000000000000000000
4										
5	B26-5	1543	0.0	2.5Y 4/1	SC	Clayey Sand, Course, Moist, Loose, Dark Gray				
					End	d Exploration	n at 5'			
					Soil Vap	or Probes s	set at 5' bo	js		

Boring I.D.		Project No. Project		Project						
B27		0849.1003	.0	Limited Phase II Site Assessment						
Location					Logged By:		CITADE	I FHS		
1396 Fifth	Street, Oa	akland, Calif	ornia				TL		assess · resolve · strengt	hen
Drilling Meth	nod	Driller					Checked By	r:		
Hand Aug	ger	Trinity Drill	ing				MP			
<b>Drilling Date</b>	•	Start Time		Completion Tim	ie	Backfilling	Grout	Total Depth (feet)	Depth to Groundwater (fe	et)
11/30/202	21	1455		1515		#8 Bento	nite	5'	4'	
Depth	Sample	Sample	PID	Munsell						Graphic
(feet)	ID	Time	(ppm)	Color	USCS			Soil Descriptio	n	Log
						Clayey Sa	nd, Slightl	y Moist, Loose,		
1	B27-1	1458	0.0	10YR 3/2	SC	Very Dark		•		
						, ,	,			
2										
						Clavey Sa	nd. Slightl	y Moist, Loose,		
3	B27-3	1503	0.0	10YR 3/2	SC	Very Dark				
Ĭ	<i>B21</i> 0	1000	0.0	10111 0/2	00	Vory Bank	Olaylon L	) OWII		
4				,						
4					_					
5	B27-5	1509	0.0	10YR 4/1	SW	######################################				
	End Exploration at 5'									
	Soil Vapor Probes set at 2.5' bgs									



**Appendix G Citadel** Field Notes

# CITADEL EHS PROJECT DOCUMENTATION



LIENT	Michael"s Development	PAGE	( OF	
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert	
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling	
PROJECT WORK AREA		SUPERVISOR	Atiko Dondororos	
PROJECT LOCATION	1396 Fifth Street	SUPERVISOR	Mike Pendergrass	

TIME	FIELD NOTES
0730	Citadel on site.
0740	Trivity + PC+E arrive on site Piscuss SOW, conduct
	safety meeting.
0800	Trinity begins setup on east side at BIG+BIT.
0810	Trivity begins setup on east side at B16+B17.  Begin hand augering B16+B17. Part begins investigating
	utility lines on south side of site.
0845	Bl6 complete, begin setting probe.
0915	Probe and well box is set at 1516. Soil is full of
	large 3"-4" gravel making augering difficult.
)	PG+E gives permission to use drill rig outside of
	PG+E gives permission to use drill rig outside of the area of concern at the eastern center portion
	of the site.
8920	B17 is aboudoned due to large gravel. Second attempt
	B17 is abandoned due to large gravel. Second attempt is made 4 north. Original boring is grouted. Begin hand
	augerira 1518.
0945	Bly groundwater at 2.5'. Will collect soil to 5' and set
	probe above water level.
1010	Begin setting probes in B17 + B18.
1020	BIT + BI8 probes and well boxes set.
1025	Trinity recieves a call from PWA asking to stop
	work pending permit approval. Work halts. Awaiting
1120	permission to proceed.
1130	Trinity gets verbal approval to proceed.
1140	Begin hand augering B19.
1215	Begin hand augering B20.
I /A 70	Begin drilling Bal.
ITADEL REPRESENTA	Tim Lambert DAY: Tuesday
SIGNATURE:	Tin- Landa I
Revised November 2019	

# CITADEL EHS PROJECT DOCUMENTATION



LIENT	Michael"s Development	PAGE	2 OF	
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert	
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling	
PROJECT WORK AREA		SUPERVISOR	Adika Dandararas	
PROJECT LOCATION	1396 Fifth Street	30FERVISOR	Mike Pendergrass	

LOCATION	
TIME	FIELD NOTES
1310	B21 probe set. Jose from PWA on site. No issues.  B20 probe set. Proceed to B22. PWA off site.  B22 probe set at 1.5'
1340	BRO probe set. Proceed to B22. PWA off site.
1420	B22 probe set at 1.5°
1425	Begin drilling 1325.
1449	Begin drilling 1325. BAS probe set at 3'.
1456	Begin drilling B27.
1520	Begin drilling B27. B27 probe set at 1.5.
1530	Begin drilling B26.  Begin drilling B23.  Begin drilling B23.  B23 probe set at 1.5'.  Begin drilling at B24.  B24 probe set at 5'.
1550	Ble Ball probe set at 5'.
1600	Begin drilling B23.
1622	B23 probe set at 1.5%
1624	Begin drilling at B24.
1651	BIH probe set at 5.
ITADEL REPRESENTA	Tim Lambert DAY: Tuesday
SIGNATURE:	Tim Lambert DAY: Tuesday  DATE: 11-30-21

Revised November 2019

# CITADEL EHS PROJECT DOCUMENTATION



LIENT	Michael"s Development	PAGE	/ OF 2
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert / Mike Pendergrass
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Miles Dan deserves
PROJECT LOCATION	1396 Fifth Street	SUPERVISOR	Mike Pendergrass

TIME	FIELD NOTES
0930	Citadel on site. Grain access to site and begin
	equipment setup.
0950	Setup at Baco with helium shroud, purge cannister, two helium detectors (lunder shroud, lin sampling chain), and a 1-liter SUMMA sample cannister. Perform shut-in test on
	two helium detectors (lunder shroud, lin sampling chain), and
	a 1-liter SUMMA sample cannister. Perform shut-in test on
	sample convistes
1000	Apply helium and begin purge. Helium maintained at
	20%-40% volume in shroud.
1005	Purge begins to pull water due to flooded probe.
)	Abort sampling at Bala. Proceed to B27.
1025	Setup at B27 complete. Remaining locations are split
	between Mike P. and Tim L. Mike continues sampling at
	B27. Tim proceeds to B25.
1040	Gather supplies and begin setup at 1325.
1104	Grather supplies and begin setup at 1325.  Begin purge. Monitor helium levels. Perform shut-in test.
1112	Degin' sampling.
1120	B25 complete. Proceed to B22.
1138	Begin purge and standard protocols.
1145	Begin Sompling.
1151	B22 complete Proceed to B21, begin setup
1215	Begin purge and standard protocols.
1220	Bal begins pulling water. Abort sampling Proceed to BIG.
1240	Begin purge at B16, Standard protocol.
1243	Blo begins pulling water, Abort sampling. Proceed to
	B17 and begin setup.
1301	Begin purge at BIT. Standard protocol used
ITADEL REPRESENTA	Tim Lambert DAY:
SIGNATURE:	Tim fartit DATE: 12-2-21

Revised November 2019

#### CITADEL EHS PROJECT DOCUMENTATION



LIENT	Michael's Development	PAGE	2 OF a									
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert									
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling									
PROJECT WORK AREA PROJECT		SUPERVISOR	Mike Pendergrass									
LOCATION	1396 Fifth Street											
TIME		FIELD NOTES	B17									
1311	Purge complete. I	Segin Sampli	ng at Bar with									
	duplicate connisters using inline tititing.											
1335	Sampling at B& BI	7 is comple	te. Begin clean up									
12 -		begin setup.										
1358	Begin purge and sta	udard protocol	5.									
1409	Begin sampling.	1 L Au 1										
1777			have been checked									
	and sampled where po	A A A A A A A A A A A A A A A A A A A	flooded probes, one									
1485	duplicate sample is s Begin setup at BI8		uplicate.									
1 1435	In line helium detect	1 1	a helium directly from									
1100	the probe at a conc	۸ .	. + /									
	possible contamination		moved to B27to									
	collect duplicate.											
1455	Helium is also detec	ted in B27 a	a similar volume.									
	It is unknown how t	nis could occ	ur as further									
	purging does not seen	n to lower th	e level. Purging									
	continues.	1	3 0									
1510	Helium is still detec	-9	of extended purging.									
	1 4 1	327-50D, but u	mexplained helium									
1510	levels should be not	0										
1318	Sampling complete.	Degin clean	up.									
1551	Samples delivered	to to deliver	- samples to lab.									
1502	Samples delivered	to Enthalpy.										
ITADEL REPRESENTA	TIVE: Tim Lambert	-	DAY:									
SIGNATURE:	I in farlet		DATE: 12-2-21									
Revised November 2019	/											

# CITADEL EHS PROJECT DOCUMENTATION



CLIENT	Michael"s Development	PAGE	/ of 3				
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Mike Pendergrass				
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling				
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass				
PROJECT LOCATION	1396 Fifth Street	SUFERVISOR	Mike rendergrass				

TIME	FIELD NOTES
0930	Arrive onsite w/ Tim hambert, Check in w/ Job Training
	site to set the gak unlocked
-	Unloaded the equipment and discussed the plan for
	the day,
	The laboratory supplied all sampling equipment and
	two helum shroud setups along with several helium
	Canisters, helium ganges, purze summe canisters and
	manifolding hardware.
1000	Setup on B26 with helpen shround. Began pursus
· .	the vapor probe and immediately started drawing
	water, No Sample from B26.
1015	Split up the remaining wells and started sampling.
	Setup on B27 which has a vapor probe at 2.5.
	Setup helium shroud and maintained helium between
	20 and 40% beneath the shroud. Calculate purging
	time based on 150 ml per minute flow rate, Personned
1047	comple Shut in test, Every thing checked out.
1047	Completed pursus and started sample collection,
1055	Completed sampling and moved to B24.
	Setup on B24, performed purgue with helum shround
(1).0	and personned shut in test. Oh
1119	Begin sampling Ba4. Very low flow Canisher and
	down hole vaccum gauses converged at ~16 mon Had Hg.
41.	after sampling for 17 minutes.
1136	Completed sampling after canister and Juntile vacaums
CITA DEL DEDDECETO	equalizedat 16"Hz. Moved to B23 and setup.
CITADEL REPRESENTA	Mike Pendergrass DAY: Thursday
SIGNATURE:	Mile Brilleyun DATE: Dec 2, 2021

#### CITADEL EHS PROJECT DOCUMENTATION



CLIENT	Michael"s Development	PAGE	2 of 3				
PROJECT NUMBER	10849 1003 O	CITADEL REPRESENTATIVE	Mike Pendergrass				
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling				
PROJECT WORK AREA		SUPERVISOR	Mike Bandararas				
PROJECT LOCATION	1396 Fifth Street	SUPERVISOR	Mike Pendergrass				

TIME	FIELD NOTES
1145	Setypen B23, Will collect a duplicate sample at this
	location. Setup shroud, duplicak sample manifold,
	and serting shut in test.
1772	Complet purging up incident and begin collectors
	sample. Shortly after starting, water was drawn
	From the proble. Attempt to allow water to drop
	and continue sampling, but not successful No samples
	from B23. More to B20.
1305	setup on B20, Will again attempt to collect
	duplicate sample. Setyp shround and perform
	shut in fest and stoot purging . There isn't a flow
	guase on the purse canister, monitor vacuum to verify
	raper flow. Gauge 15 got noving and also having
	trouble maintaining helium concentrations. Change helium
	bottles twice and finally able to maintain helium
	concentrations. Still appears to be no flow on the
	purze cannister. Change the purze cannister and
	now appears to have vapor flow and complete
1226	purging,
1330	Prepare to begin sampling and notice that both sample
s	Canyesterr have O" Hy vacuum. There may have been
	a bad connection when changing out the purge cannuler.
1342	Switch from two consisters to only one. And begin sampling Begin sampling BRO. Started drowing some weeken but
1012	Begin sampling BRO. Started drowing some weeken, but was able to set the sample by repeatedly shuffing the
	value and ficking to hose to allow the water to your down that is
CITADEL REPRESENTA	
IGNATURE:	Mile Soulerum DATE: Dec 2, 2021
vised November 2019	

# CITADEL EHS PROJECT DOCUMENTATION



CLIENT	Michael"s Development	PAGE	3 OF 3			
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Mike Pendergrass			
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling			
PROJECT WORK AREA		SUPERVISOR	Miko Penderaras			
PROJECT LOCATION	1396 Fifth Street	JUFER VIJOR	Mike Pendergrass			

TIME	FIELD NOTES
1355	Complete sampling B20 and more to B19.
	Setup on BIG. I moreliately start drawing waters
	No Saugle from B19,
1420	This completes the sampling, but still need anothe
	duplicates We have one more cams ter and regulators
	Complete sampling BaO and more to B19.  Setup on B19. I more liately start drawing water.  No Sample From B19.  This completes the sampline, but stall need anothe duplicates we have one more cams for and regulators.  We mobilize to Ba7 to collect a lind sample from
	this probe, since it had no sign of warking
	this probe, since it had no sign of warker.  Pupliate sample from B27 covered in Tim Lamberts
	ndiec.
1518	Finished sampling 1327. Stort pacting up. Citadel off site and heading to the lab.
1545	Citadel off site and heading to the Lab.
	· ·
	2007 XUVE-14C4750
·	
	·
CITADEL REPRESENTA	Mike Pendengrass Thursday
SIGNATURE:	Mile Vereleyen DATE: Dec. 2, 2021



**Appendix H Laboratory** Reports and Chain of Custody



Enthalpy Analytical 931 West Barkley Ave Orange, CA 92868 (714) 771-6900

enthalpy.com

Lab Job Number: 454317

Report Level: II

Report Date: 12/08/2021

#### **Analytical Report** *prepared for:*

Mike Pendergrass Citadel EHS 2 Peters Canyon Road Irvine, CA 92606

Location: 1396 Fifth Street, Oakland, CA

Authorized for release by:

Jim Lin, Service Center Manager

Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, CDC ELITE Member



#### **Sample Summary**

Mike Pendergrass Lab Job #: 454317

Citadel EHS Location: 1396 Fifth Street, Oakland, CA

2 Peters Canyon Road Date Received: 11/30/21 Irvine, CA 92606

Sample ID Lab ID Collected Matrix B16-1 454317-001 11/30/21 08:15 Soil B16-3 454317-002 11/30/21 08:32 Soil Soil B16-5 454317-003 11/30/21 08:40 B17-1 11/30/21 08:22 Soil 454317-004 B17-3 454317-005 11/30/21 09:56 Soil Soil B17-5 454317-006 11/30/21 10:03 B18-1 454317-007 11/30/21 09:40 Soil 454317-008 Soil B18-3 11/30/21 09:53 B18-5 454317-009 11/30/21 10:08 Soil B19-1 454317-010 11/30/21 11:45 Soil B19-3 454317-011 11/30/21 12:04 Soil B19-5 454317-012 11/30/21 12:09 Soil B20-1 454317-013 11/30/21 12:26 Soil Soil B20-3 454317-014 11/30/21 13:18 B20-5 Soil 454317-015 11/30/21 13:23 B21-1 454317-016 11/30/21 12:51 Soil Soil B21-3 454317-017 11/30/21 12:56 Soil B21-5 454317-018 11/30/21 13:00 B22-1 11/30/21 13:56 Soil 454317-019 B22-3 11/30/21 14:01 Soil 454317-020 Soil B22-3D 454317-021 11/30/21 14:01 B22-5 454317-022 11/30/21 14:09 Soil B25-1 454317-023 11/30/21 14:28 Soil B25-3 454317-024 11/30/21 14:32 Soil B25-5 454317-025 11/30/21 14:36 Soil B27-1 454317-026 11/30/21 14:58 Soil B27-1D 454317-027 11/30/21 14:58 Soil B27-3 454317-028 11/30/21 15:03 Soil



# **Sample Summary**

Mike Pendergrass Lab Job #: 454317

Citadel EHS Location: 1396 Fifth Street, Oakland, CA

2 Peters Canyon Road Date Received: 11/30/21

Irvine, CA 92606

Sample ID	Lab ID	Collected	Matrix
B27-5	454317-029	11/30/21 15:09	Soil
B26-1	454317-030	11/30/21 15:30	Soil
B26-3	454317-031	11/30/21 15:37	Soil
B26-5	454317-032	11/30/21 15:43	Soil
B23-1	454317-033	11/30/21 16:01	Soil
B23-3	454317-034	11/30/21 16:07	Soil
B23-5	454317-035	11/30/21 16:11	Soil
B24-1	454317-036	11/30/21 16:26	Soil
B24-3	454317-037	11/30/21 16:34	Soil
B24-5	454317-038	11/30/21 16:43	Soil



#### **Case Narrative**

Citadel EHS Lab Job Number: 454317

2 Peters Canyon Road Location: 1396 Fifth Street, Oakland, CA

Irvine, CA 92606 Date Received: 11/30/21 Mike Pendergrass

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 11/30/21. The samples were received cold and intact.

#### TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

#### TPH-Extractables by GC (EPA 8015M):

ORO C28-C44 was detected between the MDL and the RL in the method blank for batch 279190. No other analytical problems were encountered.

#### Volatile Organics by GC/MS (EPA 8260B):

Low surrogate recovery was observed for dibromofluoromethane in B22-5 (lab # 454317-022). No other analytical problems were encountered.

#### Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):

Many samples were diluted due to the dark color of the sample extracts. No other analytical problems were encountered.

#### PCBs (EPA 8082):

No analytical problems were encountered.

#### Metals (EPA 6010B and EPA 7471A):

Low recoveries were observed for antimony in the MS/MSD of B16-1 (lab # 454317-001); the LCS was within limits, and the associated RPD was within limits. High recovery was observed for barium in the MS of B16-1 (lab # 454317-001); the LCS was within limits, and the associated RPD was within limits. Zinc was detected between the MDL and the RL in the method blank for batch 279144; this analyte was detected in samples at a level at least 10 times that of the blank. No other analytical problems were encountered.

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#### Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

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	, in good condition and co	mplete?						
Does the container count		<u> </u>						
Do the sample labels agre								
	sample sent for tests requ							
	ime in LIMS for unpreserv							
	ime in LIMS for preserved	terracores?						_
Are bubbles > 6mm prese								/
Was the client contacted	concerning this sample de	livery?						
If YES, who was calle	d?	Ву_		Date:				
Section 5:		1				YES	NO	N/A
Are the samples appropri	ately preserved? (if N/A	A, skip the rest o	f section 5)					
Did you check preservativ	es for all bottles for each s	sample?						
Did you document your p								
	, pH strip lot# _		, pH strip	lot#				
Preservative added:								
☐ H2SO4 lot#	added to samples	:			on/at _			
☐ HCL lot#	added to samples				on/at .			
☐ HNO3 lot#	added to samples				on/at			
□ NaOH lot#	added to samples				on/at			
Section 6:		,						
Explanations/Comments:	,				-			
		1			· · · ·			
					-			
					-			
Date Logged in 12/	//で( By (print)	MAC		1 1	- '			

Enthalpy Analytical - Berkeley

Rev.15.1, 09/13/2019



#### SAMPLE ACCEPTANCE CHECKLIST

	<u> </u>			
Section 1				
Client: CITADEL EHS	Project: 1390 FIFTH S	गण्डल		
Client: <u>CITADEL EHS</u> Date Received: <u>Iン/ン/ン</u> J	Sampler's Name Present:	Yes	No	
Section 2	1			
Sample(s) received in a cooler? Yes, How many?	NO (skip section 2)	Sampl	le Temp (°C)	:
Sample Temp (°C), One from each cooler: #1: 3-3		#4.	(No Cooler)	*
(Acceptance range is < 6°C but not frazen (for Microbiology samples, accept			e for samples	s collected
the same day as sample receipt to hove a higher temperat				
Shipping Information: GIVEY (1404~ 2				
Section 3				
Was the cooler packed with: Ice Ice Packs Paper None	Bubble Wrap Styrof	oam		
Cooler Temp (°C): #1: 1.0 #2:	#3:	#4:		
	1			
Section 4		YES	NO	N/A
Was a COC received?	<del> </del>	<del>                                     </del>	-	
Are sample IDs present?	1			
Are sampling dates & times present?			1	
Is a relinquished signature present?		+ +	ļ <u>.</u>	
Are the tests required clearly indicated on the COC?	<u> </u>	+		
Are custody seals present?	!···	+	-	
If custody seals are present, were they intact?	or Microbiology camples	+	ļ <u> </u>	<del></del>
Are all samples sealed in plastic bags? (Recommended f Did all samples arrive intact? If no, indicate in Section 4				
Did all bottle labels agree with COC? (ID, dates and time			1	
Were the samples collected in the correct containers for				
Are the containers labeled with the correct preserv		+	<del>                                     </del>	
Is there headspace in the VOA vials greater than 5-6 mm		+		
Was a sufficient amount of sample submitted for the rec	······			<u> </u>
Section 5 Explanations/Comments		,		
	<del></del>			
	<u> </u>	-		
Section 6	1			
For discrepancies, how was the Project Manager notified	d? Verbal PM Initials: Email (email sent to/			
Project Manager's response:				
		1		
		·		
Completed By:	_Date: 12/2/21			
	Montrose Environmental Group ,Inc.	1		

www.enthalpy.com/socal Sample Acceptance Checklist – Rev 4, 8/8/2017



1.0 /3.3



Mike Pendergrass Citadel EHS 2 Peters Canyon Road Irvine, CA 92606

Lab Job #: 454317 Location: 1396 Fifth Street, Oakland, CA

Date Received: 11/30/21

Sample ID: B16-1 Lab ID: 454317-001 Collected: 11/30/21 08:15

Matrix: Soil

454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.8	1.5	0.93	279144	12/02/21	12/06/21	KLN
Arsenic	4.5		mg/Kg	0.93	0.62	0.93	279144	12/02/21	12/06/21	KLN
Barium	190		mg/Kg	0.93	0.093	0.93	279144	12/02/21	12/06/21	KLN
Beryllium	0.27	J	mg/Kg	0.46	0.10	0.93	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.46	0.069	0.93	279144	12/02/21	12/06/21	KLN
Chromium	41		mg/Kg	0.93	0.19	0.93	279144	12/02/21	12/06/21	KLN
Cobalt	8.0		mg/Kg	0.46	0.063	0.93	279144	12/02/21	12/06/21	KLN
Copper	27		mg/Kg	0.93	0.56	0.93	279144	12/02/21	12/03/21	KLN
Lead	20		mg/Kg	0.93	0.78	0.93	279144	12/02/21	12/06/21	KLN
Molybdenum	0.67	J	mg/Kg	0.93	0.55	0.93	279144	12/02/21	12/06/21	KLN
Nickel	46		mg/Kg	0.93	0.24	0.93	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.8	0.37	0.93	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.46	0.15	0.93	279144	12/02/21	12/03/21	KLN
Thallium	0.69	J	mg/Kg	2.8	0.54	0.93	279144	12/02/21	12/06/21	KLN
Vanadium	59		mg/Kg	0.93	0.40	0.93	279144	12/02/21	12/03/21	KLN
						0.00	070111	10/00/01	10/00/01	IZI NI
Zinc	58		mg/Kg	4.6	0.69	0.93	279144	12/02/21	12/06/21	KLN
Zinc  Method: EPA 7471A  Prep Method: METHOD										
Method: EPA 7471A	0.14	J	mg/Kg	0.16	0.69	1.2	279144	12/03/21	12/03/21	TNN
Method: EPA 7471A Prep Method: METHOD		J								
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B		J								
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B	0.14	J	mg/Kg	0.16	0.045	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline	0.14	J	mg/Kg	0.16	0.045	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates	<b>0.14</b> ND	J	mg/Kg	0.16 3.0 <b>Limits</b>	0.045	1.2	279206 279137	12/03/21	12/03/21	TNN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M	<b>0.14</b> ND	J	mg/Kg	0.16 3.0 <b>Limits</b>	0.045	1.2	279206 279137	12/03/21	12/03/21	TNN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580	0.14 ND 89%	J	mg/Kg mg/Kg %REC	0.16 3.0 <b>Limits</b> 60-140	0.045	1.2	279206 279137 279137	12/03/21 12/02/21	12/03/21 12/02/21 12/02/21	TNN EMW EMW
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28	0.14 ND 89%	J	mg/Kg mg/Kg %REC	0.16 3.0 Limits 60-140	0.045	1.2	279206 279137 279137 279190	12/03/21 12/02/21 12/02/21 12/03/21	12/03/21 12/02/21 12/02/21	TNN  EMW  EMW
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44	0.14 ND 89%	J	mg/Kg mg/Kg %REC	0.16  3.0  Limits  60-140	0.045	1.2	279206 279137 279137 279190	12/03/21 12/02/21 12/02/21 12/03/21	12/03/21 12/02/21 12/02/21	TNN  EMW  EMW
Method: EPA 7471A Prep Method: METHOD  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates	0.14 ND 89%	J	mg/Kg mg/Kg %REC mg/Kg mg/Kg	0.16  3.0  Limits 60-140  10 20  Limits	0.045	1.2	279206 279137 279137 279190 279190	12/03/21 12/02/21 12/02/21 12/03/21 12/03/21	12/03/21 12/02/21 12/02/21 12/07/21 12/07/21	TNN  EMW  EMW  MES  MES
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082	0.14 ND 89%	J	mg/Kg mg/Kg %REC mg/Kg mg/Kg	0.16  3.0  Limits 60-140  10 20  Limits	0.045	1.2	279206 279137 279137 279190 279190	12/03/21 12/02/21 12/02/21 12/03/21 12/03/21	12/03/21 12/02/21 12/02/21 12/07/21 12/07/21	TNN  EMW  EMW  MES  MES
Method: EPA 7471A Prep Method: METHOD  Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546	0.14 ND 89% 36 110		mg/Kg mg/Kg %REC mg/Kg mg/Kg	0.16  3.0  Limits 60-140  10 20  Limits 70-130	0.045 0.24 2.4 2.4	1.2	279206 279137 279137 279190 279190	12/03/21 12/02/21 12/02/21 12/03/21 12/03/21	12/03/21 12/02/21 12/02/21 12/07/21 12/07/21	TNN  EMW  EMW  MES  MES



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454317-001 Analyte	Result	Qual U	nits	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1242	ND	ug	/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND	ug	/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND	ug	/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND	ug	/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND	ug	/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1268	ND	ug	/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	63%	%F	REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND	ug	/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug	/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug	/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND	ug	/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
tert-Butyl Alcohol (TBA)	ND		/Kg	10	8.8	1	279153	12/02/21	12/02/21	RAO
Freon 12	ND		/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Chloromethane	ND		/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND		/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND		/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND		/Kg	5.0	0.3	<u>·</u>	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND		/Kg	5.0	0.3	<u>·</u> 1	279153	12/02/21	12/02/21	RAO
Acetone	ND		/Kg	100	25	<u>·</u> 1	279153	12/02/21	12/02/21	RAO
Freon 113	ND		/Kg	5.0	0.7	<u>·</u> 1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND		/Kg	5.0	0.2	<u>.</u> 1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND		/Kg	5.0	0.7	<u>'</u>	279153	12/02/21	12/02/21	RAO
MTBE	ND		/Kg	5.0	0.7	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND		/Kg	5.0	0.4	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
1.1-Dichloroethane	ND		/Kg /Kg	5.0	0.4	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND			100	3.2		279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND ND		/Kg	5.0	0.5	1 1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane			/Kg							
<u> </u>	ND		/Kg	5.0	0.5	1	279153	12/02/21 12/02/21	12/02/21	RAO
Chloroform	ND		/Kg	5.0	0.4	1	279153		12/02/21	RAO
Bromochloromethane	ND		/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND		/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND		/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND		/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND		/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND		/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND		/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND		/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND		/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND		/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND		/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND	ug	/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO



454317-001 Analyte	Result	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND	ug/Kg	10	8.0	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates			Limits						
Dibromofluoromethane	88%	%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	102%	%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	98%	%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	100%	%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	50	10	5	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND	ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW
Naphthalene	ND	ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW



454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Acenaphthylene	ND		ug/Kg	50	36	5	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	50	11	5	279158	12/03/21	12/04/21	TJW
Phenanthrene	21	J	ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Fluoranthene	45	J	ug/Kg	50	12	5	279158	12/03/21	12/04/21	TJW
Pyrene	47	J	ug/Kg	50	11	5	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/04/21	TJW
Chrysene	30	J	ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	20	J	ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	24	J	ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	72%		%REC	27-125		5	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	72%		%REC	30-120		5	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	85%		%REC	33-155		5	279158	12/03/21	12/04/21	TJW



Sample ID: B16-3 Lab ID: 454317-002 Collected: 11/30/21 08:32

Matrix: Soil

454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.5	1.3	0.83	279144	12/02/21	12/06/21	KLN
Arsenic	2.3		mg/Kg	0.83	0.56	0.83	279144	12/02/21	12/06/21	KLN
Barium	67		mg/Kg	0.83	0.083	0.83	279144	12/02/21	12/06/21	KLN
Beryllium	0.15	J	mg/Kg	0.42	0.092	0.83	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.42	0.063	0.83	279144	12/02/21	12/06/21	KLN
Chromium	32		mg/Kg	0.83	0.18	0.83	279144	12/02/21	12/06/21	KLN
Cobalt	5.3		mg/Kg	0.42	0.057	0.83	279144	12/02/21	12/06/21	KLN
Copper	8.3		mg/Kg	0.83	0.50	0.83	279144	12/02/21	12/03/21	KLN
Lead	6.9		mg/Kg	0.83	0.70	0.83	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	0.83	0.49	0.83	279144	12/02/21	12/06/21	KLN
Nickel	27		mg/Kg	0.83	0.22	0.83	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.5	0.33	0.83	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.42	0.13	0.83	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.5	0.48	0.83	279144	12/02/21	12/06/21	KLN
Vanadium	24		mg/Kg	0.83	0.36	0.83	279144	12/02/21	12/03/21	KLN
Zinc	26		mg/Kg	4.2	0.63	0.83	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B Prep Method: EPA 5030B	ND		mg/Kg	0.17	0.047	1.2	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		malla	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates	ND		mg/Kg	Limits	0.24	'	2/9/3/	12/02/21	12/02/21	LIVIVV
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	0078		7611LO	00-140			273137	12/02/21	12/02/21	LIVIVV
DRO C10-C28	3.0	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.6	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	100%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW



454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	58%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND ND		ug/Kg	5.0	0.7	1 1	279153	12/02/21	12/02/21	RAO RAO
tert-Butyl Alcohol (TBA) Freon 12	ND		ug/Kg	5.0	8.8 0.4	1	279153 279153	12/02/21	12/02/21	RAO
Chloromethane	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	<u>'</u> 1	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Acetone	ND		ug/Kg	100	25	<u>·</u> 1	279153	12/02/21	12/02/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO



454317-002 Analyte	Result	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND	ug/Kg	10	8.0	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates			Limits						
Dibromofluoromethane	97%	%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	104%	%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	100%	%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	102%	%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND	ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Naphthalene	ND	ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND	ug/Kg	10	7.1	1	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND	ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Fluorene	ND	ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Phenanthrene	ND	ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Anthracene	ND	ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW



454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	2.5	J	ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Pyrene	3.0	J	ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.3	1	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	10	3.6	1	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	1	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	10	3.5	1	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	1	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	1	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	64%		%REC	27-125		1	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	63%		%REC	30-120		1	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	68%		%REC	33-155		1	279158	12/03/21	12/04/21	TJW



Sample ID: B16-5 Lab ID: 454317-003 Collected: 11/30/21 08:40

Matrix: Soil

454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.3	1.7	1.1	279144	12/02/21	12/06/21	KLN
Arsenic	2.4		mg/Kg	1.1	0.73	1.1	279144	12/02/21	12/06/21	KLN
Barium	57		mg/Kg	1.1	0.11	1.1	279144	12/02/21	12/06/21	KLN
Beryllium	0.22	J	mg/Kg	0.54	0.12	1.1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.54	0.082	1.1	279144	12/02/21	12/06/21	KLN
Chromium	40		mg/Kg	1.1	0.23	1.1	279144	12/02/21	12/06/21	KLN
Cobalt	5.5		mg/Kg	0.54	0.074	1.1	279144	12/02/21	12/06/21	KLN
Copper	7.9		mg/Kg	1.1	0.65	1.1	279144	12/02/21	12/03/21	KLN
Lead	3.0		mg/Kg	1.1	0.91	1.1	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	1.1	0.64	1.1	279144	12/02/21	12/06/21	KLN
Nickel	37		mg/Kg	1.1	0.28	1.1	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.3	0.43	1.1	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.54	0.17	1.1	279144	12/02/21	12/03/21	KLN
Thallium	0.76	J	mg/Kg	3.3	0.63	1.1	279144	12/02/21	12/06/21	KLN
Vanadium	33		mg/Kg	1.1	0.47	1.1	279144	12/02/21	12/03/21	KLN
Zinc	24		mg/Kg	5.4	0.82	1.1	279144	12/02/21	12/06/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prep Method: EPA 5030B	ND		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates	110		mg/rtg	Limits	0.24		273107	12/02/21	12/02/21	LIVIVV
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	4.5	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	97%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16		279164	12/03/21	12/04/21	TJW



454317-003 Analyte	Result Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND	ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits						
Decachlorobiphenyl (PCB)	62%	%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B									
Prep Method: EPA 5030B									
3-Chloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	1	279153	12/02/21	12/02/21	RAO
Freon 12	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Chloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Acetone	ND	ug/Kg	100	25	1	279153	12/02/21	12/02/21	RAO
Freon 113	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND	ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
MTBE	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND	ug/Kg	100	3.2	1	279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chloroform	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND	ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO



454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates				Limits						
Dibromofluoromethane	99%		%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.1	1	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Phenanthrene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW



454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Pyrene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.3	1	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	10	3.6	1	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	1	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	10	3.5	1	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	1	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	1	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	66%		%REC	27-125		1	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	63%		%REC	30-120		1	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	64%		%REC	33-155		1	279158	12/03/21	12/04/21	TJW



Sample ID: B17-1 Lab ID: 454317-004 Collected: 11/30/21 08:22

Matrix: Soil

454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B	-	-								
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/06/21	KLN
Arsenic	4.6		mg/Kg	1.0	0.70	1	279144	12/02/21	12/06/21	KLN
Barium	210		mg/Kg	1.0	0.10	1	279144	12/02/21	12/06/21	KLN
Beryllium	0.25	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/06/21	KLN
Chromium	42		mg/Kg	1.0	0.22	1	279144	12/02/21	12/06/21	KLN
Cobalt	7.8		mg/Kg	0.52	0.071	1	279144	12/02/21	12/06/21	KLN
Copper	24		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	17		mg/Kg	1.0	0.88	1	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/06/21	KLN
Nickel	48		mg/Kg	1.0	0.27	1	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	0.76	J	mg/Kg	3.1	0.60	1	279144	12/02/21	12/06/21	KLN
Vanadium	65		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	53		mg/Kg	5.2	0.78	1	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD Mercury	0.13	J	mg/Kg	0.15	0.042	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	26		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	77		mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	117%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	26	J	ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
	ND			ΕO	OF	1	070164	10/00/01	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	- 1	279164	12/03/21	12/04/21	1000



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454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	77%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	88%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene			".	40	40	1	070150	10/00/01	10/01/01	T 1147
	53		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW TJW



454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	71		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	74		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	28	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	40	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	28	J	ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	28	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	31	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	19	J	ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	22	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	74%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	73%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	83%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW



Sample ID: B17-3 Lab ID: 454317-005 Collected: 11/30/21 09:56

Matrix: Soil

454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.6	1	279144	12/02/21	12/06/21	KLN
Arsenic	4.7		mg/Kg	1.0	0.69	1	279144	12/02/21	12/06/21	KLN
Barium	200		mg/Kg	1.0	0.10	1	279144	12/02/21	12/06/21	KLN
Beryllium	0.26	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.077	1	279144	12/02/21	12/06/21	KLN
Chromium	45		mg/Kg	1.0	0.22	1	279144	12/02/21	12/06/21	KLN
Cobalt	8.6		mg/Kg	0.52	0.070	1	279144	12/02/21	12/06/21	KLN
Copper	23		mg/Kg	1.0	0.62	1	279144	12/02/21	12/03/21	KLN
Lead	19		mg/Kg	1.0	0.87	1	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/06/21	KLN
Nickel	56		mg/Kg	1.0	0.27	1	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.1	0.41	1	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.52	0.16	1	279144	12/02/21	12/03/21	KLN
Thallium	0.62	J	mg/Kg	3.1	0.60	1	279144	12/02/21	12/06/21	KLN
Vanadium	56		mg/Kg	1.0	0.44	1	279144	12/02/21	12/03/21	KLN
Zinc	57		mg/Kg	5.2	0.77	1	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B	0.33		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN
Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	32		mg/Kg	10	1.6	1	279190	12/03/21	12/08/21	MES
ORO C28-C44	47		mg/Kg	20	1.6	1	279190	12/03/21	12/08/21	MES
Surrogates				Limits						
n-Triacontane	89%		%REC	70-130		1	279190	12/03/21	12/08/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
			- 5 - 5							



		•	313 110	Suits	101 40	740				
454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	58%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-005 Analyte	Result (	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND	ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates			Limits						
Dibromofluoromethane	100%	%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%	%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	100%	%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%	%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND	ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND	ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	25	J ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW



454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	57		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	65		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	30	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	43		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	31	J	ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	30	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	34	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	19	J	ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	24	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	84%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	96%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW



Sample ID: B17-5 Lab ID: 454317-006 Collected: 11/30/21 10:03

454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD	NE					0.07	070444	10/00/01	40/00/04	171.51
Antimony	ND		mg/Kg	2.9	1.6	0.97	279144	12/02/21	12/06/21	KLN
Arsenic	3.8		mg/Kg	0.97	0.65	0.97	279144	12/02/21	12/06/21	KLN
Barium	170		mg/Kg	0.97	0.097	0.97	279144	12/02/21	12/06/21	KLN
Beryllium	0.30	J	mg/Kg	0.49	0.11	0.97	279144	12/02/21	12/03/21	KLN
Cadmium	0.077	J	mg/Kg	0.49	0.073	0.97	279144	12/02/21	12/06/21	KLN
Chromium	36		mg/Kg	0.97	0.20	0.97	279144	12/02/21	12/06/21	KLN
Cobalt	5.8		mg/Kg	0.49	0.066	0.97	279144	12/02/21	12/06/21	KLN
Copper	18		mg/Kg	0.97	0.58	0.97	279144	12/02/21	12/03/21	KLN
Lead	14		mg/Kg	0.97	0.82	0.97	279144	12/02/21	12/06/21	KLN
Molybdenum	1.0		mg/Kg	0.97	0.57	0.97	279144	12/02/21	12/06/21	KLN
Nickel	40		mg/Kg	0.97	0.25	0.97	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.9	0.39	0.97	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.49	0.16	0.97	279144	12/02/21	12/03/21	KLN
Thallium	0.80	J	mg/Kg	2.9	0.56	0.97	279144	12/02/21	12/06/21	KLN
Vanadium	46		mg/Kg	0.97	0.42	0.97	279144	12/02/21	12/03/21	KLN
Zinc	45		mg/Kg	4.9	0.73	0.97	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.062	J	mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M										
Prep Method: EPA 3580	0.7	1	//	10	0.4		070100	10/00/01	10/07/01	MEC
DRO C10-C28	2.7	J	mg/Kg	10	2.4	<u>1</u> 1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.4	B,J	mg/Kg	20	2.4	- 1	279190	12/03/21	12/07/21	MES
Surrogates n-Triacontane	101%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
	101/6		/onLU	70-130			2/9/90	12/03/21	12/01/21	IVILO
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW



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454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	63%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone From 112	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113 1,1-Dichloroethene	ND ND		ug/Kg	5.0	0.7	1 1	279153 279153	12/03/21 12/03/21	12/03/21	RAO RAO
Methylene Chloride	ND		ug/Kg ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	<u>·</u>	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	87%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	40	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	16	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW



454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	19	J	ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	22	J	ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	80%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	85%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW



Sample ID: B18-1 Lab ID: 454317-007 Collected: 11/30/21 09:40

454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B			-							
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.0	1.6	0.99	279144	12/02/21	12/06/21	KLN
Arsenic	4.5		mg/Kg	0.99	0.66	0.99	279144	12/02/21	12/06/21	KLN
Barium	170		mg/Kg	0.99	0.099	0.99	279144	12/02/21	12/06/21	KLN
Beryllium	0.27	J	mg/Kg	0.50	0.11	0.99	279144	12/02/21	12/03/21	KLN
Cadmium	0.095	J	mg/Kg	0.50	0.074	0.99	279144	12/02/21	12/06/21	KLN
Chromium	38		mg/Kg	0.99	0.21	0.99	279144	12/02/21	12/06/21	KLN
Cobalt	6.2		mg/Kg	0.50	0.067	0.99	279144	12/02/21	12/06/21	KLN
Copper	22		mg/Kg	0.99	0.59	0.99	279144	12/02/21	12/03/21	KLN
Lead	19		mg/Kg	0.99	0.83	0.99	279144	12/02/21	12/06/21	KLN
Molybdenum	0.68	J	mg/Kg	0.99	0.58	0.99	279144	12/02/21	12/06/21	KLN
Nickel	42		mg/Kg	0.99	0.26	0.99	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.0	0.40	0.99	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.50	0.16	0.99	279144	12/02/21	12/03/21	KLN
Thallium	0.80	J	mg/Kg	3.0	0.57	0.99	279144	12/02/21	12/06/21	KLN
Vanadium	47		mg/Kg	0.99	0.43	0.99	279144	12/02/21	12/03/21	KLN
Zinc	47		mg/Kg	5.0	0.74	0.99	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD Mercury	0.10	J	mg/Kg	0.14	0.040	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	17		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	21	В	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	110%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ua/Ka	50	6.1	1	279164	12/03/21	12/04/21	IJW
Aroclor-1254 Aroclor-1260	ND ND		ug/Kg ug/Kg	50 50	6.1 25	1 1	279164 279164	12/03/21	12/04/21	TJW TJW



454317-007 Analyte	Result C	ual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND	ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits						
Decachlorobiphenyl (PCB)	57%	%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B									
Prep Method: EPA 5030B									
3-Chloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND	ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND	ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND	ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	92%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	14	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW



454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	54		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	56		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	20	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	29	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	19	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	24	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	16	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	81%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	80%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	89%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW



Sample ID: B18-3 Lab ID: 454317-008 Collected: 11/30/21 09:53

454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.3	1.8	1.1	279144	12/02/21	12/03/21	KLN
Arsenic	2.0		mg/Kg	1.1	0.74	1.1	279144	12/02/21	12/03/21	KLN
Barium	48		mg/Kg	1.1	0.11	1.1	279144	12/02/21	12/03/21	KLN
Beryllium	ND		mg/Kg	0.55	0.12	1.1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.55	0.082	1.1	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	1.1	0.23	1.1	279144	12/02/21	12/03/21	KLN
Cobalt	4.0		mg/Kg	0.55	0.075	1.1	279144	12/02/21	12/03/21	KLN
Copper	6.4		mg/Kg	1.1	0.66	1.1	279144	12/02/21	12/03/21	KLN
Lead	2.2		mg/Kg	1.1	0.92	1.1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.1	0.65	1.1	279144	12/02/21	12/03/21	KLN
Nickel	23		mg/Kg	1.1	0.29	1.1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.3	0.44	1.1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.55	0.18	1.1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.3	0.64	1.1	279144	12/02/21	12/03/21	KLN
Vanadium	22		mg/Kg	1.1	0.47	1.1	279144	12/02/21	12/03/21	KLN
Zinc	16		mg/Kg	5.5	0.82	1.1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury	ND		mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	87%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	4.7	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	103%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW



454317-008 Analyte	Result Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND	ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits						
Decachlorobiphenyl (PCB)	61%	%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND	ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND	ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND	ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	100%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	101%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	100%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
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454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	20	4.9	2	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.5	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	7.0	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.7	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.3	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	70%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	90%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW



Sample ID: B18-5 Lab ID: 454317-009 Collected: 11/30/21 10:08

454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/03/21	KLN
Arsenic	3.0		mg/Kg	1.0	0.70	1	279144	12/02/21	12/03/21	KLN
Barium	56		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.36	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/03/21	KLN
Chromium	45		mg/Kg	1.0	0.22	1	279144	12/02/21	12/03/21	KLN
Cobalt	6.9		mg/Kg	0.52	0.071	1	279144	12/02/21	12/03/21	KLN
Copper	8.0		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	3.4		mg/Kg	1.0	0.88	1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Nickel	36		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.60	1	279144	12/02/21	12/03/21	KLN
Vanadium	38		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	19		mg/Kg	5.2	0.78	1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD Mercury	ND		mg/Kg	0.16	0.046	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	4.6	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	93%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW



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454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	58%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	101%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
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454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	20	4.9	2	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.5	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	7.0	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.7	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.3	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	72%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	78%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	108%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW



Sample ID: B22-1 Lab ID: 454317-019 Collected: 11/30/21 13:56

454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/03/21	KLN
Arsenic	4.4		mg/Kg	1.0	0.70	1	279144	12/02/21	12/03/21	KLN
Barium	210		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.29	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/03/21	KLN
Chromium	46		mg/Kg	1.0	0.22	1	279144	12/02/21	12/03/21	KLN
Cobalt	7.5		mg/Kg	0.52	0.071	1	279144	12/02/21	12/03/21	KLN
Copper	23		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	15		mg/Kg	1.0	0.88	1	279144	12/02/21	12/03/21	KLN
Molybdenum	0.87	J	mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Nickel	57		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.60	1	279144	12/02/21	12/03/21	KLN
Vanadium	62		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	54		mg/Kg	5.2	0.78	1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury	ND		mg/Kg	0.16	0.045	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	21	В	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	114%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW



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454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	63%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	85%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	50	10	5	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	50	36	5	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Phenanthrene	21	J	ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW



454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	42	J	ug/Kg	50	12	5	279158	12/03/21	12/06/21	TJW
Pyrene	44	J	ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Chrysene	25	J	ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	14	J	ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	73%		%REC	27-125		5	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	78%		%REC	30-120		5	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	115%		%REC	33-155		5	279158	12/03/21	12/06/21	TJW



Sample ID: B22-3 Lab ID: 454317-020 Collected: 11/30/21 14:01

454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.7	1.5	0.91	279144	12/02/21	12/03/21	KLN
Arsenic	3.5		mg/Kg	0.91	0.61	0.91	279144	12/02/21	12/03/21	KLN
Barium	170		mg/Kg	0.91	0.091	0.91	279144	12/02/21	12/03/21	KLN
Beryllium	0.25	J	mg/Kg	0.45	0.10	0.91	279144	12/02/21	12/03/21	KLN
Cadmium	0.075	J	mg/Kg	0.45	0.068	0.91	279144	12/02/21	12/03/21	KLN
Chromium	39		mg/Kg	0.91	0.19	0.91	279144	12/02/21	12/03/21	KLN
Cobalt	5.8		mg/Kg	0.45	0.062	0.91	279144	12/02/21	12/03/21	KLN
Copper	18		mg/Kg	0.91	0.55	0.91	279144	12/02/21	12/03/21	KLN
Lead	11		mg/Kg	0.91	0.76	0.91	279144	12/02/21	12/03/21	KLN
Molybdenum	0.79	J	mg/Kg	0.91	0.54	0.91	279144	12/02/21	12/03/21	KLN
Nickel	50		mg/Kg	0.91	0.24	0.91	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.7	0.36	0.91	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.15	0.91	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.53	0.91	279144	12/02/21	12/03/21	KLN
Vanadium	54		mg/Kg	0.91	0.39	0.91	279144	12/02/21	12/03/21	KLN
Zinc	42		mg/Kg	4.5	0.68	0.91	279144	12/02/21	12/03/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prep Method: EPA 5030B	ND		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates	IND		mg/rtg	Limits	0.21		270100	12/00/21	12/00/21	LIVIVV
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	3070									
DRO C10-C28	11		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	17	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	108%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
			".				070404	10/00/01	10/01/01	T 11A/
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW



454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	54%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride Bromomethane	ND ND		ug/Kg ug/Kg	5.0	0.4	1 1	279153 279153	12/03/21	12/03/21	RAO RAO
Chloroethane	ND		ug/Kg ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	26	J	ug/Kg ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND	<u> </u>	ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
MTBE	ND ND		ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND ND		ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	<u>·</u> 1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	<u>·</u> 1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	<u>·</u> 1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	84%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	105%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	27	J	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW



454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	46		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	50		ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	18	J	ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	26	J	ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	18	J	ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	19	J	ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	71%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	76%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	116%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW



Sample ID: B22-3D Lab ID: 454317-021 Collected: 11/30/21 14:01

454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.6	1.4	0.88	279144	12/02/21	12/03/21	KLN
Arsenic	3.6		mg/Kg	0.88	0.59	0.88	279144	12/02/21	12/03/21	KLN
Barium	150		mg/Kg	0.88	0.088	0.88	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.44	0.096	0.88	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.44	0.066	0.88	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	0.88	0.18	0.88	279144	12/02/21	12/03/21	KLN
Cobalt	5.5		mg/Kg	0.44	0.060	0.88	279144	12/02/21	12/03/21	KLN
Copper	17		mg/Kg	0.88	0.53	0.88	279144	12/02/21	12/03/21	KLN
Lead	11		mg/Kg	0.88	0.74	0.88	279144	12/02/21	12/03/21	KLN
Molybdenum	0.74	J	mg/Kg	0.88	0.52	0.88	279144	12/02/21	12/03/21	KLN
Nickel	42		mg/Kg	0.88	0.23	0.88	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.6	0.35	0.88	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.44	0.14	0.88	279144	12/02/21	12/03/21	KLN
Thallium	0.78	J	mg/Kg	2.6	0.51	0.88	279144	12/02/21	12/03/21	KLN
Vanadium	49		mg/Kg	0.88	0.38	0.88	279144	12/02/21	12/03/21	KLN
Zinc	40		mg/Kg	4.4	0.66	0.88	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD	NE						070000	10/00/04	10/00/01	<b>T</b> 1 1 1 1
Mercury	ND		mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	9.8	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	16	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	107%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
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454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	60%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND ND		ug/Kg	5.0	0.4	1 1	279153 279153	12/03/21	12/03/21	RAO
Bromomethane Chloroethane	ND		ug/Kg ug/Kg	5.0 5.0	0.3	1	279153	12/03/21	12/03/21	RAO RAO
Trichlorofluoromethane	ND		ug/Kg ug/Kg	5.0	0.3	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
Acetone	26	J	ug/Kg ug/Kg	100	25	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
Freon 113	ND	J	ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.7	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	<u>·</u> 1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO



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454317-021 Analyte	Result	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND	ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	<u>·</u>	279153	12/03/21	12/03/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	<u>·</u> 1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	<u>.</u> 1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
	ND		5.0	0.4	<u>'</u> 1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane		ug/Kg							
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates		3 3	Limits						
Dibromofluoromethane	83%	%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%	%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%	%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	100%	%REC	70-145	1.5	<u>.</u> 1	279153	12/03/21	12/03/21	RAO
	10070	701120	70 140	1.0		273130	12/00/21	12/00/21	11/10
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	200	41	20	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND	ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Naphthalene	ND	ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND	ug/Kg	200	140	20	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND	ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW
Fluorene	ND	ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND	ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Anthracene	ND	ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW



454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	200	49	20	279158	12/03/21	12/06/21	TJW
Pyrene	50	J	ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	200	85	20	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	200	72	20	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	200	110	20	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	200	70	20	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	200	81	20	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	200	87	20	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	76%		%REC	27-125		20	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	82%		%REC	30-120		20	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	119%		%REC	33-155		20	279158	12/03/21	12/06/21	TJW



Sample ID: B22-5 Lab ID: 454317-022 Collected: 11/30/21 14:09

454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.5	1.3	0.83	279144	12/02/21	12/03/21	KLN
Arsenic	6.0		mg/Kg	0.83	0.56	0.83	279144	12/02/21	12/03/21	KLN
Barium	150		mg/Kg	0.83	0.083	0.83	279144	12/02/21	12/03/21	KLN
Beryllium	0.22	J	mg/Kg	0.42	0.092	0.83	279144	12/02/21	12/03/21	KLN
Cadmium	0.19	J	mg/Kg	0.42	0.063	0.83	279144	12/02/21	12/03/21	KLN
Chromium	39		mg/Kg	0.83	0.18	0.83	279144	12/02/21	12/03/21	KLN
Cobalt	6.6		mg/Kg	0.42	0.057	0.83	279144	12/02/21	12/03/21	KLN
Copper	21		mg/Kg	0.83	0.50	0.83	279144	12/02/21	12/03/21	KLN
Lead	20		mg/Kg	0.83	0.70	0.83	279144	12/02/21	12/03/21	KLN
Molybdenum	0.63	J	mg/Kg	0.83	0.49	0.83	279144	12/02/21	12/03/21	KLN
Nickel	37		mg/Kg	0.83	0.22	0.83	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.5	0.33	0.83	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.42	0.13	0.83	279144	12/02/21	12/03/21	KLN
Thallium	0.52	J	mg/Kg	2.5	0.48	0.83	279144	12/02/21	12/03/21	KLN
Vanadium	42		mg/Kg	0.83	0.36	0.83	279144	12/02/21	12/03/21	KLN
Zinc	440		mg/Kg	4.2	0.63	0.83	279144	12/02/21	12/03/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prep Method: EPA 5030B	0.17		mg/Kg	0.16	0.044	1.1	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		malla	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates	ואט		mg/Kg	Limits	0.24	'	2/9130	12/00/21	12/00/21	LIVIVV
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	0078		7611LO	00-140			273130	12/00/21	12/00/21	LIVIVV
DRO C10-C28	6.9	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	11	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	104%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
A 1 1000	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Ng	50	25		2/3/04	12/03/21	12/04/21	1044



454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	64%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Butanone	3.4	J	ug/Kg	100	3.2	1	279229	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO



454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279229	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	60%	*	%REC	70-145	1.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	95%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Bromofluorobenzene	108%		%REC	70-145	1.5	1	279229	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.0	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	12	J	ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW



454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	10	J	ug/Kg	20	4.8	2	279158	12/03/21	12/06/21	TJW
Pyrene	11	J	ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.4	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.1	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	6.9	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.6	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	59%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	61%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	76%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW



Sample ID: B25-1 Lab ID: 454317-023 Collected: 11/30/21 14:28

454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.9	1.5	0.96	279144	12/02/21	12/03/21	KLN
Arsenic	4.3		mg/Kg	0.96	0.64	0.96	279144	12/02/21	12/03/21	KLN
Barium	200		mg/Kg	0.96	0.096	0.96	279144	12/02/21	12/03/21	KLN
Beryllium	0.28	J	mg/Kg	0.48	0.11	0.96	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.48	0.072	0.96	279144	12/02/21	12/03/21	KLN
Chromium	38		mg/Kg	0.96	0.20	0.96	279144	12/02/21	12/03/21	KLN
Cobalt	7.2		mg/Kg	0.48	0.065	0.96	279144	12/02/21	12/03/21	KLN
Copper	22		mg/Kg	0.96	0.58	0.96	279144	12/02/21	12/03/21	KLN
Lead	14		mg/Kg	0.96	0.81	0.96	279144	12/02/21	12/03/21	KLN
Molybdenum	0.60	J	mg/Kg	0.96	0.57	0.96	279144	12/02/21	12/03/21	KLN
Nickel	51		mg/Kg	0.96	0.25	0.96	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.9	0.38	0.96	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.48	0.15	0.96	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.9	0.56	0.96	279144	12/02/21	12/03/21	KLN
Vanadium	61		mg/Kg	0.96	0.41	0.96	279144	12/02/21	12/03/21	KLN
Zinc	51		mg/Kg	4.8	0.72	0.96	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B	0.058	J	mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	19	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	108%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
			ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		0 0				070404	10/00/01		TJW
Aroclor-1221 Aroclor-1232	ND ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	1000
				50 50	16 14	1 1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg							
Aroclor-1232 Aroclor-1242	ND ND		ug/Kg ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232 Aroclor-1242 Aroclor-1248	ND ND ND		ug/Kg ug/Kg ug/Kg	50 50	14 4.3	1	279164 279164	12/03/21 12/03/21	12/04/21 12/04/21	TJW



454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	64%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Vinyl Chloride	ND ND		ug/Kg	5.0	0.4	1 1	279229	12/03/21	12/03/21	RAO
Bromomethane Chloroethane	ND		ug/Kg	5.0 5.0	0.3	1	279229 279229	12/03/21	12/03/21	RAO RAO
Trichlorofluoromethane	ND		ug/Kg ug/Kg	5.0	0.3	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg ug/Kg	100	25	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Methylene Chloride	ND			5.0	0.2	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg ug/Kg	5.0	0.7	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg ug/Kg	5.0	0.6	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg ug/Kg	5.0	0.6	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND				1.9	1	279229		12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg ug/Kg	5.0	0.3	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg ug/Kg	5.0	0.5	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg ug/Kg	5.0	0.6	<u>'</u> 1	279229	12/03/21	12/03/21	RAO
renacinordeniene	טויו		ug/Ng	5.0	0.0	ı	L13223	12/03/21	12/03/21	паО



454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279229	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	82%		%REC	70-145	1.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	94%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279229	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	100	71	10	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW



454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	46	J	ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Pyrene	47	J	ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	100	43	10	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	100	36	10	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	100	54	10	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	100	35	10	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	100	41	10	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	100	44	10	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	100	37	10	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	82%		%REC	27-125		10	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	83%		%REC	30-120		10	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	116%		%REC	33-155		10	279158	12/03/21	12/06/21	TJW



Sample ID: B25-3 Lab ID: 454317-024 Collected: 11/30/21 14:32

Matrix: Soil

	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.7	1.4	0.89	279144	12/02/21	12/03/21	KLN
Arsenic	3.5		mg/Kg	0.89	0.60	0.89	279144	12/02/21	12/03/21	KLN
Barium	190		mg/Kg	0.89	0.089	0.89	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.45	0.098	0.89	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.45	0.067	0.89	279144	12/02/21	12/03/21	KLN
Chromium	41		mg/Kg	0.89	0.19	0.89	279144	12/02/21	12/03/21	KLN
Cobalt	6.9		mg/Kg	0.45	0.061	0.89	279144	12/02/21	12/03/21	KLN
Copper	26		mg/Kg	0.89	0.54	0.89	279144	12/02/21	12/03/21	KLN
Lead	15		mg/Kg	0.89	0.75	0.89	279144	12/02/21	12/03/21	KLN
Molybdenum	0.76	J	mg/Kg	0.89	0.53	0.89	279144	12/02/21	12/03/21	KLN
Nickel	47		mg/Kg	0.89	0.23	0.89	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.7	0.36	0.89	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.14	0.89	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.52	0.89	279144	12/02/21	12/03/21	KLN
Vanadium	59		mg/Kg	0.89	0.38	0.89	279144	12/02/21	12/03/21	KLN
Zinc	49		mg/Kg	4.5	0.67	0.89	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury Method: EPA 8015B	0.083	J	mg/Kg	0.14	0.040	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B		J								
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline	<b>0.083</b>	J	mg/Kg	3.0	0.040	1	279206 279137	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline Surrogates	ND	J	mg/Kg	3.0 Limits			279137	12/03/21	12/03/21	EMW
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline		J		3.0						
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline Surrogates	ND	J	mg/Kg	3.0 Limits		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M	ND	J	mg/Kg	3.0 Limits		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline Surrogates Bromofluorobenzene (FID) Method: EPA 8015M Prep Method: EPA 3580	ND 88%		mg/Kg %REC	3.0 <b>Limits</b> 60-140	0.24	1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28	ND 88%	J	mg/Kg %REC	3.0 <b>Limits</b> 60-140	0.24	1 1	279137 279137 279190	12/03/21 12/03/21	12/03/21 12/03/21	EMW EMW MES
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44	ND 88%	J	mg/Kg %REC	3.0 <b>Limits</b> 60-140 10 20	0.24	1 1	279137 279137 279190	12/03/21 12/03/21	12/03/21 12/03/21	EMW EMW
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline  Surrogates Bromofluorobenzene (FID) Method: EPA 8015M Prep Method: EPA 3580 DRO C10-C28 ORO C28-C44  Surrogates n-Triacontane  Method: EPA 8082	88% 9.9	J	mg/Kg %REC mg/Kg mg/Kg	3.0 Limits 60-140 10 20 Limits	0.24	1 1 1 1	279137 279137 279190 279190	12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21	EMW EMW MES MES
Method: EPA 8015B Prep Method: EPA 5030B TPH Gasoline  Surrogates Bromofluorobenzene (FID) Method: EPA 8015M Prep Method: EPA 3580 DRO C10-C28 ORO C28-C44  Surrogates n-Triacontane  Method: EPA 8082	88% 9.9	J	mg/Kg %REC mg/Kg mg/Kg	3.0 Limits 60-140 10 20 Limits	0.24	1 1 1 1	279137 279137 279190 279190	12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21	EMW EMW MES MES
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546	ND 88% 9.9 14	J	mg/Kg %REC mg/Kg mg/Kg	3.0 Limits 60-140  10 20 Limits 70-130	0.24 2.4 2.4	1 1 1 1	279137 279137 279190 279190 279190	12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21	EMW  EMW  MES  MES
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016	ND 88% 9.9 14	J	mg/Kg %REC mg/Kg mg/Kg ug/Kg	3.0 Limits 60-140 10 20 Limits 70-130	2.4 2.4 2.4	1 1 1 1	279137 279137 279190 279190 279190	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21	EMW  EMW  MES  MES  TJW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221	9.9 14 109%	J	mg/Kg %REC mg/Kg mg/Kg ug/Kg	3.0 Limits 60-140  10 20 Limits 70-130	2.4 2.4 2.4	1 1 1 1 1 1 1	279137 279137 279190 279190 279190 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21 12/04/21 12/04/21	EMW  MES  MES  TJW  TJW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221  Aroclor-1232	9.9 14 109% ND ND	J	mg/Kg %REC mg/Kg mg/Kg ug/Kg ug/Kg	3.0 Limits 60-140 10 20 Limits 70-130 50 50	2.4 2.4 2.4 18 14 16	1 1 1 1 1 1 1	279137 279137 279190 279190 279190 279164 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21 12/04/21 12/04/21 12/04/21	EMW  EMW  MES  MES  TJW  TJW  TJW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221  Aroclor-1232  Aroclor-1242	9.9 14 109% ND ND ND ND	J	mg/Kg %REC mg/Kg mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	3.0 Limits 60-140 10 20 Limits 70-130 50 50 50	2.4 2.4 2.4 18 14 16 14	1 1 1 1 1 1 1 1	279137 279137 279190 279190 279190 279164 279164 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21 12/04/21 12/04/21 12/04/21 12/04/21	EMW  EMW  MES  MES  TJW  TJW  TJW
Method: EPA 8015B Prep Method: EPA 5030B  TPH Gasoline  Surrogates  Bromofluorobenzene (FID)  Method: EPA 8015M Prep Method: EPA 3580  DRO C10-C28  ORO C28-C44  Surrogates  n-Triacontane  Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221  Aroclor-1232  Aroclor-1248	ND 88% 9.9 14 109% ND ND ND ND ND	J	mg/Kg %REC mg/Kg mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg	3.0 Limits 60-140  10 20 Limits 70-130  50 50 50 50	0.24 2.4 2.4 18 14 16 14 4.3	1 1 1 1 1 1 1 1	279137 279137 279190 279190 279190 279164 279164 279164 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/03/21 12/03/21 12/07/21 12/07/21 12/07/21 12/04/21 12/04/21 12/04/21 12/04/21 12/04/21	EMW  MES  MES  TJW  TJW  TJW  TJW  TJW



454317-024 Analyte	Result (	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND	ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits						
Decachlorobiphenyl (PCB)	117%	%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B									
Prep Method: EPA 5030B									
3-Chloropropene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND	ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND	ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND	ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-024 Analyte	Result	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND	ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates			Limits						
Dibromofluoromethane	78%	%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	94%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	102%	%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	200	41	20	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND	ug/Kg	200	64	20	279158	12/03/21	12/06/21	TJW
Naphthalene	ND	ug/Kg	200	64	20	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND	ug/Kg	200	140	20	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND	ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW
Fluorene	ND	ug/Kg	200	43	20	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND	ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Anthracene	ND	ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW



454317-024 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	63	J	ug/Kg	200	49	20	279158	12/03/21	12/06/21	TJW
Pyrene	62	J	ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	200	85	20	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	200	110	20	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	200	70	20	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	200	82	20	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	200	88	20	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	84%		%REC	27-125		20	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	85%		%REC	30-120		20	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	118%		%REC	33-155		20	279158	12/03/21	12/06/21	TJW



Sample ID: B25-5 Lab ID: 454317-025 Collected: 11/30/21 14:36

Matrix: Soil

454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	ND		mg/Kg	2.6	1.4	0.88	279144	12/02/21	12/03/21	KLN
Arsenic	2.4		mg/Kg	0.88	0.59	0.88	279144	12/02/21	12/03/21	KLN
Barium	120		mg/Kg	0.88	0.088	0.88	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.44	0.096	0.88	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.44	0.066	0.88	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	0.88	0.18	0.88	279144	12/02/21	12/03/21	KLN
Cobalt	6.8		mg/Kg	0.44	0.060	0.88	279144	12/02/21	12/03/21	KLN
Copper	17		mg/Kg	0.88	0.53	0.88	279144	12/02/21	12/03/21	KLN
Lead	18		mg/Kg	0.88	0.74	0.88	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.88	0.52	0.88	279144	12/02/21	12/03/21	KLN
Nickel	28		mg/Kg	0.88	0.23	0.88	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.6	0.35	0.88	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.44	0.14	88.0	279144	12/02/21	12/03/21	KLN
Thallium	0.55	J	mg/Kg	2.6	0.51	0.88	279144	12/02/21	12/03/21	KLN
Vanadium	46		mg/Kg	0.88	0.38	0.88	279144	12/02/21	12/03/21	KLN
Zinc	37		mg/Kg	4.4	0.66	0.88	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury	5.5		mg/Kg	1.6	0.45	12	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates				Limits						
Bromofluorobenzene (FID)	75%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	3.1	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.7	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	101%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	שווו		ug/itg							
Aroclor-1248 Aroclor-1254	ND			50	6.1	1	279164	12/03/21	12/04/21	TJW
			ug/Kg ug/Kg			1	279164 279164	12/03/21 12/03/21	12/04/21 12/04/21	TJW



454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	60%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	0.3	J	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	79%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	94%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	12	J	ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	21	J	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	120		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW



454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	71%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	92%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW



Sample ID: B27-1 Lab ID: 454317-026 Collected: 11/30/21 14:58

Matrix: Soil

454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	1.7	J	mg/Kg	2.7	1.4	0.9	279144	12/02/21	12/03/21	KLN
Arsenic	2.2		mg/Kg	0.90	0.60	0.9	279144	12/02/21	12/03/21	KLN
Barium	110		mg/Kg	0.90	0.090	0.9	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.45	0.099	0.9	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.45	0.068	0.9	279144	12/02/21	12/03/21	KLN
Chromium	29		mg/Kg	0.90	0.19	0.9	279144	12/02/21	12/03/21	KLN
Cobalt	12		mg/Kg	0.45	0.061	0.9	279144	12/02/21	12/03/21	KLN
Copper	23		mg/Kg	0.90	0.54	0.9	279144	12/02/21	12/03/21	KLN
Lead	10		mg/Kg	0.90	0.76	0.9	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.90	0.53	0.9	279144	12/02/21	12/03/21	KLN
Nickel	32		mg/Kg	0.90	0.23	0.9	279144	12/02/21	12/03/21	KLN
Selenium	0.66	J	mg/Kg	2.7	0.36	0.9	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.14	0.9	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.52	0.9	279144	12/02/21	12/03/21	KLN
Vanadium	77		mg/Kg	0.90	0.39	0.9	279144	12/02/21	12/03/21	KLN
Zinc	53		mg/Kg	4.5	0.68	0.9	279144	12/02/21	12/03/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prep Method: EPA 5030B	1.1		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates	110		mg/rtg	Limits	0.24		273107	12/00/21	12/00/21	LIVIV
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	0070		701120	00 110		<u>'</u>	270107	12/00/21	12/00/21	LIVIV
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	85		mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	116%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW



454317-026 Analyte	Result Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND	ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits						
Decachlorobiphenyl (PCB)	59%	%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND	ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND	ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND	ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	92%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	96%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	99%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	106%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Naphthalene	4.2	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	10	2.2	1	279158	12/03/21	12/06/21	TJW
Phenanthrene	9.5	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	10	2.6	1	279158	12/03/21	12/06/21	TJW
<del></del>										



454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	17		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Pyrene	18		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	8.2	J	ug/Kg	10	4.3	1	279158	12/03/21	12/06/21	TJW
Chrysene	12		ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	11		ug/Kg	10	5.4	1	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	11		ug/Kg	10	2.6	1	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	15		ug/Kg	10	3.5	1	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	12		ug/Kg	10	4.1	1	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	12		ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		1	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	70%		%REC	30-120		1	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	98%		%REC	33-155		1	279158	12/03/21	12/06/21	TJW



Sample ID: B27-1D Lab ID: 454317-027 Collected: 11/30/21 14:58

Matrix: Soil

454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	1.5	J	mg/Kg	2.8	1.5	0.93	279144	12/02/21	12/03/21	KLN
Arsenic	1.9		mg/Kg	0.93	0.62	0.93	279144	12/02/21	12/03/21	KLN
Barium	94		mg/Kg	0.93	0.093	0.93	279144	12/02/21	12/03/21	KLN
Beryllium	0.21	J	mg/Kg	0.46	0.10	0.93	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.46	0.069	0.93	279144	12/02/21	12/03/21	KLN
Chromium	40		mg/Kg	0.93	0.19	0.93	279144	12/02/21	12/03/21	KLN
Cobalt	13		mg/Kg	0.46	0.063	0.93	279144	12/02/21	12/03/21	KLN
Copper	28		mg/Kg	0.93	0.56	0.93	279144	12/02/21	12/03/21	KLN
Lead	12		mg/Kg	0.93	0.78	0.93	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.93	0.55	0.93	279144	12/02/21	12/03/21	KLN
Nickel	29		mg/Kg	0.93	0.24	0.93	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.8	0.37	0.93	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.46	0.15	0.93	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.8	0.54	0.93	279144	12/02/21	12/03/21	KLN
Vanadium	85		mg/Kg	0.93	0.40	0.93	279144	12/02/21	12/03/21	KLN
Zinc	49		mg/Kg	4.6	0.69	0.93	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD  Mercury  Method: EPA 8015B	1.2		mg/Kg	0.16	0.044	1.1	279206	12/03/21	12/03/21	TNN
Prep Method: EPA 5030B	ND		0.4		0.04		070407	10/00/01	10/00/01	E1414/
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates	000/		0/ DE0	Limits			070107	10/00/01	10/00/01	E14144
Bromofluorobenzene (FID)  Method: EPA 8015M  Prep Method: EPA 3580	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
DRO C10-C28	5.7	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	9.8	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates				Limits						
n-Triacontane	104%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
A100101-1200			9,9							



Surrogates	454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Decachlorobiphenyl (PCB)	Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Method: EPA 8360B   Prep Method: EPA 5030B   September   Prep Method: EPA 5030B   September   Prep Method: EPA 5030B   September   ND	Surrogates				Limits						
Prep Method: EPA 50308	Decachlorobiphenyl (PCB)	60%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
3-Chloropropene											
cis-1.4-Dichloro-2-butene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-I.4-Dichloro-2-butene         ND         ug/Kg         5.0         0.9         1         279229         12/04/21         12/04/21         RAO           Isopropyl Ether (IPE)         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Eithyl tert-Butyl Ether (TAME)         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           Methyl tert-Amyl Ether (TAME)         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Eer-Butyl Alcohol (TBA)         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Chlororethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Chlororethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/0											
trans-1,4-Dichloro-2-butene         ND         ug/Kg         5.0         0.9         1         279229         12/04/21         12/04/21         RAO           Isopropyl Ether (DIPE)         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Ethyl terh-Buyl Ether (TRME)         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           Methyl terh-Amyl Ether (TAME)         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           Ern-Buyl Alcohol (TBA)         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Chloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Viryl Chloride         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Chloromethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21											
Isopropyl Ether (DIPE)											
Ethyl tert-Butyl Ether (ETBE)	·										
Methyl tert-Amyl Ether (TAME)							-				
tert-Butyl Alcohol (TBA)											
Freon 12							-				
Chloromethane         ND         ug/kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Winyl Chloride         ND         ug/kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Bromomethane         ND         ug/kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Chloroethane         ND         ug/kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Trichlorofluoromethane         ND         ug/kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Acetone         ND         ug/kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           MTBE         ND         ug/kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethene </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>							-				
Vinyl Chloride         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Bromomethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         12/04/21         RAO           Chloroethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Trichlorothuromethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Acetone         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           Freon 113         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           MTSE         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO											
Bromomethane   ND											
Chloroethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Trichlorofluoromethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Acetone         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Freon 113         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           MERIDIOR         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           MERIDIOROERIME         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2,2-Dichloroe	· · · · · · · · · · · · · · · · · · ·						-				
Trichlorofluoromethane         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Acetone         ND         ug/Kg         100         25         1         279229         12/04/21         12/04/21         RAO           Freon 113         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           MTBE         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO											
Acetone         ND         ug/Kg         100         25         1         279229         12/04/21         12/04/21         RAO           Freon 113         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Methylene Chloride         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           MEE         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Chloroform <td></td>											
Freon 113         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Methylene Chloride         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           MTBE         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           2,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO											
1,1-Dichloroethene											
Methylene Chloride         ND         ug/Kg         5.0         0.7         1         279229         12/04/21         12/04/21         RAO           MTBE         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Chloroform         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO											
MTBE         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           2,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         RAO           1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         RAO           1,2-Dichloropropene         ND         ug/K											
trans-1,2-Dichloroethene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         100         3.2         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           2,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Chloroform         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Trichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,2-D											
1,1-Dichloroethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           2-Butanone         ND         ug/Kg         100         3.2         1         279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           2,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Chloroform         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO      <							1				
2-Butanone         ND         ug/Kg         100         3.2         1 279229         12/04/21         12/04/21         RAO           cis-1,2-Dichloroethene         ND         ug/Kg         5.0         0.5         1 279229         12/04/21         12/04/21         RAO           2,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1 279229         12/04/21         12/04/21         RAO           Chloroform         ND         ug/Kg         5.0         0.4         1 279229         12/04/21         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1 279229         12/04/21         12/04/21         RAO           1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1 279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.5         1 279229         12/04/21         12/04/21         RAO           1,2-Dichloropropene         ND         ug/Kg         5.0         0.4         1 279229         12/04/21         12/04/21         RAO           1,2-Dichloropropene         ND         ug/Kg         5.0         0.5		ND			5.0	0.4	1	279229	12/04/21	12/04/21	
2,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Chloroform         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	2-Butanone	ND			100	3.2	1	279229	12/04/21	12/04/21	RAO
Chloroform         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloroptane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Benzene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO	2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Benzene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Benzene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO	Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Benzene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO <tr< td=""><td>1,1,1-Trichloroethane</td><td>ND</td><td></td><td>ug/Kg</td><td>5.0</td><td>0.5</td><td>1</td><td>279229</td><td>12/04/21</td><td>12/04/21</td><td>RAO</td></tr<>	1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Benzene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO	1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Benzene         ND         ug/Kg         5.0         0.2         1         279229         12/04/21         12/04/21         RAO           Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO <td>Carbon Tetrachloride</td> <td>ND</td> <td></td> <td>ug/Kg</td> <td>5.0</td> <td>0.3</td> <td>1</td> <td>279229</td> <td>12/04/21</td> <td>12/04/21</td> <td>RAO</td>	Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichloroethene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RA	1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO	Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone         ND         ug/Kg         5.0         1.9         1         279229         12/04/21         12/04/21         RAO           cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene         ND         ug/Kg         5.0         0.3         1         279229         12/04/21         12/04/21         RAO           Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Toluene         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO           trans-1,3-Dichloropropene         ND         ug/Kg         5.0         0.4         1         279229         12/04/21         12/04/21         RAO           1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	4-Methyl-2-Pentanone	ND	-	ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene ND ug/Kg 5.0 0.4 1 279229 12/04/21 12/04/21 RAO 1,1,2-Trichloroethane ND ug/Kg 5.0 0.6 1 279229 12/04/21 12/04/21 RAO 1,3-Dichloropropane ND ug/Kg 5.0 0.5 1 279229 12/04/21 12/04/21 RAO	cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane         ND         ug/Kg         5.0         0.6         1         279229         12/04/21         12/04/21         RAO           1,3-Dichloropropane         ND         ug/Kg         5.0         0.5         1         279229         12/04/21         12/04/21         RAO	Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane ND ug/Kg 5.0 0.5 1 279229 12/04/21 12/04/21 RAO	trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
	1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene ND ug/Kg 5.0 0.6 1 279229 12/04/21 12/04/21 RAO	1,3-Dichloropropane			ug/Kg	5.0	0.5	1	279229		12/04/21	RAO
	Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-027 Analyte	Result	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND	ug/Kg	10	8.0	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates			Limits						
Dibromofluoromethane	99%	%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	90%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	99%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%	%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	50	10	5	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND	ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Naphthalene	ND	ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND	ug/Kg	50	36	5	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND	ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Fluorene	ND	ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND	ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Anthracene	ND	ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW



454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	13	J	ug/Kg	50	12	5	279158	12/03/21	12/06/21	TJW
Pyrene	14	J	ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		5	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	82%		%REC	30-120		5	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	98%		%REC	33-155		5	279158	12/03/21	12/06/21	TJW



Sample ID: B27-3 Lab ID: 454317-028 Collected: 11/30/21 15:03

Matrix: Soil

454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	2.0	J	mg/Kg	2.9	1.6	0.97	279144	12/02/21	12/03/21	KLN
Arsenic	2.0		mg/Kg	0.97	0.65	0.97	279144	12/02/21	12/03/21	KLN
Barium	110		mg/Kg	0.97	0.097	0.97	279144	12/02/21	12/03/21	KLN
Beryllium	0.28	J	mg/Kg	0.49	0.11	0.97	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.49	0.073	0.97	279144	12/02/21	12/03/21	KLN
Chromium	37		mg/Kg	0.97	0.20	0.97	279144	12/02/21	12/03/21	KLN
Cobalt	15		mg/Kg	0.49	0.066	0.97	279144	12/02/21	12/03/21	KLN
Copper	29		mg/Kg	0.97	0.58	0.97	279144	12/02/21	12/03/21	KLN
Lead	9.9		mg/Kg	0.97	0.82	0.97	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.97	0.57	0.97	279144	12/02/21	12/03/21	KLN
Nickel	39		mg/Kg	0.97	0.25	0.97	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.9	0.39	0.97	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.49	0.16	0.97	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.9	0.56	0.97	279144	12/02/21	12/03/21	KLN
Vanadium	84		mg/Kg	0.97	0.42	0.97	279144	12/02/21	12/03/21	KLN
Zinc	54		mg/Kg	4.9	0.73	0.97	279144	12/02/21	12/03/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prep Method: EPA 5030B	1.3		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates	ND		mg/rtg	Limits	0.24		2/9/0/	12/03/21	12/03/21	LIVIVV
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	0376		761 ILO	00-140			273137	12/05/21	12/03/21	LIVIVV
DRO C10-C28	7.2	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	16	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
				Limits						
Surrogates				Lillilio						
Surrogates n-Triacontane	107%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
n-Triacontane Method: EPA 8082	107%		%REC			1	279190	12/03/21	12/07/21	MES
n-Triacontane Method: EPA 8082	107% ND		%REC		18	1	279190	12/03/21	12/04/21	MES
n-Triacontane Method: EPA 8082 Prep Method: EPA 3546				70-130	18					
n-Triacontane  Method: EPA 8082  Prep Method: EPA 3546  Aroclor-1016	ND		ug/Kg	70-130		1	279164	12/03/21	12/04/21	TJW
n-Triacontane  Method: EPA 8082  Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221	ND ND		ug/Kg ug/Kg	70-130 50 50	14	1 1	279164 279164	12/03/21 12/03/21	12/04/21 12/04/21	TJW
n-Triacontane  Method: EPA 8082  Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221  Aroclor-1232	ND ND ND		ug/Kg ug/Kg ug/Kg	70-130 50 50 50	14 16	1 1 1	279164 279164 279164	12/03/21 12/03/21 12/03/21	12/04/21 12/04/21 12/04/21	TJW TJW
Method: EPA 8082 Prep Method: EPA 3546  Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242	ND ND ND		ug/Kg ug/Kg ug/Kg ug/Kg	70-130 50 50 50 50	14 16 14	1 1 1	279164 279164 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21	12/04/21 12/04/21 12/04/21 12/04/21	TJW TJW TJW
n-Triacontane  Method: EPA 8082  Prep Method: EPA 3546  Aroclor-1016  Aroclor-1221  Aroclor-1232  Aroclor-1242  Aroclor-1248	ND ND ND ND		ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	70-130 50 50 50 50 50	14 16 14 4.3	1 1 1 1 1	279164 279164 279164 279164 279164	12/03/21 12/03/21 12/03/21 12/03/21 12/03/21	12/04/21 12/04/21 12/04/21 12/04/21 12/04/21	TJW TJW TJW TJW



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454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	54%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113 1,1-Dichloroethene	ND ND		ug/Kg	5.0	0.7	1 1	279229 279229	12/04/21 12/04/21	12/04/21	RAO RAO
Methylene Chloride	ND		ug/Kg ug/Kg	5.0	0.2	<u>'</u>	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	<u>'</u> 1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	8.0	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	90%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	92%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.0	1	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Naphthalene	4.5	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.1	1	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Phenanthrene	11		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Anthracene	2.9	J	ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW



454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	15		ug/Kg	10	2.4	1	279158	12/03/21	12/06/21	TJW
Pyrene	16		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	6.0	J	ug/Kg	10	4.2	1	279158	12/03/21	12/06/21	TJW
Chrysene	8.9	J	ug/Kg	10	3.6	1	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	5.9	J	ug/Kg	10	5.3	1	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	7.5	J	ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	8.4	J	ug/Kg	10	3.5	1	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	5.1	J	ug/Kg	10	4.1	1	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	5.8	J	ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	82%		%REC	27-125		1	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	84%		%REC	30-120		1	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	108%		%REC	33-155		1	279158	12/03/21	12/06/21	TJW



Sample ID: B27-5 Lab ID: 454317-029 Collected: 11/30/21 15:09

Matrix: Soil

454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemis
Method: EPA 6010B										
Prep Method: METHOD										
Antimony	2.1	J	mg/Kg	3.1	1.6	1	279144	12/02/21	12/03/21	KLN
Arsenic	1.1		mg/Kg	1.0	0.68	1	279144	12/02/21	12/03/21	KLN
Barium	89		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.35	J	mg/Kg	0.51	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.51	0.077	1	279144	12/02/21	12/03/21	KLN
Chromium	30		mg/Kg	1.0	0.21	1	279144	12/02/21	12/03/21	KLN
Cobalt	20		mg/Kg	0.51	0.069	1	279144	12/02/21	12/03/21	KLN
Copper	36		mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Lead	9.6		mg/Kg	1.0	0.86	1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.60	1	279144	12/02/21	12/03/21	KLN
Nickel	43		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	0.73	J	mg/Kg	3.1	0.41	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.51	0.16	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.59	1	279144	12/02/21	12/03/21	KLN
Vanadium	130		mg/Kg	1.0	0.44	1	279144	12/02/21	12/03/21	KLN
Zinc	66		mg/Kg	5.1	0.77	1	279144	12/02/21	12/03/21	KLN
Prep Method: METHOD  Mercury  Method: EPA 8015B  Prop Method: EPA 5030B	1.1		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN
Prep Method: EPA 5030B  TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates	ND		mg/Rg	Limits	0.24	- '	2/9/3/	12/03/21	12/03/21	LIVIVV
Bromofluorobenzene (FID)	87%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580	07 78		761 ILO	00-140		ı	279137	12/03/21	12/03/21	LIVIVV
DRO C10-C28	3.3	J	mg/Kg	10	2.4	1	279190	12/03/21	12/08/21	MES
ORO C28-C44	6.2	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/08/21	MES
Surrogates				Limits						
n-Triacontane	99%		%REC	70-130		1	279190	12/03/21	12/08/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16		279164	12/03/21	12/04/21	TJW



		•	313 110	Suits	101 70	770				
454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates				Limits						
Decachlorobiphenyl (PCB)	54%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO



454317-029 Analyte	Result (	Qual Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND	ug/Kg	10	8.0	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND	ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND	ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND	ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates			Limits						
Dibromofluoromethane	96%	%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	92%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	98%	%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%	%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND	ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	ND	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND	ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND	ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND	ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	15	J ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND	ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW



454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	11	J	ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	81%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	100%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW

Value is outside QC limits

B Contamination found in associated Method Blank

J Estimated value

ND Not Detected



Type: Lab Control Sample Lab ID: QC958762 Batch: 279137

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC958762 Analyte	Result	Spiked	Units	Recovery Qual	Limits
TPH Gasoline	5.659	5.000	mg/Kg	113%	70-130
Surrogates					
Bromofluorobenzene (FID)	0.2574	0.2000	mg/Kg	129%	60-140

Type: Matrix Spike Lab ID: QC958765 Batch: 279137

Matrix (Source ID): Soil (454317-001) Method: EPA 8015B Prep Method: EPA 5030B

Source

		Sample						
QC958765 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
TPH Gasoline	4.627	ND	5.000	mg/Kg	93%		70-130	1
Surrogates								
Bromofluorobenzene (FID)	0.2484		0.2000	mg/Kg	124%		60-140	1

Type: Matrix Spike Duplicate Lab ID: QC958766 Batch: 279137

Matrix (Source ID): Soil (454317-001) Method: EPA 8015B Prep Method: EPA 5030B

Source Sample RPD QC958766 Analyte Result Units Recovery Qual **RPD** Result Spiked Limits Lim DF TPH Gasoline 4.363 ND 5.000 87% 70-130 20 mg/Kg 1 Surrogates Bromofluorobenzene (FID) 0.2434 0.2000 mg/Kg 122% 60-140

Type: Blank Lab ID: QC958767 Batch: 279137

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC958767 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	3.0	0.24	12/02/21	12/02/21
Surrogates				Limits			_
Bromofluorobenzene (FID)	91%		%REC	60-140		12/02/21	12/02/21

Type: Blank Lab ID: QC958768 Batch: 279137

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC958768 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	75	6.0	12/02/21	12/02/21
Surrogates				Limits			_
Bromofluorobenzene (FID)	91%		%REC	60-140		12/02/21	12/02/21



Type: Lab Control Sample Lab ID: QC959226 Batch: 279138

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC959226 Analyte	Result	Spiked	Units	Recovery (	Qual	Limits
TPH Gasoline	5.357	5.000	mg/Kg	107%		70-130
Surrogates						
Bromofluorobenzene (FID)	0.2778	0.2000	mg/Kg	139%		60-140

Type: Matrix Spike Lab ID: QC959227 Batch: 279138

Matrix (Source ID): Soil (454317-023) Method: EPA 8015B Prep Method: EPA 5030B

Source

		Sample						
QC959227 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
TPH Gasoline	4.037	ND	5.000	mg/Kg	81%		70-130	1
Surrogates								
Bromofluorobenzene (FID)	0.2398		0.2000	mg/Kg	120%		60-140	1

Type: Matrix Spike Duplicate Lab ID: QC959228 Batch: 279138

Matrix (Source ID): Soil (454317-023) Method: EPA 8015B Prep Method: EPA 5030B

Source Sample RPD QC959228 Analyte Result Units Recovery Qual **RPD** Result Spiked Limits Lim DF TPH Gasoline 3.978 ND 5.000 80% 70-130 mg/Kg 1 Surrogates Bromofluorobenzene (FID) 0.2350 0.2000 mg/Kg 117% 60-140

Type: Blank Lab ID: QC959229 Batch: 279138

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC959229 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	3.0	0.24	12/06/21	12/06/21
Surrogates				Limits			_
Bromofluorobenzene (FID)	90%		%REC	60-140		12/06/21	12/06/21

Type: Blank Lab ID: QC959230 Batch: 279138

Matrix: Soil Method: EPA 8015B Prep Method: EPA 5030B

QC959230 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	75	6.0	12/06/21	12/06/21
Surrogates				Limits			_
Bromofluorobenzene (FID)	75%		%REC	60-140		12/06/21	12/06/21



Type: Blank Lab ID: QC958785 Batch: 279144

Matrix: Soil Method: EPA 6010B Prep Method: METHOD

QC958785 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	1.6	12/02/21	12/06/21
Arsenic	ND		mg/Kg	1.0	0.67	12/02/21	12/06/21
Barium	ND		mg/Kg	1.0	0.10	12/02/21	12/06/21
Beryllium	ND		mg/Kg	0.50	0.11	12/02/21	12/06/21
Cadmium	ND		mg/Kg	0.50	0.075	12/02/21	12/06/21
Chromium	ND		mg/Kg	1.0	0.21	12/02/21	12/06/21
Cobalt	ND		mg/Kg	0.50	0.068	12/02/21	12/06/21
Copper	ND		mg/Kg	1.0	0.60	12/02/21	12/06/21
Lead	ND		mg/Kg	1.0	0.84	12/02/21	12/06/21
Molybdenum	ND		mg/Kg	1.0	0.59	12/02/21	12/06/21
Nickel	ND		mg/Kg	1.0	0.26	12/02/21	12/06/21
Selenium	ND		mg/Kg	3.0	0.40	12/02/21	12/06/21
Silver	ND		mg/Kg	0.50	0.16	12/02/21	12/06/21
Thallium	ND		mg/Kg	3.0	0.58	12/02/21	12/06/21
Vanadium	ND		mg/Kg	1.0	0.43	12/02/21	12/06/21
Zinc	0.98	J	mg/Kg	5.0	0.75	12/02/21	12/06/21

Type: Lab Control Sample Lab ID: QC958786 Batch: 279144

Matrix: Soil Method: EPA 6010B Prep Method: METHOD

QC958786 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Antimony	105.6	100.0	mg/Kg	106%	80-120
Arsenic	104.0	100.0	mg/Kg	104%	80-120
Barium	107.3	100.0	mg/Kg	107%	80-120
Beryllium	102.1	100.0	mg/Kg	102%	80-120
Cadmium	102.3	100.0	mg/Kg	102%	80-120
Chromium	103.2	100.0	mg/Kg	103%	80-120
Cobalt	107.5	100.0	mg/Kg	108%	80-120
Copper	103.6	100.0	mg/Kg	104%	80-120
Lead	109.8	100.0	mg/Kg	110%	80-120
Molybdenum	107.9	100.0	mg/Kg	108%	80-120
Nickel	108.3	100.0	mg/Kg	108%	80-120
Selenium	91.86	100.0	mg/Kg	92%	80-120
Silver	50.63	50.00	mg/Kg	101%	80-120
Thallium	107.6	100.0	mg/Kg	108%	80-120
Vanadium	103.7	100.0	mg/Kg	104%	80-120
Zinc	106.7	100.0	mg/Kg	107%	80-120



Type: Matrix Spike Lab ID: QC958787 Batch: 279144

Matrix (Source ID): Soil (454317-001) Method: EPA 6010B Prep Method: METHOD

		Source Sample						
QC958787 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	34.06	ND	93.46	mg/Kg	36%	*	75-125	0.93
Arsenic	107.4	4.542	93.46	mg/Kg	110%		75-125	0.93
Barium	366.4	195.0	93.46	mg/Kg	183%	*	75-125	0.93
Beryllium	92.82	0.2672	93.46	mg/Kg	99%		75-125	0.93
Cadmium	100.2	ND	93.46	mg/Kg	107%		75-125	0.93
Chromium	141.9	41.06	93.46	mg/Kg	108%		75-125	0.93
Cobalt	101.6	7.961	93.46	mg/Kg	100%		75-125	0.93
Copper	124.8	27.14	93.46	mg/Kg	105%		75-125	0.93
Lead	114.2	19.52	93.46	mg/Kg	101%		75-125	0.93
Molybdenum	98.55	0.6749	93.46	mg/Kg	105%		75-125	0.93
Nickel	142.0	46.01	93.46	mg/Kg	103%		75-125	0.93
Selenium	90.26	ND	93.46	mg/Kg	97%		75-125	0.93
Silver	46.54	ND	46.73	mg/Kg	100%		75-125	0.93
Thallium	92.85	0.6883	93.46	mg/Kg	99%		75-125	0.93
Vanadium	157.2	58.88	93.46	mg/Kg	105%		75-125	0.93
Zinc	158.6	58.44	93.46	mg/Kg	107%		75-125	0.93

Type: Matrix Spike Duplicate Lab ID: QC958788 Batch: 279144

Matrix (Source ID): Soil (454317-001) Method: EPA 6010B Prep Method: METHOD

		Source Sample							RPD	
QC958788 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Antimony	41.94	ND	104.2	mg/Kg	40%	*	75-125	10	41	1
Arsenic	118.1	4.542	104.2	mg/Kg	109%		75-125	1	35	1
Barium	319.8	195.0	104.2	mg/Kg	120%		75-125	17	20	1
Beryllium	103.2	0.2672	104.2	mg/Kg	99%		75-125	0	20	1
Cadmium	111.0	ND	104.2	mg/Kg	107%		75-125	1	20	1
Chromium	155.3	41.06	104.2	mg/Kg	110%		75-125	1	20	1
Cobalt	111.8	7.961	104.2	mg/Kg	100%		75-125	0	20	1
Copper	138.4	27.14	104.2	mg/Kg	107%		75-125	2	20	1
Lead	125.1	19.52	104.2	mg/Kg	101%		75-125	0	20	1
Molybdenum	109.1	0.6749	104.2	mg/Kg	104%		75-125	1	20	1
Nickel	154.8	46.01	104.2	mg/Kg	104%		75-125	1	20	1
Selenium	99.72	ND	104.2	mg/Kg	96%		75-125	1	20	1
Silver	52.00	ND	52.08	mg/Kg	100%		75-125	0	20	1
Thallium	103.6	0.6883	104.2	mg/Kg	99%		75-125	0	20	1
Vanadium	169.3	58.88	104.2	mg/Kg	106%		75-125	1	20	1
Zinc	168.2	58.44	104.2	mg/Kg	105%		75-125	1	20	1



Type: Blank Lab ID: QC958811 Batch: 279153

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

QC958811 Analyte	Result	Qual Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	12/02/21	12/02/21
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	12/02/21	12/02/21
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	12/02/21	12/02/21
Freon 12	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Chloromethane	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Vinyl Chloride	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromomethane	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Chloroethane	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Acetone	ND	ug/Kg	100	25	12/02/21	12/02/21
Freon 113	ND	ug/Kg	5.0	0.7	12/02/21	12/02/21
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	12/02/21	12/02/21
Methylene Chloride	ND	ug/Kg	5.0	0.7	12/02/21	12/02/21
MTBE	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
2-Butanone	ND	ug/Kg	100	3.2	12/02/21	12/02/21
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Chloroform	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromochloromethane	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Benzene	ND	ug/Kg	5.0	0.2	12/02/21	12/02/21
Trichloroethene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
Bromodichloromethane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Dibromomethane	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	12/02/21	12/02/21
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Toluene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Tetrachloroethene	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
Dibromochloromethane	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21



QC958811 Analyte	Result	Qual Units	RL	MDL	Prepared	Analyzed
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Chlorobenzene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Ethylbenzene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
m,p-Xylenes	ND	ug/Kg	10	0.8	12/02/21	12/02/21
o-Xylene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
Styrene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Bromoform	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Isopropylbenzene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	12/02/21	12/02/21
Propylbenzene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromobenzene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	12/02/21	12/02/21
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	12/02/21	12/02/21
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
n-Butylbenzene	ND	ug/Kg	5.0	0.7	12/02/21	12/02/21
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	12/02/21	12/02/21
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	12/02/21	12/02/21
Naphthalene	ND	ug/Kg	5.0	0.9	12/02/21	12/02/21
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	12/02/21	12/02/21
Xylene (total)	ND	ug/Kg	5.0		12/02/21	12/02/21
Surrogates			Limits			
Dibromofluoromethane	100%	%REC	70-130	1.3	12/02/21	12/02/21
1,2-Dichloroethane-d4	99%	%REC	70-145		12/02/21	12/02/21
Toluene-d8	100%	%REC	70-145		12/02/21	12/02/21
Bromofluorobenzene	99%	%REC	70-145	1.5	12/02/21	12/02/21



Type: Lab Control Sample Lab ID: QC958812 Batch: 279153

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

QC958812 Analyte	Result	Spiked	Units	Recovery Qual	Limits
1,1-Dichloroethene	54.38	50.00	ug/Kg	109%	70-131
MTBE	54.45	50.00	ug/Kg	109%	69-130
Benzene	53.75	50.00	ug/Kg	107%	70-130
Trichloroethene	52.15	50.00	ug/Kg	104%	70-130
Toluene	50.82	50.00	ug/Kg	102%	70-130
Chlorobenzene	53.63	50.00	ug/Kg	107%	70-130
Surrogates					
Dibromofluoromethane	52.36	50.00	ug/Kg	105%	70-130
1,2-Dichloroethane-d4	51.32	50.00	ug/Kg	103%	70-145
Toluene-d8	48.15	50.00	ug/Kg	96%	70-145
Bromofluorobenzene	47.66	50.00	ug/Kg	95%	70-145

Type: Lab Control Sample Duplicate Lab ID: QC958813 Batch: 279153

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

							RPD
Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
51.53	50.00	ug/Kg	103%		70-131	5	33
50.51	50.00	ug/Kg	101%		69-130	8	30
49.96	50.00	ug/Kg	100%		70-130	7	30
49.84	50.00	ug/Kg	100%		70-130	5	30
48.12	50.00	ug/Kg	96%		70-130	5	30
49.82	50.00	ug/Kg	100%		70-130	7	30
51.64	50.00	ug/Kg	103%		70-130		
49.95	50.00	ug/Kg	100%		70-145		
48.62	50.00	ug/Kg	97%		70-145		
48.81	50.00	ug/Kg	98%		70-145		
	51.53 50.51 49.96 49.84 48.12 49.82 51.64 49.95 48.62	51.53 50.00 50.51 50.00 49.96 50.00 49.84 50.00 48.12 50.00 49.82 50.00 51.64 50.00 49.95 50.00 48.62 50.00	51.53 50.00 ug/Kg 50.51 50.00 ug/Kg 49.96 50.00 ug/Kg 49.84 50.00 ug/Kg 48.12 50.00 ug/Kg 49.82 50.00 ug/Kg 51.64 50.00 ug/Kg 49.95 50.00 ug/Kg 48.62 50.00 ug/Kg	51.53       50.00       ug/Kg       103%         50.51       50.00       ug/Kg       101%         49.96       50.00       ug/Kg       100%         49.84       50.00       ug/Kg       100%         48.12       50.00       ug/Kg       96%         49.82       50.00       ug/Kg       100%         51.64       50.00       ug/Kg       103%         49.95       50.00       ug/Kg       100%         48.62       50.00       ug/Kg       97%	51.53       50.00       ug/Kg       103%         50.51       50.00       ug/Kg       101%         49.96       50.00       ug/Kg       100%         49.84       50.00       ug/Kg       100%         48.12       50.00       ug/Kg       96%         49.82       50.00       ug/Kg       100%         51.64       50.00       ug/Kg       103%         49.95       50.00       ug/Kg       100%         48.62       50.00       ug/Kg       97%	51.53       50.00       ug/Kg       103%       70-131         50.51       50.00       ug/Kg       101%       69-130         49.96       50.00       ug/Kg       100%       70-130         49.84       50.00       ug/Kg       100%       70-130         48.12       50.00       ug/Kg       96%       70-130         49.82       50.00       ug/Kg       100%       70-130         51.64       50.00       ug/Kg       103%       70-130         49.95       50.00       ug/Kg       100%       70-145         48.62       50.00       ug/Kg       97%       70-145	51.53     50.00     ug/Kg     103%     70-131     5       50.51     50.00     ug/Kg     101%     69-130     8       49.96     50.00     ug/Kg     100%     70-130     7       49.84     50.00     ug/Kg     100%     70-130     5       48.12     50.00     ug/Kg     96%     70-130     5       49.82     50.00     ug/Kg     100%     70-130     7       51.64     50.00     ug/Kg     103%     70-130     7       49.95     50.00     ug/Kg     100%     70-145       48.62     50.00     ug/Kg     97%     70-145



Type: Blank Lab ID: QC958829 Batch: 279158

Matrix: Soil Method: EPA 8270C-SIM Prep Method: EPA 3546

QC958829 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
2-Methylnaphthalene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Naphthalene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Acenaphthylene	ND		ug/Kg	10	7.1	12/03/21	12/04/21
Acenaphthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Fluorene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
Phenanthrene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Anthracene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Fluoranthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Pyrene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
Benzo(a)anthracene	ND		ug/Kg	10	4.3	12/03/21	12/04/21
Chrysene	ND		ug/Kg	10	3.6	12/03/21	12/04/21
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	12/03/21	12/04/21
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Benzo(a)pyrene	ND		ug/Kg	10	3.5	12/03/21	12/04/21
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	12/03/21	12/04/21
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	12/03/21	12/04/21
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	12/03/21	12/04/21
Surrogates				Limits			
Nitrobenzene-d5	77%		%REC	27-125		12/03/21	12/04/21
2-Fluorobiphenyl	79%		%REC	30-120		12/03/21	12/04/21
Terphenyl-d14	91%		%REC	33-155		12/03/21	12/04/21



Type: Lab Control Sample Lab ID: QC958830 Batch: 279158

Matrix: Soil Method: EPA 8270C-SIM Prep Method: EPA 3546

QC958830 Analyte	Result	Spiked	Units	Recovery Qual	Limits
1-Methylnaphthalene	145.3	200.0	ug/Kg	73%	28-130
2-Methylnaphthalene	150.5	200.0	ug/Kg	75%	33-130
Naphthalene	156.9	200.0	ug/Kg	78%	25-130
Acenaphthylene	142.5	200.0	ug/Kg	71%	28-130
Acenaphthene	166.9	200.0	ug/Kg	83%	32-130
Fluorene	166.5	200.0	ug/Kg	83%	35-130
Phenanthrene	168.6	200.0	ug/Kg	84%	35-132
Anthracene	170.6	200.0	ug/Kg	85%	34-136
Fluoranthene	174.3	200.0	ug/Kg	87%	34-139
Pyrene	174.4	200.0	ug/Kg	87%	35-134
Benzo(a)anthracene	188.3	200.0	ug/Kg	94%	30-132
Chrysene	188.6	200.0	ug/Kg	94%	29-130
Benzo(b)fluoranthene	197.2	200.0	ug/Kg	99%	32-137
Benzo(k)fluoranthene	196.1	200.0	ug/Kg	98%	32-130
Benzo(a)pyrene	204.6	200.0	ug/Kg	102%	10-138
Indeno(1,2,3-cd)pyrene	150.6	200.0	ug/Kg	75%	34-132
Dibenz(a,h)anthracene	151.7	200.0	ug/Kg	76%	32-130
Benzo(g,h,i)perylene	154.0	200.0	ug/Kg	77%	27-130
Surrogates					
Nitrobenzene-d5	169.9	200.0	ug/Kg	85%	27-125
2-Fluorobiphenyl	150.0	200.0	ug/Kg	75%	30-120
Terphenyl-d14	158.8	200.0	ug/Kg	79%	33-155



Type: Matrix Spike Lab ID: QC958831 Batch: 279158

Matrix (Source ID): Soil (454317-001) Method: EPA 8270C-SIM Prep Method: EPA 3546

		Source Sample						
QC958831 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	172.5	ND	200.0	ug/Kg	86%		25-130	5
2-Methylnaphthalene	155.9	ND	200.0	ug/Kg	78%		32-133	5
Naphthalene	167.7	ND	200.0	ug/Kg	84%		33-130	5
Acenaphthylene	161.6	ND	200.0	ug/Kg	81%		14-157	5
Acenaphthene	178.8	ND	200.0	ug/Kg	89%		28-134	5
Fluorene	179.0	ND	200.0	ug/Kg	90%		27-140	5
Phenanthrene	207.7	20.97	200.0	ug/Kg	93%		29-147	5
Anthracene	203.2	ND	200.0	ug/Kg	102%		24-156	5
Fluoranthene	258.9	44.79	200.0	ug/Kg	107%		28-160	5
Pyrene	262.5	47.14	200.0	ug/Kg	108%		26-153	5
Benzo(a)anthracene	223.7	ND	200.0	ug/Kg	112%		26-174	5
Chrysene	242.4	30.21	200.0	ug/Kg	106%		40-139	5
Benzo(b)fluoranthene	235.2	ND	200.0	ug/Kg	118%		36-164	5
Benzo(k)fluoranthene	237.9	20.41	200.0	ug/Kg	109%		36-161	5
Benzo(a)pyrene	250.5	23.79	200.0	ug/Kg	113%		18-173	5
Indeno(1,2,3-cd)pyrene	173.3	ND	200.0	ug/Kg	87%		26-154	5
Dibenz(a,h)anthracene	164.1	ND	200.0	ug/Kg	82%		38-132	5
Benzo(g,h,i)perylene	184.8	ND	200.0	ug/Kg	92%		36-130	5
Surrogates								
Nitrobenzene-d5	158.5		200.0	ug/Kg	79%		27-125	5
2-Fluorobiphenyl	157.5		200.0	ug/Kg	79%		30-120	5
Terphenyl-d14	180.4		200.0	ug/Kg	90%		33-155	5



Type: Matrix Spike Duplicate Lab ID: QC958832 Batch: 279158

Matrix (Source ID): Soil (454317-001) Method: EPA 8270C-SIM Prep Method: EPA 3546

		Source								
QC958832 Analyte	Result	Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	165.4	ND	200.0	ug/Kg	83%		25-130	4	35	5
2-Methylnaphthalene	151.9	ND	200.0	ug/Kg	76%		32-133	3	35	5
Naphthalene	160.6	ND	200.0	ug/Kg	80%		33-130	4	35	5
Acenaphthylene	151.6	ND	200.0	ug/Kg	76%		14-157	6	35	5
Acenaphthene	173.9	ND	200.0	ug/Kg	87%		28-134	3	35	5
Fluorene	169.6	ND	200.0	ug/Kg	85%		27-140	5	35	5
Phenanthrene	200.5	20.97	200.0	ug/Kg	90%		29-147	4	35	5
Anthracene	190.7	ND	200.0	ug/Kg	95%		24-156	6	35	5
Fluoranthene	243.5	44.79	200.0	ug/Kg	99%		28-160	6	35	5
Pyrene	240.5	47.14	200.0	ug/Kg	97%		26-153	9	35	5
Benzo(a)anthracene	215.3	ND	200.0	ug/Kg	108%		26-174	4	35	5
Chrysene	226.2	30.21	200.0	ug/Kg	98%		40-139	7	35	5
Benzo(b)fluoranthene	218.5	ND	200.0	ug/Kg	109%		36-164	7	35	5
Benzo(k)fluoranthene	223.0	20.41	200.0	ug/Kg	101%		36-161	6	35	5
Benzo(a)pyrene	229.0	23.79	200.0	ug/Kg	103%		18-173	9	35	5
Indeno(1,2,3-cd)pyrene	162.0	ND	200.0	ug/Kg	81%		26-154	7	35	5
Dibenz(a,h)anthracene	154.3	ND	200.0	ug/Kg	77%		38-132	6	35	5
Benzo(g,h,i)perylene	173.1	ND	200.0	ug/Kg	87%		36-130	7	35	5
Surrogates										
Nitrobenzene-d5	148.6		200.0	ug/Kg	74%		27-125			5
2-Fluorobiphenyl	152.3		200.0	ug/Kg	76%		30-120			5
Terphenyl-d14	170.1		200.0	ug/Kg	85%		33-155			5

Type: Blank Lab ID: QC958855 Batch: 279164

Matrix: Soil Method: EPA 8082 Prep Method: EPA 3546

QC958855 Analyte	Result	Qual Units	RL	MDL	Prepared	Analyzed
Aroclor-1016	ND	ug/Kg	50	18	12/03/21	12/04/21
Aroclor-1221	ND	ug/Kg	50	14	12/03/21	12/04/21
Aroclor-1232	ND	ug/Kg	50	16	12/03/21	12/04/21
Aroclor-1242	ND	ug/Kg	50	14	12/03/21	12/04/21
Aroclor-1248	ND	ug/Kg	50	4.3	12/03/21	12/04/21
Aroclor-1254	ND	ug/Kg	50	6.1	12/03/21	12/04/21
Aroclor-1260	ND	ug/Kg	50	25	12/03/21	12/04/21
Aroclor-1262	ND	ug/Kg	50	16	12/03/21	12/04/21
Aroclor-1268	ND	ug/Kg	50	13	12/03/21	12/04/21
Surrogates			Limits			
Decachlorobiphenyl (PCB)	69%	%REC	19-121		12/03/21	12/04/21



Type: La	b Control Sample	Lab ID:	QC958856	Batch:	279164
Matrix: So	oil	Method:	EPA 8082	Prep Method:	EPA 3546

QC958856 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Aroclor-1016	368.0	500.0	ug/Kg	74%	14-150
Aroclor-1260	355.3	500.0	ug/Kg	71%	10-150
Surrogates					
Decachlorobiphenyl (PCB)	35.98	50.00	ug/Kg	72%	19-121

Type: Matrix Spike	Lab ID: QC958857	Batch: 279164
Matrix (Source ID): Soil (454317-001)	Method: EPA 8082	Prep Method: EPA 3546

# Source Sample

		Oup.o						
QC958857 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
Aroclor-1016	359.3	18.47	500.0	ug/Kg	68%		42-127	1
Aroclor-1260	321.9	ND	500.0	ug/Kg	64%		38-130	1
Surrogates								
Decachlorobiphenyl (PCB)	31.75		50.00	ug/Kg	64%		19-121	1

Type: Matrix Spike Duplicate	Lab ID: QC958858	Batch: 279164
Matrix (Source ID): Soil (454317-001)	Method: EPA 8082	Prep Method: EPA 3546

	Sample							RPD		
QC958858 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Aroclor-1016	294.5	18.47	500.0	ug/Kg	55%		42-127	20	30	1
Aroclor-1260	299.4	ND	500.0	ug/Kg	60%		38-130	7	30	1
Surrogates										
Decachlorobiphenyl (PCB)	28.93		50.00	ug/Kg	58%		19-121			1

Type: Blank	Lab ID: QC958940	Batch: 279190
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC958940 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
DRO C10-C28	ND		mg/Kg	10	2.4	12/03/21	12/07/21
ORO C28-C44	3.8	J	mg/Kg	20	2.4	12/03/21	12/07/21
Surrogates				Limits			
n-Triacontane	102%		%REC	70-130		12/03/21	12/07/21



Type: Lab Control Sample	Lab ID: QC958941	Batch: 279190
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC958941 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Diesel C10-C28	221.4	250.0	mg/Kg	89%	76-122
Surrogates					
n-Triacontane	10.13	10.00	mg/Kg	101%	70-130

Type: Matrix Spike	Lab ID: QC958942	Batch: 279190
Matrix (Source ID): Soil (454317-019)	Method: EPA 8015M	Prep Method: EPA 3580

Source

		Sample						
QC958942 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	228.3	15.33	250.0	mg/Kg	85%		62-126	1
Surrogates								
n-Triacontane	10.83		10.00	mg/Kg	108%		70-130	1

Type: Matrix Spike Duplicate	Lab ID: QC958943	Batch: 279190
Matrix (Source ID): Soil (454317-019)	Method: EPA 8015M	Prep Method: EPA 3580

		Source Sample							RPD	
QC958943 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Diesel C10-C28	220.9	15.33	250.0	mg/Kg	82%		62-126	3	35	1
Surrogates										
n-Triacontane	10.71		10.00	mg/Kg	107%		70-130			1

Type:	Blank	Lab ID:	QC958993	Batch:	279206
Matrix:	Soil	Method:	EPA 7471A	Prep Method:	METHOD

QC958993 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.039	12/03/21	12/03/21

Type: Lab Control Sample	Lab ID: QC958994	Batch: 279206
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC958994 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Mercury	0.8338	0.8333	mg/Kg	100%	80-120



Type: Matrix Spike Lab ID: QC958995 Batch: 279206

Matrix (Source ID): Soil (454317-001) Method: EPA 7471A Prep Method: METHOD

Source

		Sample						
QC958995 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.9302	0.1437	0.8621	mg/Kg	91%		75-125	1

Type: Matrix Spike Duplicate Lab ID: QC958996 Batch: 279206

Matrix (Source ID): Soil (454317-001) Method: EPA 7471A Prep Method: METHOD

Source

		Sample							RPD	
QC958996 Analyte	Result	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Mercury	1.005	0.1437	0.9259	mg/Kg	93%		75-125	2	20	1.1



Type: Blank Lab ID: QC959025 Batch: 279229

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

QC959025 Analyte	Result	Qual Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
cis-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
trans-1,4-Dichloro-2-butene	ND	ug/Kg	5.0	0.9	12/03/21	12/03/21
Isopropyl Ether (DIPE)	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Ethyl tert-Butyl Ether (ETBE)	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Methyl tert-Amyl Ether (TAME)	ND	ug/Kg	5.0	0.7	12/03/21	12/03/21
tert-Butyl Alcohol (TBA)	ND	ug/Kg	10	8.8	12/03/21	12/03/21
Freon 12	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Chloromethane	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Vinyl Chloride	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromomethane	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Chloroethane	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Trichlorofluoromethane	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Acetone	ND	ug/Kg	100	25	12/03/21	12/03/21
Freon 113	ND	ug/Kg	5.0	0.7	12/03/21	12/03/21
1,1-Dichloroethene	ND	ug/Kg	5.0	0.2	12/03/21	12/03/21
Methylene Chloride	ND	ug/Kg	5.0	0.7	12/03/21	12/03/21
MTBE	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
trans-1,2-Dichloroethene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1-Dichloroethane	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
2-Butanone	ND	ug/Kg	100	3.2	12/03/21	12/03/21
cis-1,2-Dichloroethene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
2,2-Dichloropropane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Chloroform	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromochloromethane	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,1-Trichloroethane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
1,1-Dichloropropene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Carbon Tetrachloride	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
1,2-Dichloroethane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Benzene	ND	ug/Kg	5.0	0.2	12/03/21	12/03/21
Trichloroethene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
1,2-Dichloropropane	ND	ug/Kg	5.0	0.6	12/03/21	12/03/21
Bromodichloromethane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Dibromomethane	ND	ug/Kg	5.0	0.6	12/03/21	12/03/21
4-Methyl-2-Pentanone	ND	ug/Kg	5.0	1.9	12/03/21	12/03/21
cis-1,3-Dichloropropene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Toluene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
trans-1,3-Dichloropropene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,2-Trichloroethane	ND	ug/Kg	5.0	0.6	12/03/21	12/03/21
1,3-Dichloropropane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Tetrachloroethene	ND	ug/Kg		0.6	12/03/21	12/03/21
Dibromochloromethane	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21



QC959025 Analyte	Result	Qual Units	RL	MDL	Prepared	Analyzed
1,2-Dibromoethane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Chlorobenzene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Ethylbenzene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
m,p-Xylenes	ND	ug/Kg	10	0.8	12/03/21	12/03/21
o-Xylene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
Styrene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Bromoform	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Isopropylbenzene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
1,2,3-Trichloropropane	ND	ug/Kg	5.0	0.7	12/03/21	12/03/21
Propylbenzene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromobenzene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
1,3,5-Trimethylbenzene	ND	ug/Kg	5.0	0.4	12/03/21	12/03/21
2-Chlorotoluene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
4-Chlorotoluene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
tert-Butylbenzene	ND	ug/Kg	5.0	0.3	12/03/21	12/03/21
1,2,4-Trimethylbenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
sec-Butylbenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
para-Isopropyl Toluene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
1,3-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
1,4-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
n-Butylbenzene	ND	ug/Kg	5.0	0.7	12/03/21	12/03/21
1,2-Dichlorobenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	5.0	0.6	12/03/21	12/03/21
1,2,4-Trichlorobenzene	ND	ug/Kg	5.0	0.9	12/03/21	12/03/21
Hexachlorobutadiene	ND	ug/Kg	5.0	0.6	12/03/21	12/03/21
Naphthalene	ND	ug/Kg	5.0	0.9	12/03/21	12/03/21
1,2,3-Trichlorobenzene	ND	ug/Kg	5.0	0.5	12/03/21	12/03/21
Xylene (total)	ND	ug/Kg	5.0		12/03/21	12/03/21
Surrogates			Limits			
Dibromofluoromethane	97%	%REC	70-130	1.3	12/03/21	12/03/21
1,2-Dichloroethane-d4	93%	%REC	70-145		12/03/21	12/03/21
Toluene-d8	100%	%REC	70-145		12/03/21	12/03/21
Bromofluorobenzene	104%	%REC	70-145	1.5	12/03/21	12/03/21



Type: Lab Control Sample Lab ID: QC959026 Batch: 279229

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

QC959026 Analyte	Result	Spiked	Units	Recovery Qual	Limits
1,1-Dichloroethene	51.39	50.00	ug/Kg	103%	70-131
MTBE	52.03	50.00	ug/Kg	104%	69-130
Benzene	51.27	50.00	ug/Kg	103%	70-130
Trichloroethene	52.57	50.00	ug/Kg	105%	70-130
Toluene	50.31	50.00	ug/Kg	101%	70-130
Chlorobenzene	51.63	50.00	ug/Kg	103%	70-130
Surrogates					
Dibromofluoromethane	50.64	50.00	ug/Kg	101%	70-130
1,2-Dichloroethane-d4	48.84	50.00	ug/Kg	98%	70-145
Toluene-d8	49.67	50.00	ug/Kg	99%	70-145
Bromofluorobenzene	50.36	50.00	ug/Kg	101%	70-145

Type: Lab Control Sample Duplicate Lab ID: QC959027 Batch: 279229

Matrix: Soil Method: EPA 8260B Prep Method: EPA 5030B

								RPD
QC959027 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
1,1-Dichloroethene	48.65	50.00	ug/Kg	97%		70-131	5	33
MTBE	49.14	50.00	ug/Kg	98%		69-130	6	30
Benzene	49.02	50.00	ug/Kg	98%		70-130	4	30
Trichloroethene	48.45	50.00	ug/Kg	97%		70-130	8	30
Toluene	47.32	50.00	ug/Kg	95%		70-130	6	30
Chlorobenzene	48.56	50.00	ug/Kg	97%		70-130	6	30
Surrogates								
Dibromofluoromethane	50.60	50.00	ug/Kg	101%		70-130		
1,2-Dichloroethane-d4	45.75	50.00	ug/Kg	91%		70-145		
Toluene-d8	48.98	50.00	ug/Kg	98%		70-145		
Bromofluorobenzene	50.61	50.00	ug/Kg	101%		70-145		

Value is outside QC limits

J Estimated value

ND Not Detected



Enthalpy Analytical 931 West Barkley Ave Orange, CA 92868 (714) 771-6900

enthalpy.com

Lab Job Number: 454424

Report Level: II

Report Date: 12/14/2021

#### **Analytical Report** *prepared for:*

Mike Pendergrass Citadel EHS 2 Peters Canyon Road Irvine, CA 92606

Location: 1396 Fifth Street, Oakland, CA

Authorized for release by:

Jim Lin, Service Center Manager

Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105



# **Sample Summary**

Mike Pendergrass Lab Job #: 454424

Citadel EHS Location: 1396 Fifth Street, Oakland, CA

2 Peters Canyon Road Date Received: 12/03/21

Irvine, CA 92606

Sample ID	Lab ID	Collected	Matrix
B25-3V	454424-001	12/02/21 11:20	Air
B22-1.5V	454424-002	12/02/21 11:51	Air
B17-3.5V	454424-003	12/02/21 13:35	Air
B17-3.5VD	454424-004	12/02/21 13:35	Air
B18-1.5V	454424-005	12/02/21 14:17	Air
B27-2.5VD	454424-006	12/02/21 15:18	Air
B-27-2.5V	454424-007	12/02/21 10:55	Air
B-24-5V	454424-008	12/02/21 11:36	Air
B-20-5V	454424-011	12/02/21 13:55	Air



#### **Case Narrative**

Citadel EHS Lab Job Number: 454424

2 Peters Canyon Road Location: 1396 Fifth Street, Oakland, CA

Irvine, CA 92606 Date Received: 12/03/21 Mike Pendergrass

This data package contains sample and QC results for nine air samples, requested for the above referenced project on 12/03/21. The samples were received intact.

#### Volatile Organics in Air by MS (EPA TO-15):

High ICAL percent RSD (relative standard deviation) was observed for 1,2,4-trichlorobenzene in the calibration analyzed 12/06/21 15:19; affected data was qualified with "b". High responses were observed for 2-hexanone and 1,2,4-trichlorobenzene in the ICV analyzed 12/06/21 22:57; affected data was qualified with "b". High responses were observed for 2-hexanone and 1,2,4-trichlorobenzene in the CCV analyzed 12/09/21 10:37; affected data was qualified with "b". High recoveries were observed for 2-hexanone and 1,2,4-trichlorobenzene in the BS/BSD for batch 279529; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. No other analytical problems were encountered.

#### Volatile Organics in Air GC (ASTM D1946):

High recoveries were observed for methane in the BS/BSD for batch 279272; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

#### Volatile Organics in Air GC - TO3 (EPA TO-3M):

No analytical problems were encountered.

F- 17			TTA	T T	1	Air Cl	hair of Cus	tody Re	cord	Turn	Around Ti	me (rus	(rush by advanced notice only)				nly)	
8		NI	$\Pi F$	LLI	I	Lab No:	4	54424		Standard:	х	5 Day:			3	Da,		
	A	NAL	YT	IC	a L	Page:	/	of	2	2 Day:		1 Day:			Cı	ustom T.	AT:	
	Enthal	py Analytical	- Berkeley				CUSTOME	R INFOR	MATION			PRO	JEC.	r inf	ORM	IATION		
	2323 5	th Street, Berkele	y, CA 94710			Company:	Citadel E	EHS			Name:				1396 l	Fifth Stre	eet	
		Phone 510-486-0	900			Report To:	Mike Pe	ndergrass			Number:							
Spec	ial Instructions:					Email:	mpend	dergrass(	ocitadele	hs.com	P.O. #:				084	49.1003		
7 .5		<u>.</u>	· . <del></del> ::	:	10	Address:	2 Peters	Canyon, Ir	vine, CA		Address:	: ::=== :	1	396 T	ifth-St	reet <del>,</del> Oa	kland	, CA
						Phone:	818-296	-9405			Global ID:				T100	0001709	<del>)</del> 5	
						Fax:					Sampled By:	lin	m k	'am.f	EN Tirr	1-Larson		
					•	•									Analy	sis Requ	Jested	Ŀ
1															346		ľ	
i															ASTM D1946			
-			Туре	Equipm	ent Info	rmation			Sampling	Information			ĺ					
			(I) Indoor		Size	Flow	Sample	Sample	Vacuum	Sample	Sample	Vacuum	SIM	TPHg TO-3	Fixed Gases/Helium			
	Sample ID		(A) Ambient (SV) Soil Vapor		(1L, 3L,	Controller	Start	Start	Start ("Hg)	End	End	End ("Hg)	TO-15	H	d Gase			
			(S) Source		6L, 15L)	ID	Date	Time	1 1161	Date	Time	( 1.6/	욘	립	Fixed	11		1
1	B-27-2.5V		SV	Closon	1L	A10001	12-2-21	1047	27	12-2-21	1055	5						
2	B-24-5V		SV	C10082	1L	A10119	12-2-21	1119	30	12-2-21	1136	16	X	시	X	Lon	1/	low
3	B-23-1.5V		SV	C10568	1L	A10199	12-2-2/	1222		Nos	Jample						afe	
4	B-23-1.5V	Tup	SV	C10350	1L	A10199	12-2-21	1222		<u>'</u>	1			Ш		1	rit	er
5	B-20-5V		SV	C10359	1L	AIDIOZ			<del> </del>	<del> </del>	1355	5	X	X	<u> </u>	$\perp \perp$	<u></u>	
6	13-19-3,5V	! 	sv	10/0564	1L	A30003	12-2-21		Wat	er 1	b Sampl	و		Ш		14	ri Pe	*
7			SV		1L						,		L		_	$\bot \bot$	$\bot$	$\bot \bot$
8			SV		1L								L			$\perp \perp$		
9			SV		1L					<u> </u>				$\sqcup$		$+\!\!+\!\!\!+$	$\bot$	$\bot \bot$
10			SV		<b>1</b> L			<u> </u>										
			Signature			Print	Name			Company /						Z Tim		
1 Re	linquished By:	Ting	Mil		12	un haus	best			tadel	EHS			2-i	-	150		
¹ Re	ceived By:	<i>(</i>	4		100	HA-BAI	SEHMA	7J	EA			/ ત્ર	<u>/</u> :	2/	<u>ó1</u>		50	
<sup>2</sup> Re	linquished By:	Mell	m		M	i'snel	Gamboo	١	41				12	121	121	180		
<sup>2</sup> Re	ceived By:	UN	RAS	<u> </u>	N	IK	9		EA	1		1):	<u>, l</u>	<i>3 </i>	2	<u>U/</u>	<u>. 5</u> {	5 mm
³ Re	linquished By:		•															
³ Re	ceived By:										<u></u>							

						Air C	hair of Cus	tody Red	ord	Turn	Around Ti	ime (rus	h by	/ ad	vanc	ed potic	e only	<u>/)</u>
		INT	HA	LLF	ľ	Lab No:	1	15442	4	Standard:	х	5 Day:			3	Da,	T	
	A	NAL	YT	IC.	AL	Page:	1/	of	2	2 Day:		1 Day:	ļ		c	Custom TA	Γ:	
	Enthal	py Analytical					CUSTOME	R INFOR	MATION	<u></u>		PRO	JECT	INF	ORN	NOITAN	<b></b>	
		th Street, Berkele	_			Company:	Citadel E	HS			Name:				1396	Fifth Stree	et .	
		Phone 510-486-0	900			Report To:	Mike Pe	ndergrass			Number:							
Spe	cial Instrucțions:	1 0	- 11			Email:	mpend	lergrass@	ocitadele	hs.com	P.O.#:				08	349.1003		
1	/ Please Yn	ovide ke	Suits D	¥ • • • • • • • • • • • • • • • • • • •	13	Address:	2 Peters	Canyon, Ir	vine, CA		Address:	TT 15 -	1	396-F	ifth S	treet, Oak	and, C/	Α-
	Please Pri Thursday,	December	911			Phone:	818-296	-9405			Global ID:				T100	00017095		
						Fax:					Sampled By	: 11.	n Lo	umbe	:M <del>eti</del> r	n Larson		
					'										Anal	ysis Reque	sted	
															TM D1946			
	<u>.</u>		Туре	Equipn	ent info	rmation			Sampling	Information					um ASI			
	Sample ID		(I) Indoor (A) Ambient (SV) Soil Vapor (S) Source	Canister ID	Size (1L, 3L, 6L, 15L)	Flow Controller ID	Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	Sample End Time	Vacuum End ("Hg)	TO-15 SIM	TPHg TO-3	Fixed Gases/Helium ASTM D1946			
1	-B26-5V	-	sv	C10534	1L	A10056	12-2-21		-									
2	1325-3V		sv	C10705	1L	A10063	12-2-21	11:12	-29"	12-2-21	1120	-5"	Х	χ	у			
3	B22-1.5V	/	sv	C10069		A10200		11:45	5 -29"	12-2-21	1151	- 5"	Υ	X	у			
4	B17-3,51		sv	C10573	1L	A10022	12-2-21	13:11	-30"	12-2-21	1335	- 5"	Х	Х	χ			
5	B17-3.51		sv	C10581	1L	A10022	12-2-21	13:11	-30"	12-2-21	1335	-5"	Х	χ	x			
6	B18-1.51	/	sv	C10793	1L	A 10101	12-2-21	14.09	7 ~30"	12-2-21	1417	-5"	X	х	х		igsquare	
7	B27-5V.		sv	C10030	<b>1</b> L	A10801	12-2-21	15:10	-30"	12-2-21	1518	-4"	X	X	X		44	
8			sv		1L								<u> </u>		$\bot$		$\bot \bot$	
9			sv		1L							<u> </u>	_				$\perp \perp$	
10			sv		1L					<u></u>		<u> </u>			丄			
		9	Signature			Print	Name			Company /						te / Time		
1 Re	elinquished By:	Tin to	mlit	· 	Tive	n bounk	best		<u>Cita</u>	ide / E	E#3		2-	2-	21	153	2	
1 R	eceived By:		H,		150/	HIA BA	MIGHM	an	EA				<u> </u>	2/	24	155		
<sup>2</sup> Re	elinquished By:	1	fre	1	1	1, guil	Con mo	en	4,		<del>,</del>			_	121	1 680		ا و ح
<sup>2</sup> R	eceived By:	ha	16 ls			NIBI	<u> </u>		E,	<u>H</u>		J d	2/	<i>3)</i>	2	[7	5 ?	5 WY
3 Re	elinquished By:		•			•												
3 Re	eceived By:																	



#### SAMPLE ACCEPTANCE CHECKLIST

11				
Section 1		<u> </u>		
Client: Citadal EHŞ	Project: 1396 Fifth Street			
Date Received: 12/3/21	Sampler's Name Present:	✓ Yes	No	
Section 2	,			
Sample(s) received in a cooler? Yes, How many?	No (skip section 2)	Sample	e Temp (°C) (No Cooler)	:AMB
Sample Temp (°C); One from each cooler: #1:	#2: #3:	#4:		
(Acceptance range is <6°C but not frazen (for Microbiology samples, ac	ceptance range is < 10°C but not frozen). It i			s collected
the same day as sample receipt to have a higher temp Shipping Information:	perature as long as there is evidence that coo	ling has beg	un.)	
Section 3				
Was the cooler packed with: Ice Ice Pack	Styrof	oam		
Cooler Temp (°C):, #1:#2:	#3:	#4:	******	
Section 4		YES	NO	N/A
Was a COC received?		~	-	
Are sample IDs present?		~		
Are sampling dates & times present?		~		
Is a relinquished signature present?		V		
Are the tests required clearly indicated on the COC?		~		
Are custody seals present?			V	
If custody seals are present, were they intact?				V
Are all samples sealed in plastic bags? (Recommende	ed for Microbiology samples)			V
Did all samples arrive intact? If no, indicate in Section	4 below.	~		
Did all bottle labels agree with COC? (ID, dates and ti	mes)	V		5
Were the samples collected in the correct containers	for the required tests?	V		
Are the containers labeled with the correct pres	servatives?			V
ls there headspace in the VOA vials greater than 5-6।				V
Was a sufficient amount of sample submitted for the	requested tests?	<b>V</b>		
Section 5 Explanations/Comments				
11				
Section 6				
For discrepancies, how was the Project Manager noti	fied? Verbal PM Initials: Email (email sent to/o			<del></del>
Project Manager's়response:				
<u> </u>				
Completed By:	Date: 12(3/2	2/		

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal
Sample Acceptance Checklist – Rev 4, 8/8/2017



	LNIDALI	-		Lab No:	1	454424		Standard:	×	5 Day:		3 Da,	
ZY	ALYT	V		Page:		of	2	2 Day:		1 Day:		Custom TAT:	Ë
Enthalpy An	Enthalpy Analytical - Berkeley				CUSTOME	CUSTOMER INFORMATION	ATION			PROJ	PROJECT INFORMATION	RMATION	
2323 5th Stre	2323 5th Street, Berkeley, CA 94710			Company:	Citadel EHS	웊			Name:		136	1396 Fifth Street	at
Phone	Phone 510-486-0900			Report To:	Mike Per	Mike Pendergrass			Number:				
Special Instructions:		1		Email:	mpend	mpendergrass@citadelehs.com	itadelel	s.com	P.O.#:			0849.1003	
4-14-ease. £royle	A CANALIA RY		11	Address	2 Peters	2 Peters Canyon, Irvine, CA	ie, CA		Address:	11 .		1396 Fifth Street, Gakland, CA	land, CA
Thursday, December 4.	ember 4"	1		Phone:	818-296-9405	9405			Global ID:		T.	T10000017095	
		(		Fax:					Sampled By:		Tim Lambertotim tarson	fin tarson	
											An	Analysis Requested	ested
											TM D1946		
	Type	Equipm	ipment Information	mation	l	Sa	mpling In	Sampling Information			•		
Ciolomes	(I) Indoor		Size	How	Sample	4	Vacuum	Sample	Sample	Vacuum	E-01	-	
	(S) Source (S) Source	Canister ID	(11, 31, 61, 15L)	Controller ID	Start	Start	Start ("Hg)	End Date	End	End ("Hg)	TO-15 Fred Gas		
1 -826 -51	SS	110534	Ħ	A16056 12-2-21	12-2-21		٠						
2 525-31	SV	C10705	11	A10063	12-2-21	11:12	-36."	12-2-21	1120	-5"	XXX		
3 B22-1.5V	SV	८१००६४	11	A10200	12-2-31	11:42	-3611	12-2-21	1121	-5"	X X		
4 B17-3,5V	SV	C10573	11	AICORA	12-2-21	13:11		12-2-21	1335	-5"	×××		
5 B17-3.5 VD	NS SA	C10541	11	ADORA	12-2-21	13:11	.æ-	12-2-21	1335	15.	× ×		
6 B18-15V	NS	C10793	11	_	12-2-21	14:09	-30"	12-2-21	1417	-5"	×		
1 (BA7-54D)	NS Y	C 10030	11		18-2-21	15.10	"S-	12-2-21	1518	-4"	メメメ		
8	\ \ \ \ \ \ \		11										
9 B27-25VV	vs /(		11										
10	SV		11								i O		
	Signature			Print Name	Jame			Company / Title	Title		Õ	Date / Time	
Relinquished By:	- And R	,	Tion	i bawbe,	this	7	"tada	1 / ch	543	13	2-2-21	1153	R
Received By:		-	150	PMH-BA	BANGHMAN	m	EN			الم	10/21	$ \top $	
<sup>2</sup> Relinquished By:	Mhu		ર	1, Sui/ (	bon bon	-	4	1		-1	2/2/2	1 1807	(
Received By:	162820			S WK	0		13	4		1	1332	7	155 Or
<sup>3</sup> Relinquished By:										-			



Mike Pendergrass Citadel EHS 2 Peters Canyon Road Irvine, CA 92606

Lab Job #: 454424 Location: 1396 Fifth Street, Oakland, CA

Date Received: 12/03/21

Sample ID: B25-3V Lab ID: 454424-001 Collected: 12/02/21 11:20

Matrix: Air

454424-001 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946								
Prep Method: METHOD								
Helium	4.8	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	48,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	76	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	760,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15 Prep Method: METHOD								
Freon 12	0.43	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 12	2.1	ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 114	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 114	ND	ug/m3	2.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloromethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloromethane	ND	ug/m3	0.83	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Chloride	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Chloride	ND	ug/m3	1.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromomethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromomethane	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroethane	ND	ug/m3	1.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichlorofluoromethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichlorofluoromethane	ND	ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethene	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 113	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 113	ND	ug/m3	3.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Acetone	20	ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Acetone	48	ug/m3	4.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Disulfide	3.5	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL



		Allalysis r			<i>/</i> / 4344			
54424-001 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Carbon Disulfide	11	ug/m3	1.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Isopropanol (IPA)	ND	ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Isopropanol (IPA)	ND	ug/m3	4.9	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Methylene Chloride	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Methylene Chloride	ND	ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,2-Dichloroethene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
MTBE	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
MTBE	ND	ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
n-Hexane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
n-Hexane	ND	ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethane	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Acetate	ND	ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Acetate	ND	ug/m3	7.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,2-Dichloroethene	2.8	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,2-Dichloroethene	11	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Butanone	2.2	ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Butanone	6.4	ug/m3	5.9	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroform	2.9	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroform	14	ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1-Trichloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1-Trichloroethane	ND	ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Tetrachloride	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Tetrachloride	ND	ug/m3	2.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzene	1.0	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzene	3.2	ug/m3	1.3	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloroethane	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichloroethene	0.77	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichloroethene	4.1	ug/m3	2.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloropropane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloropropane	ND	ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromodichloromethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromodichloromethane	ND	ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Methyl-2-Pentanone	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Methyl-2-Pentanone	ND	ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Toluene	0.99	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Toluene	3.7	ug/m3	1.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2-Trichloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Tetrachloroethene	14	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
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454424-001 Analyte		Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemis
Tetrachloroethene	93	ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Hexanone	ND	ppbv	1.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Hexanone	ND	ug/m3	4.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Dibromochloromethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Dibromochloromethane	ND	ug/m3	3.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dibromoethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dibromoethane	ND	ug/m3	3.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chlorobenzene	ND	ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Ethylbenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Ethylbenzene	ND	ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
m,p-Xylenes	0.98	ppbv	0.80	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
m,p-Xylenes	4.2	ug/m3	3.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
o-Xylene	0.58	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
o-Xylene	2.5	ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Styrene	ND	ppbv	0.40		279485	12/08/21 22:58	12/08/21 22:58	DJL
Styrene	ND	ug/m3	1.7		279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromoform	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromoform	ND	ug/m3	4.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2,2-Tetrachloroethane	ND		2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
		ug/m3			279485			DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.40	2		12/08/21 22:58	12/08/21 22:58	
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Ethyltoluene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Ethyltoluene	ND	ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trimethylbenzene	0.59	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trimethylbenzene	2.9	ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,4-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzyl chloride	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzyl chloride	ND	ug/m3	2.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	3.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Hexachlorobutadiene	ND	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Hexachlorobutadiene	ND	ug/m3	4.3	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Xylene (total)	1.6	ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Xylene (total)	6.8	ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Surrogates		- 9,9	Limits				-:: <b>-</b>	
Bromofluorobenzene	100%	%REC	60-140	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Method: EPA TO-3M		, = 0		_				



454424-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
TPH Gasoline	0.21		ppmv	0.10	4	279377	12/07/21 13:53	12/07/21 13:53	LJB
TPH Gasoline	860		ug/m3	410	4	279377	12/07/21 13:53	12/07/21 13:53	LJB



Sample ID: B22-1.5V Lab ID: 454424-002 Collected: 12/02/21 11:51

Matrix: Air

454424-002 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946								
Prep Method: METHOD								
Helium	5.1	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	51,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	21	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	210,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	74	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	740,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15								
Prep Method: METHOD								
Freon 12	0.58	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 12	2.9	ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 114	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 114	ND	ug/m3	2.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloromethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloromethane	ND	ug/m3	0.83	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Chloride	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Chloride	ND	ug/m3	1.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromomethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromomethane	ND	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroethane	ND	ug/m3	1.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichlorofluoromethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichlorofluoromethane	ND	ug/m3	2.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethene	ND	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 113	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 113	ND	ug/m3	3.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Acetone	60	ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Acetone	140	ug/m3	4.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Disulfide	3.9	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Disulfide	12	ug/m3	1.2		279485	12/08/21 23:47	12/08/21 23:47	DJL
Isopropanol (IPA)	ND	ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Isopropanol (IPA)	ND	ug/m3	4.9	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Methylene Chloride	0.66	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Methylene Chloride	2.3	ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
wearylene Onlonde	2.3	ug/iiio	1.4		213403	12/00/21 20.47	12/00/21 20.47	DUL



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54424-002 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
MTBE	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
MTBE	ND	ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
n-Hexane	1.4	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
n-Hexane	5.0	ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethane	ND	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Acetate	ND	ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Acetate	ND	ug/m3	7.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,2-Dichloroethene	0.68	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,2-Dichloroethene	2.7	ug/m3			279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Butanone	5.3	ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Butanone	16	ug/m3	5.9	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroform	10	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroform	51	ug/m3		2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1-Trichloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1-Trichloroethane	ND ND		2.2	2	279485	12/08/21 23:47		DJL
Carbon Tetrachloride		ug/m3					12/08/21 23:47	
	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Tetrachloride	ND	ug/m3	2.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzene	2.8	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzene	9.0	ug/m3	1.3	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloroethane	ND	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichloroethene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichloroethene	ND	ug/m3	2.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloropropane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloropropane	ND	ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromodichloromethane	0.89	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromodichloromethane	6.0	ug/m3	2.7	2		12/08/21 23:47	12/08/21 23:47	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Methyl-2-Pentanone	1.0	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Methyl-2-Pentanone	4.1	ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Toluene	2.0	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Toluene	7.6	ug/m3	1.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2-Trichloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Tetrachloroethene	4.2	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Tetrachloroethene	28	ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Hexanone	ND	ppbv	1.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Hexanone	ND	ug/m3	4.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Dibromochloromethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Dibromochloromethane	ND	ug/m3	3.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
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454424-002 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dibromoethane	ND	ug/m3	3.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chlorobenzene	ND	ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Ethylbenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Ethylbenzene	ND	ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
m,p-Xylenes	1.2	ppbv	0.80	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
m,p-Xylenes	5.0	ug/m3	3.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
o-Xylene	0.58	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
o-Xylene	2.5	ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Styrene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Styrene	ND	ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromoform	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromoform	ND	ug/m3	4.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Ethyltoluene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Ethyltoluene	ND	ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trimethylbenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trimethylbenzene	ND	ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,4-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzyl chloride	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzyl chloride	ND	ug/m3	2.1	2		12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	3.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Hexachlorobutadiene	ND	ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Hexachlorobutadiene	ND	ug/m3	4.3	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Xylene (total)	1.7	ppbv	0.40		279485	12/08/21 23:47	12/08/21 23:47	DJL
Xylene (total)	7.5	ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Surrogates		2.9,1110	Limits					
Bromofluorobenzene	98%	%REC	60-140	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
	33,0	701.120				12,00,2120.17	,	
Method: EPA TO-3M	0.070		0.050		070004	10/06/01 01:55	10/06/01 01:55	I ID
TPH Gasoline	0.078	ppmv	0.050	2		12/06/21 21:55	12/06/21 21:55	LJB
TPH Gasoline	320	ug/m3	200	2	279284	12/06/21 21:55	12/06/21 21:55	LJB



Sample ID: B17-3.5V Lab ID: 454424-003 Collected: 12/02/21 13:35

Matrix: Air

454424-003 Analyte	Result	Qual I	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Helium	0.51	N	/ol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	5,100	ļ	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	N	/lol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ŀ	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	N	/lol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ŀ	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22	N	/ol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000	F	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	N	/ol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	F	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77	N	/lol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000	1	opmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15 Prep Method: METHOD									
Freon 12	0.50		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 12	2.5	ι	ıg/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 114	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 114	ND	ι	ıg/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloromethane	ND	L	ıg/m3	0.74	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Chloride	ND	L	ıg/m3	0.92	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromomethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromomethane	ND	ι	ıg/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroethane	ND	L	ıg/m3	0.95	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichlorofluoromethane	1.2		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichlorofluoromethane	7.0	L	ıg/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethene	ND		ıg/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 113	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 113	ND	L	ıg/m3	2.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Acetone	29		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Acetone	69	L	ıg/m3	4.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Disulfide	3.5		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Disulfide	11		 ıg/m3	1.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Isopropanol (IPA)	3.0		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Isopropanol (IPA)						279485	12/09/21 00:36	12/09/21 00:36	DJL
100p10pa1101 (11 7 t)	7.4	ι	ıg/m3	4.4	1.8	2/3403	12/03/21 00.30	12/03/21 00.30	DUL
Methylene Chloride	7.4 0.52		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL



		Allalysis n	ıcsuıı	3 IC	n 4544	<b>24</b>		
4424-003 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
MTBE	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
MTBE	ND	ug/m3	1.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
n-Hexane	11	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
n-Hexane	40	ug/m3	1.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Acetate	ND	ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Acetate	ND	ug/m3	6.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,2-Dichloroethene	0.56	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,2-Dichloroethene	2.2	ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Butanone	7.6	ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Butanone	22	ug/m3	5.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroform	4.4	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroform	21	ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1-Trichloroethane	ND	ug/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Tetrachloride	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Tetrachloride	ND	ug/m3	2.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzene	2.9		0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
		ppbv	1.2	1.8	279485			DJL
Benzene 1.0 Diablareathana	9.3	ug/m3				12/09/21 00:36	12/09/21 00:36	
1,2-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichloroethene	ND	ug/m3	1.9	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloropropane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloropropane	ND	ug/m3	1.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromodichloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromodichloromethane	ND	ug/m3	2.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Methyl-2-Pentanone	0.69	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Methyl-2-Pentanone	2.8	ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Toluene	2.4	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Toluene	9.1	ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Tetrachloroethene	2.1	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Tetrachloroethene	14	ug/m3	2.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Hexanone	ND	ppbv	0.90	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Hexanone	ND	ug/m3	3.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Dibromochloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Dibromochloromethane	ND	ug/m3	3.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL



		Allalysis	icsuit	3 10	רדטד וי			
454424-003 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dibromoethane	ND	ug/m3	2.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chlorobenzene	ND	ug/m3	1.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Ethylbenzene	0.93	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Ethylbenzene	4.0	ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
m,p-Xylenes	1.9	ppbv	0.72	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
m,p-Xylenes	8.1	ug/m3	3.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
o-Xylene	0.79	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
o-Xylene	3.4	ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Styrene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Styrene	ND	ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromoform	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromoform	ND	ug/m3	3.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Ethyltoluene	0.45	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Ethyltoluene	2.2	ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3,5-Trimethylbenzene	0.74	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3,5-Trimethylbenzene	3.6	ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trimethylbenzene	1.1	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trimethylbenzene	5.6	ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,4-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzyl chloride	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzyl chloride	ND	ug/m3	1.9	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	2.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Hexachlorobutadiene	ND	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Hexachlorobutadiene	ND	ug/m3	3.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Xylene (total)	2.7	ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Xylene (total)	12	ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Surrogates	12	ug/iiio	Limits	1.0	273703	12/03/21 00:00	12/03/21 00:00	
Bromofluorobenzene	101%	%REC	60-140	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
	101/0	/31 ILO	00-140	1.0	213703	12/03/21 00.00	12/03/21 00.00	DUL
Method: EPA TO-3M			0.045	4.0	07000 /	10/00/01 00 5	10/00/01 00 5	
TPH Gasoline	0.76	ppmv	0.045	1.8	279284	12/06/21 22:51	12/06/21 22:51	LJB
TPH Gasoline	3,100	ug/m3	180	1.8	279284	12/06/21 22:51	12/06/21 22:51	LJB



454424-004 Analyte

#### **Analysis Results for 454424**

Sample ID: B17-3.5VD Lab ID: 454424-004 Collected: 12/02/21 13:35

RL DF

**Batch** 

**Prepared** 

**Analyzed** 

Chemist

Matrix: Air

**Units** 

Result Qual

						•	•	
Method: ASTM D1946 Prep Method: METHOD								
Helium	0.43	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	4,300	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
· · · · · · · · · · · · · · · · · · ·	770,000	ррпп	1,000	1.0	270272	12/00/21	12/00/21	1011 15
Method: EPA TO-15 Prep Method: METHOD								
Freon 12	0.49	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 12	2.4	ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 114	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 114	ND	ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloromethane	ND	ug/m3	0.74	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Chloride	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Chloride	ND	ug/m3	0.92	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromomethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromomethane	ND	ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroethane	ND	ug/m3	0.95	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichlorofluoromethane	1.3	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichlorofluoromethane	7.2	ug/m3	2.0	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 113	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 113	ND	ug/m3	2.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Acetone	36	ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Acetone	87	ug/m3	4.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Disulfide	3.3	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Disulfide	10	ug/m3	1.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Isopropanol (IPA)	3.0	ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
150 DI UDANUN NE AN		PP~.						
1 1 ( )		ua/m3	4.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJI
Isopropanol (IPA)  Methylene Chloride	7.5	ug/m3	4.4 0.36	1.8	279485 279485	12/09/21 01:25 12/09/21 01:25	12/09/21 01:25 12/09/21 01:25	DJL DJL



		Allalysis F	ie5uii	<b>5</b> IC	n 4544	24		
4424-004 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
MTBE	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
MTBE	ND	ug/m3	1.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
n-Hexane	3.3	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
n-Hexane	11	ug/m3	1.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Acetate	ND	ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Acetate	ND	ug/m3	6.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,2-Dichloroethene	0.51	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,2-Dichloroethene	2.0	ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Butanone	4.2	ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Butanone	12	ug/m3	5.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroform	4.4	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroform	22	ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1-Trichloroethane	ND ND		2.0	1.8	279485	12/09/21 01:25		DJL
Carbon Tetrachloride	ND ND	ug/m3	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25 12/09/21 01:25	DJL
		ppbv						DJL
Carbon Tetrachloride	ND	ug/m3	2.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	
Benzene	2.9	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzene	9.2	ug/m3	1.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichloroethene	ND	ug/m3	1.9	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloropropane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloropropane	ND	ug/m3	1.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromodichloromethane	0.65	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromodichloromethane	4.4	ug/m3	2.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Methyl-2-Pentanone	0.62	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Methyl-2-Pentanone	2.5	ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Toluene	2.5	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Toluene	9.4	ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.0	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Tetrachloroethene	1.9	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Tetrachloroethene	13	ug/m3	2.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Hexanone	ND	ppbv	0.90	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Hexanone	ND	ug/m3	3.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Dibromochloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Dibromochloromethane	ND	ug/m3	3.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL



		Allalysis	locali	<b>.</b>		-		
454424-004 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dibromoethane	ND	ug/m3	2.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chlorobenzene	ND	ug/m3	1.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Ethylbenzene	0.52	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Ethylbenzene	2.2	ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
m,p-Xylenes	1.6	ppbv	0.72	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
m,p-Xylenes	6.9	ug/m3	3.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
o-Xylene	0.71	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
o-Xylene	3.1	ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Styrene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Styrene	ND	ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromoform	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromoform	ND	ug/m3	3.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Ethyltoluene	0.40	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Ethyltoluene	2.0	ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3,5-Trimethylbenzene	0.71	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3,5-Trimethylbenzene	3.5	ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trimethylbenzene	1.1	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trimethylbenzene	5.2	ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,4-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzyl chloride	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzyl chloride	ND	ug/m3	1.9	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	2.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Hexachlorobutadiene	ND	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Hexachlorobutadiene	ND	ug/m3	3.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Xylene (total)	2.3	ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Xylene (total)	10	ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Surrogates	.,	2.9,0	Limits					
Bromofluorobenzene	102%	%REC	60-140	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
	. 32 70	751.120				12,00,2101120	, _, 0 0, _ 1 0 1 1 2 0	
Method: EPA TO-3M	0.45	<b>19.</b> 10. 10. 10. 10.	0.045	1 0	070004	10/06/01 00:10	10/06/01 00:10	I ID
TPH Gasoline	0.45	ppmv	0.045	1.8	279284	12/06/21 23:19	12/06/21 23:19	LJB
TPH Gasoline	1,800	ug/m3	180	1.8	279284	12/06/21 23:19	12/06/21 23:19	LJB



454424-005 Analyte

#### **Analysis Results for 454424**

Sample ID: B18-1.5V Lab ID: 454424-005 Collected: 12/02/21 14:17

RL DF

**Batch** 

**Prepared** 

**Analyzed** 

Chemist

Matrix: Air

**Units** 

Result Qual

454424-005 Analyte	Result	Quai Units	KL	DΓ	Batch	Prepared	Anaiyzed	Cnemist
Method: ASTM D1946 Prep Method: METHOD								
Helium	0.61	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	6,100	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15 Prep Method: METHOD								
Freon 12	0.56	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 12	2.8	ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 114	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 114	ND	ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloromethane	ND	ug/m3	0.74	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Chloride	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Chloride	ND	ug/m3	0.92	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromomethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromomethane	ND	ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroethane	ND	ug/m3	0.95	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichlorofluoromethane	0.87	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichlorofluoromethane	4.9	ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 113	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 113	ND	ug/m3	2.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Acetone	12	ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Acetone	28	ug/m3	4.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Disulfide	2.3	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Disulfide	7.2	ug/m3	1.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
		ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Isopropanol (IPA)	1.9	ppov	_					
Isopropanol (IPA) Isopropanol (IPA)	1.9 4.6	ug/m3	4.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1 1 , ,					279485 279485	12/09/21 02:15 12/09/21 02:15	12/09/21 02:15 12/09/21 02:15	DJL DJL



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54424-005 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
MTBE	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
MTBE	ND	ug/m3	1.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
n-Hexane	0.69	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
n-Hexane	2.4	ug/m3	1.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Acetate	ND	ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Acetate	ND	ug/m3	6.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Butanone	ND	ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Butanone	ND	ug/m3	5.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroform	23	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroform	110	ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1-Trichloroethane Carbon Tetrachloride	ND	ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Tetrachloride	ND	ug/m3	2.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzene	0.84	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzene	2.7	ug/m3	1.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichloroethene	ND	ug/m3	1.9	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloropropane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloropropane	ND	ug/m3	1.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromodichloromethane	0.83	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromodichloromethane	5.5	ug/m3	2.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Methyl-2-Pentanone	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Methyl-2-Pentanone	ND	ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Toluene	0.70	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Toluene	2.6	ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Tetrachloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Tetrachloroethene	ND	ug/m3	2.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Hexanone	ND	ppbv	0.90	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Hexanone	ND	ug/m3	3.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Dibromochloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Dibromochloromethane	ND	ug/m3	3.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
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		Allalysis	icsuit	3 10	רדטד וי			
454424-005 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dibromoethane	ND	ug/m3	2.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chlorobenzene	ND	ug/m3	1.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Ethylbenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Ethylbenzene	ND	ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
m,p-Xylenes	ND	ppbv	0.72	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
m,p-Xylenes	ND	ug/m3	3.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
o-Xylene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
o-Xylene	ND	ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Styrene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Styrene	ND	ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromoform	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromoform	ND	ug/m3	3.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Ethyltoluene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Ethyltoluene	ND	ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trimethylbenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trimethylbenzene	ND	ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,4-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzyl chloride	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzyl chloride	ND	ug/m3	1.9	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	2.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Hexachlorobutadiene	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Hexachlorobutadiene	ND	ug/m3	3.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Xylene (total)	ND	ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Xylene (total)	ND	ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Surrogates	110	29,1110	Limits		_, 0 100	. 2,00,21 02.10	72,00,21 02.10	
Bromofluorobenzene	99%	%REC	60-140	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
	33 /8	701120	00 170	1.0	270400	. 2,00,21 02.10	12,00,21 02.10	
Method: EPA TO-3M	0.11		0.045	1.0	070004	10/00/01 00 10	10/00/01 00 10	
TPH Gasoline	0.14	ppmv	0.045	1.8	279284	12/06/21 23:48	12/06/21 23:48	LJB
TPH Gasoline	580	ug/m3	180	1.8	279284	12/06/21 23:48	12/06/21 23:48	LJB



454424-006 Analyte

#### **Analysis Results for 454424**

Sample ID: B27-2.5VD Lab ID: 454424-006 Collected: 12/02/21 15:18

RL DF

**Batch** 

**Prepared** 

**Analyzed** 

Chemist

Matrix: Air

**Units** 

Result Qual

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Method: ASTM D1946								
Prep Method: METHOD	0.00	M-10/	0.40	1.0	070070	10/00/01	10/00/01	MDD
Helium	0.20	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	2,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	81	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	810,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15 Prep Method: METHOD								
Freon 12	0.56	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 12	2.8	ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 114	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 114	ND	ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloromethane	ND	ug/m3	0.74	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Chloride	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Chloride	ND	ug/m3	0.92	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromomethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromomethane	ND	ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroethane	ND	ug/m3	0.95	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichlorofluoromethane	0.69	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichlorofluoromethane	3.9	ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 113	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 113	ND	ug/m3	2.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Acetone	19	ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Acetone	44	ug/m3	4.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Disulfide	7.5	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Disulfide	23	ug/m3	1.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Distillat		ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Isopropanol (IDA)	NII )		1.0	1.0	£13403	12/03/21 03.04	12/03/21 03.04	DUL
Isopropanol (IPA)	ND			1 Ω	270/125	12/09/21 02:04	12/09/21 03:04	וו ח
Isopropanol (IPA) Isopropanol (IPA) Methylene Chloride	ND ND <b>0.57</b>	ug/m3	4.4 0.36	1.8 1.8	279485 279485	12/09/21 03:04 12/09/21 03:04	12/09/21 03:04 12/09/21 03:04	DJL DJL



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154424-006 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
MTBE	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
MTBE	ND	ug/m3	1.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
n-Hexane	2.6	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
n-Hexane	9.0	ug/m3	1.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Acetate	ND	ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Acetate	ND	ug/m3	6.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Butanone	2.0	ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Butanone	6.0	ug/m3	5.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroform	3.9	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroform	19	ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1-Trichloroethane Carbon Tetrachloride	ND	ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Tetrachloride	ND	ug/m3	2.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzene	1.8	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzene	5.9	ug/m3	1.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloroethane	ND	ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichloroethene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichloroethene	ND	ug/m3	1.9	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloropropane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloropropane	ND	ug/m3	1.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromodichloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromodichloromethane	ND	ug/m3	2.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Methyl-2-Pentanone	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Methyl-2-Pentanone	ND	ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Toluene	1.9	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Toluene	7.1	ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2-Trichloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Tetrachloroethene	1.3	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Tetrachloroethene	8.8	ug/m3	2.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Hexanone	ND	ppbv	0.90	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Hexanone	ND	ug/m3	3.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Dibromochloromethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Dibromochloromethane	ND	ug/m3	3.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
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454424-006 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dibromoethane	ND	ug/m3	2.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chlorobenzene	ND	ug/m3	1.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Ethylbenzene	0.36	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Ethylbenzene	1.6	ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
m,p-Xylenes	1.2	ppbv	0.72	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
m,p-Xylenes	5.4	ug/m3	3.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
o-Xylene	0.57	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
o-Xylene	2.5	ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Styrene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Styrene	ND	ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromoform	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromoform	ND	ug/m3	3.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Ethyltoluene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Ethyltoluene	ND	ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trimethylbenzene	0.63	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trimethylbenzene	3.1	ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,4-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzyl chloride	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzyl chloride	ND	ug/m3	1.9	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	2.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Hexachlorobutadiene	ND	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Hexachlorobutadiene	ND	ug/m3	3.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Xylene (total)	1.8	ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Xylene (total)	7.9	ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Surrogates		<u> </u>	Limits		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>	
Bromofluorobenzene	98%	%REC	60-140	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Method: EPA TO-3M					· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>	
TPH Gasoline	0.36	nnmy	0.045	1.8	279284	12/07/21 00:16	12/07/21 00:16	LJB
TPH Gasoline	1,500	ppmv	180	1.8	279284	12/07/21 00:16	12/07/21 00:16	LJB
1F11 GaSUIIIE	1,300	ug/m3	100	1.0	L13204	12/01/21 00.10	12/01/21 00.10	LJD



Sample ID: B-27-2.5V Lab ID: 454424-007 Collected: 12/02/21 10:55

Matrix: Air

454424-007 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946								
Prep Method: METHOD								
Helium	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	81	Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	810,000	ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15								
Prep Method: METHOD								
Freon 12	0.55	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 12	2.7	ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 114	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 114	ND	ug/m3	2.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloromethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloromethane	ND	ug/m3	0.83	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Chloride	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Chloride	ND	ug/m3	1.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromomethane	ND	ydqq	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromomethane	ND	ug/m3	1.6		279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroethane	ND	ug/m3	1.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichlorofluoromethane	0.63	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichlorofluoromethane	3.5	ug/m3	2.2		279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethene	ND ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 113	ND ND				279485		12/09/21 03:53	
	ND ND	ppbv ug/m3	0.40	2		12/09/21 03:53		DJL
Freon 113			3.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Acetone	14	ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Acetone	33	ug/m3	4.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Disulfide	5.4	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Disulfide	17	ug/m3	1.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Isopropanol (IPA)	ND	ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Isopropanol (IPA)	ND	ug/m3	4.9	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Methylene Chloride	0.48	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Methylene Chloride	1.7	ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
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4424-007 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
MTBE	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
MTBE	ND	ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
n-Hexane	1.9	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
n-Hexane	6.7	ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethane	ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Acetate	ND	ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Acetate	ND	ug/m3	7.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,2-Dichloroethene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,2-Dichloroethene	ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Butanone	ND	ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Butanone	ND	ug/m3	5.9		279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroform	3.2	ppbv	0.40		279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroform	16	ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1-Trichloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1-Trichloroethane	ND	ug/m3	2.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Tetrachloride	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Tetrachloride	ND	ug/m3	2.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzene	1.7	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzene	5.5		1.3	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
		ug/m3		2				DJL
1,2-Dichloroethane	ND	ppbv	0.40		279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloroethane Trichloroethene	ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	
Trichloroethene	ND	ug/m3	2.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloropropane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloropropane	ND	ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromodichloromethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromodichloromethane	ND	ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Methyl-2-Pentanone	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Methyl-2-Pentanone	ND	ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Toluene	1.6	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Toluene	5.9	ug/m3	1.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2-Trichloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Tetrachloroethene	0.83	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Tetrachloroethene	5.6	ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Hexanone	ND	ppbv	1.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Hexanone	ND	ug/m3	4.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Dibromochloromethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Dibromochloromethane	ND	ug/m3	3.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL



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454424-007 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dibromoethane	ND	ug/m3	3.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chlorobenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chlorobenzene	ND	ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Ethylbenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Ethylbenzene	ND	ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
m,p-Xylenes	1.0	ppbv	0.80	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
m,p-Xylenes	4.4	ug/m3	3.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
o-Xylene	0.47	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
o-Xylene	2.0	ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Styrene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Styrene	ND	ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromoform	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromoform	ND	ug/m3	4.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Ethyltoluene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Ethyltoluene	ND	ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trimethylbenzene	0.66	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trimethylbenzene	3.3	ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,4-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzyl chloride	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzyl chloride	ND	ug/m3	2.1	2		12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichlorobenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	3.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Hexachlorobutadiene	ND	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Hexachlorobutadiene	ND	ug/m3	4.3	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Xylene (total)	1.5	ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Xylene (total)	6.4	ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Surrogates			Limits					
Bromofluorobenzene	99%	%REC	60-140	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Method: EPA TO-3M	20,0	.33						J <b>_</b>
TPH Gasoline	0.31	nnmi	0.050	2	279284	12/07/21 00:44	12/07/21 00:44	LJB
TPH Gasoline TPH Gasoline		ppmv	0.050					
irn Gasoline	1,300	ug/m3	200	2	279284	12/07/21 00:44	12/07/21 00:44	LJB



Sample ID: B-24-5V Lab ID: 454424-008 Collected: 12/02/21 11:36

Matrix: Air

454424-008 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946								
Prep Method: METHOD								
Helium	ND	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Helium	ND	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Carbon Monoxide	ND	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Carbon Monoxide	ND	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Carbon Dioxide	ND	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Carbon Dioxide	ND	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Oxygen/Argon	12	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Oxygen/Argon	120,000	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Methane	0.66	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Methane	6,600	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Nitrogen	88	Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Nitrogen	880,000	ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Method: EPA TO-15								
Prep Method: METHOD								
Freon 12	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 12	ND	ug/m3	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 114	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 114	ND	ug/m3	4.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloromethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloromethane	ND	ug/m3	1.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Chloride	0.96	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Chloride	2.5	ug/m3	1.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromomethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromomethane	ND	ug/m3	2.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroethane	ND	ug/m3	1.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichlorofluoromethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichlorofluoromethane	ND	ug/m3	3.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethene	ND	ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 113	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 113	ND	ug/m3	4.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Acetone	4,000	ppbv	150	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Acetone	9,400	ug/m3	360	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Carbon Disulfide	13	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Disulfide	41	ug/m3	1.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Isopropanol (IPA)	22	ppbv	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Isopropanol (IPA)	53	ug/m3	7.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Methylene Chloride	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Methylene Chloride	ND	ug/m3	2.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
would be comorated and the com	ואט	ug/iiio	۷.۱	<u> </u>	210700	12/03/21 07.70	12/00/21 07.40	



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4424-008 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
trans-1,2-Dichloroethene	ND	ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
MTBE	0.84	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
MTBE	3.0	ug/m3	2.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
n-Hexane	61	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
n-Hexane	210	ug/m3	2.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethane	ND	ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Acetate	ND	ppbv	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Acetate	ND	ug/m3	11	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,2-Dichloroethene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,2-Dichloroethene	ND	ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Butanone	570	ppbv	150	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
2-Butanone	1,700	ug/m3	440	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Chloroform	1.3	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroform	6.3	ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1-Trichloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1-Trichloroethane	ND	ug/m3	3.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Tetrachloride	ND ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Tetrachloride	ND ND	ug/m3	3.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzene	870		3.0	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
		ppbv	96	150	279529			DJL
Benzene 1.0 Diable readhers	2,800	ug/m3				12/09/21 15:52	12/09/21 15:52	
1,2-Dichloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloroethane	ND 0.75	ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichloroethene	0.75	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichloroethene	4.0	ug/m3	3.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloropropane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloropropane	ND	ug/m3	2.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromodichloromethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromodichloromethane	ND	ug/m3	4.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,3-Dichloropropene	ND	ug/m3	2.7	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Methyl-2-Pentanone	45	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Methyl-2-Pentanone	180	ug/m3	2.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Toluene	200	ppbv	30	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Toluene	740	ug/m3	110	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
trans-1,3-Dichloropropene	ND	ug/m3	2.7	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2-Trichloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2-Trichloroethane	ND	ug/m3	3.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Tetrachloroethene	1.0	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Tetrachloroethene	6.9	ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Hexanone	27	ppbv	1.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Hexanone	110	ug/m3	6.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Dibromochloromethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Dibromochloromethane	ND	ug/m3	5.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL



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454424-008 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dibromoethane	ND	ug/m3	4.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chlorobenzene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chlorobenzene	ND	ug/m3	2.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Ethylbenzene	9.5	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Ethylbenzene	41	ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
m,p-Xylenes	26	ppbv	1.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
m,p-Xylenes	110	ug/m3	5.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
o-Xylene	12	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
o-Xylene	53	ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Styrene	2.8	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Styrene	12	ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromoform	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromoform	ND	ug/m3	6.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Ethyltoluene	1.5	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Ethyltoluene	7.3	ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3,5-Trimethylbenzene	3.0	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3,5-Trimethylbenzene	15	ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trimethylbenzene	5.1	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trimethylbenzene	25	ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3-Dichlorobenzene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3-Dichlorobenzene	ND	ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,4-Dichlorobenzene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,4-Dichlorobenzene	ND	ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzyl chloride	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzyl chloride	ND	ug/m3	3.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichlorobenzene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichlorobenzene	ND	ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	4.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Hexachlorobutadiene	ND	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Hexachlorobutadiene	ND	ug/m3	6.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Xylene (total)	38	ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Xylene (total)	160	ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Surrogates			Limits					
Bromofluorobenzene	104%	%REC	60-140	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Method: EPA TO-3M								
TPH Gasoline	8.5	ppmv	0.050	2	279377	12/07/21 17:01	12/07/21 17:01	LJB
TPH Gasoline	35,000	ug/m3	200	2	279377	12/07/21 17:01	12/07/21 17:01	LJB
II II Gasollile	33,000	ug/iiio	200		213311	12/01/21 11.01	12/01/21 11.01	



# **Analysis Results for 454424**

Sample ID: B-20-5V Lab ID: 454424-011 Collected: 12/02/21 13:55

Matrix: Air

454424-011 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946								
Prep Method: METHOD								
Helium	12	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	120,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	16	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	160,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	72	Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	720,000	ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15								
Prep Method: METHOD								
Freon 12	0.42	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 12	2.1	ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 114	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 114	ND	ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloromethane	0.56	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloromethane	1.1	ug/m3	0.74	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Chloride	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Chloride	ND	ug/m3	0.92	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromomethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromomethane	ND	ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroethane	ND	ug/m3	0.95	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichlorofluoromethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichlorofluoromethane	ND	ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethene	ND	ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 113	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 113	ND	ug/m3	2.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Acetone	30	ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Acetone	72	ug/m3	4.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Disulfide	11	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Disulfide	33	ug/m3	1.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Isopropanol (IPA)	ND	ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Isopropanol (IPA)	ND	ug/m3	4.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Methylene Chloride	0.62	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
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54424-011 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
MTBE	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
MTBE	ND	ug/m3	1.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
n-Hexane	5.2	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
n-Hexane	18	ug/m3	1.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethane	ND	ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Acetate	ND	ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Acetate	ND	ug/m3	6.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,2-Dichloroethene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Butanone	7.0	ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Butanone	21	ug/m3	5.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroform	0.83	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroform	4.1	ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1-Trichloroethane	ND		0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1-Trichloroethane		ppbv						
<u> </u>	ND	ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Tetrachloride	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Tetrachloride	ND 5.0	ug/m3	2.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzene	5.2	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzene	17	ug/m3	1.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloroethane	ND	ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichloroethene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichloroethene	ND	ug/m3	1.9	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloropropane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloropropane	ND	ug/m3	1.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromodichloromethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromodichloromethane	ND	ug/m3	2.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Methyl-2-Pentanone	3.3	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Methyl-2-Pentanone	14	ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Toluene	2.7	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Toluene	10	ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,3-Dichloropropene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2-Trichloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2-Trichloroethane	ND	ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Tetrachloroethene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Tetrachloroethene	ND	ug/m3	2.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Hexanone	ND	ppbv	0.90	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Hexanone	ND	ug/m3	3.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Dibromochloromethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Dibromochloromethane	ND	ug/m3	3.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
		<u> </u>				· · · · · · · · · · · · · · · · · · ·		



		Allulysis i	icsuit	3 10	'I <del>T</del> JTT			
454424-011 Analyte	Result	Qual Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dibromoethane	ND	ug/m3	2.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chlorobenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chlorobenzene	ND	ug/m3	1.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Ethylbenzene	1.0	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Ethylbenzene	4.5	ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
m,p-Xylenes	3.7	ppbv	0.72	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
m,p-Xylenes	16	ug/m3	3.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
o-Xylene	1.4	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
o-Xylene	6.1	ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Styrene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Styrene	ND	ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromoform	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromoform	ND	ug/m3	3.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1,2-Tetrachloroethane	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1,2-Tetrachloroethane	ND	ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Ethyltoluene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Ethyltoluene	ND	ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3,5-Trimethylbenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3,5-Trimethylbenzene	ND	ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trimethylbenzene	0.70	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trimethylbenzene	3.4	ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3-Dichlorobenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3-Dichlorobenzene	ND	ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,4-Dichlorobenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,4-Dichlorobenzene	ND	ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzyl chloride	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzyl chloride	ND	ug/m3	1.9	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichlorobenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichlorobenzene	ND	ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trichlorobenzene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trichlorobenzene	ND	ug/m3	2.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Hexachlorobutadiene	ND	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Hexachlorobutadiene	ND	ug/m3	3.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Xylene (total)	5.1	ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Xylene (total)	22	ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Surrogates		ag/mo	Limits			. 2,00,21 10.01	. 2,00,21 10.01	202
Bromofluorobenzene	100%	%REC	60-140	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
	100/0	/011LO	00 170	1.0	2,0020	. 2,00,21 10.01	. 2,00,21 10.01	DUL
Method: EPA TO-3M			0.050		070077	10/07/04 17 00	10/07/04 17 00	1.15
TPH Gasoline	1.4	ppmv	0.050	2		12/07/21 17:29	12/07/21 17:29	LJB
TPH Gasoline	5,600	ug/m3	200	2	279377	12/07/21 17:29	12/07/21 17:29	LJB





Type: Lab Control Sample Lab ID: QC959202 Batch: 279272

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

QC959202 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Helium	8.686	10.00	mol %	87%	85-115
Carbon Monoxide	7.528	7.000	mol %	108%	85-115
Carbon Dioxide	13.90	15.00	mol %	93%	85-115
Oxygen/Argon	4.260	4.000	mol %	107%	85-115
Methane	4.652	4.000	mol %	116% *	85-115

Type: Lab Control Sample Duplicate Lab ID: QC959203 Batch: 279272

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

								RPD
QC959203 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
Helium	8.856	10.00	mol %	89%		85-115	2	10
Carbon Monoxide	7.527	7.000	mol %	108%		85-115	0	10
Carbon Dioxide	13.90	15.00	mol %	93%		85-115	0	10
Oxygen/Argon	4.258	4.000	mol %	106%		85-115	0	10
Methane	4.652	4.000	mol %	116%	*	85-115	0	10

Type: Blank Lab ID: QC959204 Batch: 279272

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

QC959204 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Helium	ND		mol %	0.10	12/06/21	12/06/21
Carbon Monoxide	ND		mol %	0.10	12/06/21	12/06/21
Carbon Dioxide	ND		mol %	0.10	12/06/21	12/06/21
Oxygen/Argon	ND		mol %	0.10	12/06/21	12/06/21
Methane	ND		mol %	0.10	12/06/21	12/06/21
Nitrogen	ND		mol %	0.10	12/06/21	12/06/21

Type: Sample Duplicate Lab ID: QC959205 Batch: 279272

Matrix (Source ID): Air (454375-001) Method: ASTM D1946 Prep Method: METHOD

		Source					
		Sample				RPD	
QC959205 Analyte	Result	Result	Units	Qual	RPD	Lim	DF
Helium	0.2610	0.2630	mol %		1	20	2
Carbon Monoxide	ND	ND	mol %			20	2
Carbon Dioxide	ND	ND	mol %			20	2
Oxygen/Argon	22.53	22.53	mol %		0	20	2
Methane	ND	ND	mol %		5	20	2
Nitrogen	77.19	77.19	mol %		0	20	2



Type: Sample Duplicate Lab ID: QC959206 Batch: 279272

Matrix (Source ID): Air (454424-001) Method: ASTM D1946 Prep Method: METHOD

		Source Sample				RPD	
QC959206 Analyte	Result	Result	Units	Qual	RPD	Lim	DF
Helium	4.844	4.844	mol %		0	20	2
Carbon Monoxide	ND	ND	mol %			20	2
Carbon Dioxide	ND	ND	mol %			20	2
Oxygen/Argon	19.17	19.18	mol %		0	20	2
Methane	ND	ND	mol %		0	20	2
Nitrogen	75.97	75.96	mol %		0	20	2

Type: Lab Control Sample Lab ID: QC959247 Batch: 279284

Matrix: Air Method: EPA TO-3M

QC959247 AnalyteResultSpikedUnitsRecoveryQualLimitsTPH Gasoline2.2882.500ppmv92%70-130

Type: Lab Control Sample Duplicate Lab ID: QC959248 Batch: 279284

Matrix: Air Method: EPA TO-3M

**RPD** QC959248 Analyte Spiked Units Recovery Qual Limits **RPD** Result Lim 70-130 TPH Gasoline 2.342 2.500 ppmv 94% 25

Type: Blank Lab ID: QC959249 Batch: 279284

Matrix: Air Method: EPA TO-3M

 QC959249 Analyte
 Result
 Qual
 Units
 RL
 Prepared
 Analyzed

 TPH Gasoline
 ND
 ppmv
 0.025
 12/06/21 13:25
 12/06/21 13:25

Type: Lab Control Sample Lab ID: QC959503 Batch: 279377

Matrix: Air Method: EPA TO-3M

QC959503 AnalyteResultSpikedUnitsRecoveryQualLimitsTPH Gasoline2.3412.500ppmv94%70-130

Type: Lab Control Sample Duplicate Lab ID: QC959504 Batch: 279377

Matrix: Air Method: EPA TO-3M

								RPD
QC959504 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
TPH Gasoline	2.343	2.500	ppmv	94%		70-130	0	25



Type: Blank Lab ID: QC959505 Batch: 279377

Matrix: Air Method: EPA TO-3M

 QC959505 Analyte
 Result
 Qual
 Units
 RL
 Prepared
 Analyzed

 TPH Gasoline
 ND
 ppmv
 0.025
 12/07/21 13:35
 12/07/21 13:35

Type: Lab Control Sample Lab ID: QC959514 Batch: 279383

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

QC959514 Analyte Result Spiked Units Recovery Qual Limits Helium 9.500 10.00 mol % 95% 85-115 Carbon Monoxide 4.900 5.000 mol % 98% 85-115 Carbon Dioxide 5.200 4.990 mol % 104% 85-115 3.400 Oxygen/Argon 3.400 mol % 100% 85-115 Methane 4.900 5.000 mol % 98% 85-115

Type: Lab Control Sample Duplicate Lab ID: QC959515 Batch: 279383

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

RPD QC959515 Analyte Result Spiked Units Recovery Qual Limits **RPD** Lim Helium 9.500 10.00 mol % 85-115 95% 10 Carbon Monoxide 5.000 5.000 mol % 100% 85-115 2 10 Carbon Dioxide 5.195 4.990 mol % 104% 85-115 0 10 Oxygen/Argon 3.400 3.400 mol % 100% 85-115 0 10 Methane 4.900 5.000 mol % 98% 85-115 10

Type: Blank Lab ID: QC959516 Batch: 279383

Matrix: Air Method: ASTM D1946 Prep Method: METHOD

QC959516 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Helium	ND		mol %	0.10	12/07/21	12/07/21
Carbon Monoxide	ND		mol %	0.10	12/07/21	12/07/21
Carbon Dioxide	ND		mol %	0.10	12/07/21	12/07/21
Oxygen/Argon	ND		mol %	0.10	12/07/21	12/07/21
Methane	ND		mol %	0.10	12/07/21	12/07/21
Nitrogen	ND		mol %	0.10	12/07/21	12/07/21



Type: Sample Duplicate Lab ID: QC959517 Batch: 279383

Matrix (Source ID): Air (454424-008) Method: ASTM D1946 Prep Method: METHOD

		Source Sample				RPD	
QC959517 Analyte	Result	Result	Units	Qual	RPD	Lim	DF
Helium	ND	ND	mol %		0	20	3
Carbon Monoxide	ND	ND	mol %			20	3
Carbon Dioxide	ND	ND	mol %		0	20	3
Oxygen/Argon	11.77	11.78	mol %		0	20	3
Methane	0.6500	0.6600	mol %		2	20	3
Nitrogen	87.57	87.55	mol %		0	20	3



Type: Lab Control Sample Lab ID: QC959783 Batch: 279485

Matrix: Air Method: EPA TO-15 Prep Method: METHOD

Matrix: All	Metri	ou: EPA I	Prep ivieti	Prep Method: METHOD			
OC050792 Analysta	Result	Cnikad	Units	Recovery	Oual	Limits	
QC959783 Analyte Freon 12	9.241	<b>Spiked</b> 10.00	ppbv	92%	Qual	70-130	
Freon 114	9.405	10.00	ppbv	94%		70-130	
Chloromethane	8.297	10.00	ppbv	83%		70-130	
Vinyl Chloride	9.517	10.00	ppbv	95%		70-130	
Bromomethane	10.49	10.00	ppbv	105%		70-130	
Chloroethane	9.245	10.00	ppbv	92%		70-130	
Trichlorofluoromethane	9.226	10.00		92%		70-130	
1,1-Dichloroethene	9.928	10.00	ppbv ppbv	99%		70-130	
Freon 113	9.683	10.00		97%		70-130	
Acetone	8.964	10.00	ppbv	90%		70-130	
			ppbv				
Carbon Disulfide	9.638 7.586	10.00	ppbv	96% 76%		70-130 70-130	
Isopropanol (IPA)		10.00	ppbv				
Methylene Chloride	8.322	10.00	ppbv	83%		70-130	
trans-1,2-Dichloroethene	9.358	10.00	ppbv	94%		70-130	
MTBE	10.26	10.00	ppbv	103%		70-130	
n-Hexane	10.10	10.00	ppbv	101%		70-130	
1,1-Dichloroethane	9.592	10.00	ppbv	96%		70-130	
Vinyl Acetate	10.63	10.00	ppbv	106%		70-130	
cis-1,2-Dichloroethene	9.882	10.00	ppbv	99%		70-130	
2-Butanone	10.34	10.00	ppbv	103%		70-130	
Chloroform	9.538	10.00	ppbv	95%		70-130	
1,1,1-Trichloroethane	9.606	10.00	ppbv	96%		70-130	
Carbon Tetrachloride	9.715	10.00	ppbv	97%		70-130	
Benzene	9.704	10.00	ppbv	97%		70-130	
1,2-Dichloroethane	9.353	10.00	ppbv	94%		70-130	
Trichloroethene	9.716	10.00	ppbv	97%		70-130	
1,2-Dichloropropane	9.513	10.00	ppbv	95%		70-130	
Bromodichloromethane	9.518	10.00	ppbv	95%		70-130	
cis-1,3-Dichloropropene	10.41	10.00	ppbv	104%		70-130	
4-Methyl-2-Pentanone	10.81	10.00	ppbv	108%		70-130	
Toluene	9.878	10.00	ppbv	99%		70-130	
trans-1,3-Dichloropropene	10.55	10.00	ppbv	106%		70-130	
1,1,2-Trichloroethane	9.726	10.00	ppbv	97%		70-130	
Tetrachloroethene	9.476	10.00	ppbv	95%		70-130	
2-Hexanone	11.01	10.00	ppbv	110%		70-130	
Dibromochloromethane	9.920	10.00	ppbv	99%		70-130	
1,2-Dibromoethane	9.754	10.00	ppbv	98%		70-130	
Chlorobenzene	9.601	10.00	ppbv	96%		70-130	
Ethylbenzene	10.25	10.00	ppbv	103%		70-130	
m,p-Xylenes	20.80	20.00	ppbv	104%		70-130	
o-Xylene	10.48	10.00	ppbv	105%		70-130	
Styrene	10.97	10.00	ppbv	110%		70-130	
10							



QC959783 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Bromoform	10.62	10.00	ppbv	106%	70-130
1,1,2,2-Tetrachloroethane	10.02	10.00	ppbv	100%	70-130
1,1,1,2-Tetrachloroethane	10.03	10.00	ppbv	100%	70-130
4-Ethyltoluene	11.02	10.00	ppbv	110%	70-130
1,3,5-Trimethylbenzene	11.12	10.00	ppbv	111%	70-130
1,2,4-Trimethylbenzene	10.79	10.00	ppbv	108%	70-130
1,3-Dichlorobenzene	9.931	10.00	ppbv	99%	70-130
1,4-Dichlorobenzene	10.12	10.00	ppbv	101%	70-130
Benzyl chloride	11.32	10.00	ppbv	113%	70-130
1,2-Dichlorobenzene	9.941	10.00	ppbv	99%	70-130
1,2,4-Trichlorobenzene	10.70	10.00	ppbv	107%	70-130
Hexachlorobutadiene	10.00	10.00	ppbv	100%	70-130
Surrogates					
Bromofluorobenzene	10.01	10.00	ppbv	100%	60-140



Type: Lab Control Sample Duplicate Lab ID: QC959784 Batch: 279485

Matrix: Air Method: EPA TO-15 Prep Method: METHOD

	<b>-</b>			_			RPD
QC959784 Analyte	Result	Spiked	Units	Recovery Qu		RPD	Lim
Freon 12	9.292	10.00	ppbv	93%	70-130	1	30
Freon 114	9.472	10.00	ppbv	95%	70-130	1	30
Chloromethane	8.304	10.00	ppbv	83%	70-130	0	30
Vinyl Chloride	9.502	10.00	ppbv	95%	70-130	0	30
Bromomethane	10.61	10.00	ppbv	106%	70-130	1	30
Chloroethane	9.412	10.00	ppbv	94%	70-130	2	30
Trichlorofluoromethane	9.348	10.00	ppbv	93%	70-130	1	30
1,1-Dichloroethene	9.908	10.00	ppbv	99%	70-130	0	30
Freon 113	9.808	10.00	ppbv	98%	70-130	1	30
Acetone	8.980	10.00	ppbv	90%	70-130	0	30
Carbon Disulfide	9.730	10.00	ppbv	97%	70-130	1	30
Isopropanol (IPA)	7.642	10.00	ppbv	76%	70-130	1	30
Methylene Chloride	8.458	10.00	ppbv	85%	70-130	2	30
trans-1,2-Dichloroethene	9.366	10.00	ppbv	94%	70-130	0	30
MTBE	10.27	10.00	ppbv	103%	70-130	0	30
n-Hexane	10.13	10.00	ppbv	101%	70-130	0	30
1,1-Dichloroethane	9.632	10.00	ppbv	96%	70-130	0	30
Vinyl Acetate	10.71	10.00	ppbv	107%	70-130	1	30
cis-1,2-Dichloroethene	10.03	10.00	ppbv	100%	70-130	1	30
2-Butanone	10.26	10.00	ppbv	103%	70-130	1	30
Chloroform	9.530	10.00	ppbv	95%	70-130	0	30
1,1,1-Trichloroethane	9.706	10.00	ppbv	97%	70-130	1	30
Carbon Tetrachloride	9.715	10.00	ppbv	97%	70-130	0	30
Benzene	9.724	10.00	ppbv	97%	70-130	0	30
1,2-Dichloroethane	9.362	10.00	ppbv	94%	70-130	0	30
Trichloroethene	9.907	10.00	ppbv	99%	70-130	2	30
1,2-Dichloropropane	9.574	10.00	ppbv	96%	70-130	1	30
Bromodichloromethane	9.663	10.00	ppbv	97%	70-130	2	30
cis-1,3-Dichloropropene	10.54	10.00	ppbv	105%	70-130	1	30
4-Methyl-2-Pentanone	10.95	10.00	ppbv	110%	70-130	1	30
Toluene	10.08	10.00	ppbv	101%	70-130	2	30
trans-1,3-Dichloropropene	10.63	10.00	ppbv	106%	70-130	1	30
1,1,2-Trichloroethane	9.821	10.00	ppbv	98%	70-130	1	30
Tetrachloroethene	9.706	10.00	ppbv	97%	70-130	2	30
2-Hexanone	11.19	10.00	ppbv	112%	70-130	2	30
Dibromochloromethane	10.15	10.00	ppbv	101%	70-130	2	30
1,2-Dibromoethane	10.04	10.00	ppbv	100%	70-130	3	30
Chlorobenzene	9.537	10.00	ppbv	95%	70-130	1	30
Ethylbenzene	10.34	10.00	ppbv	103%	70-130	<u>·</u> 1	30
m,p-Xylenes	20.88	20.00	ppbv	104%	70-130	0	30
o-Xylene	10.51	10.00	ppbv	105%	70-130	0	30
O Aylelle	10.51	10.00	pppv	100/0	10-130	U	50



							RPD
QC959784 Analyte	Result	Spiked	Units	Recovery Qual	Limits	RPD	Lim
Styrene	11.22	10.00	ppbv	112%	70-130	2	30
Bromoform	10.60	10.00	ppbv	106%	70-130	0	30
1,1,2,2-Tetrachloroethane	10.04	10.00	ppbv	100%	70-130	0	30
1,1,1,2-Tetrachloroethane	10.09	10.00	ppbv	101%	70-130	1	30
4-Ethyltoluene	11.04	10.00	ppbv	110%	70-130	0	30
1,3,5-Trimethylbenzene	11.17	10.00	ppbv	112%	70-130	0	30
1,2,4-Trimethylbenzene	10.88	10.00	ppbv	109%	70-130	1	30
1,3-Dichlorobenzene	10.15	10.00	ppbv	101%	70-130	2	30
1,4-Dichlorobenzene	10.34	10.00	ppbv	103%	70-130	2	30
Benzyl chloride	11.73	10.00	ppbv	117%	70-130	4	30
1,2-Dichlorobenzene	10.23	10.00	ppbv	102%	70-130	3	30
1,2,4-Trichlorobenzene	11.48	10.00	ppbv	115%	70-130	7	30
Hexachlorobutadiene	10.24	10.00	ppbv	102%	70-130	2	30
Surrogates							
Bromofluorobenzene	10.13	10.00	ppbv	101%	60-140		



Type: Blank Lab ID: QC959785 Batch: 279485
Matrix: Air Method: EPA TO-15 Prep Method: METHOD

QC959785 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Freon 12	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Freon 114	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Vinyl Chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Bromomethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Trichlorofluoromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Freon 113	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Acetone	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Carbon Disulfide	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Isopropanol (IPA)	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Methylene Chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
trans-1,2-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
MTBE	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
n-Hexane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1-Dichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Vinyl Acetate	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
cis-1,2-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
2-Butanone	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Chloroform	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,1-Trichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Carbon Tetrachloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Benzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Trichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichloropropane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Bromodichloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
cis-1,3-Dichloropropene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
4-Methyl-2-Pentanone	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Toluene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
trans-1,3-Dichloropropene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,2-Trichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Tetrachloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
2-Hexanone	ND		ppbv	0.50	12/08/21 16:30	12/08/21 16:30
Dibromochloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dibromoethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Ethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
m,p-Xylenes	ND		ppbv	0.40	12/08/21 16:30	12/08/21 16:30
o-Xylene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Styrene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30



QC959785 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bromoform	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
4-Ethyltoluene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,3,5-Trimethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2,4-Trimethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,3-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,4-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Benzyl chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2,4-Trichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Hexachlorobutadiene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Xylene (total)	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Surrogates				Limits		
Bromofluorobenzene	100%		%REC	60-140	12/08/21 16:30	12/08/21 16:30



Type: Lab Control Sample Lab ID: QC959914 Batch: 279529

Matrix: Air Method: EPA TO-15 Prep Method: METHOD

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QC959914 Analyte	Result	Spiked	Units	Recovery Qual	Limits
Freon 12	9.558	10.00	ppbv	96%	70-130
Freon 114	9.360	10.00	ppbv	94%	70-130
Chloromethane	10.51	10.00	ppbv	105%	70-130
Vinyl Chloride	9.645	10.00	ppbv	96%	70-130
Bromomethane	9.362	10.00	ppbv	94%	70-130
Chloroethane	9.426	10.00	ppbv	94%	70-130
Trichlorofluoromethane	9.846	10.00	ppbv	98%	70-130
1,1-Dichloroethene	10.25	10.00	ppbv	103%	70-130
Freon 113	9.929	10.00	ppbv	99%	70-130
Acetone	9.474	10.00	ppbv	95%	70-130
Carbon Disulfide	10.37	10.00	ppbv	104%	70-130
Isopropanol (IPA)	10.24	10.00	ppbv	102%	70-130
Methylene Chloride	9.577	10.00	ppbv	96%	70-130
trans-1,2-Dichloroethene	10.37	10.00	ppbv	104%	70-130
MTBE	10.91	10.00	ppbv	109%	70-130
n-Hexane	10.86	10.00	ppbv	109%	70-130
1,1-Dichloroethane	10.55	10.00	ppbv	105%	70-130
Vinyl Acetate	11.07	10.00	ppbv	111%	70-130
cis-1,2-Dichloroethene	10.54	10.00	ppbv	105%	70-130
2-Butanone	10.57	10.00	ppbv	106%	70-130
Chloroform	9.393	10.00	ppbv	94%	70-130
1,1,1-Trichloroethane	9.859	10.00	ppbv	99%	70-130
Carbon Tetrachloride	10.09	10.00	ppbv	101%	70-130
Benzene	10.28	10.00	ppbv	103%	70-130
1,2-Dichloroethane	10.17	10.00	ppbv	102%	70-130
Trichloroethene	11.75	10.00	ppbv	118%	70-130
1,2-Dichloropropane	11.72	10.00	ppbv	117%	70-130
Bromodichloromethane	11.58	10.00	ppbv	116%	70-130
cis-1,3-Dichloropropene	12.04	10.00	ppbv	120%	70-130
4-Methyl-2-Pentanone	11.82	10.00	ppbv	118%	70-130
Toluene	12.44	10.00	ppbv	124%	70-130
trans-1,3-Dichloropropene	12.55	10.00	ppbv	126%	70-130
1,1,2-Trichloroethane	11.45	10.00	ppbv	114%	70-130
Tetrachloroethene	11.65	10.00	ppbv	117%	70-130
2-Hexanone	13.58	10.00	ppbv	136% b,*	70-130
Dibromochloromethane	11.80	10.00	ppbv	118%	70-130
1,2-Dibromoethane	12.00	10.00	ppbv	120%	70-130
Chlorobenzene	9.984	10.00	ppbv	100%	70-130
Ethylbenzene	10.83	10.00	ppbv	108%	70-130
m,p-Xylenes	21.61	20.00		108%	70-130
	11.04	10.00	ppbv	110%	70-130
o-Xylene Styrono			ppbv		
Styrene	11.66	10.00	ppbv	117%	70-130



QC959914 Analyte	Result	Spiked	Units	Recovery Qua	l Limits
Bromoform	10.34	10.00	ppbv	103%	70-130
1,1,2,2-Tetrachloroethane	10.08	10.00	ppbv	101%	70-130
1,1,1,2-Tetrachloroethane	9.870	10.00	ppbv	99%	70-130
4-Ethyltoluene	11.78	10.00	ppbv	118%	70-130
1,3,5-Trimethylbenzene	11.50	10.00	ppbv	115%	70-130
1,2,4-Trimethylbenzene	12.24	10.00	ppbv	122%	70-130
1,3-Dichlorobenzene	11.12	10.00	ppbv	111%	70-130
1,4-Dichlorobenzene	11.45	10.00	ppbv	115%	70-130
Benzyl chloride	12.38	10.00	ppbv	124%	70-130
1,2-Dichlorobenzene	11.24	10.00	ppbv	112%	70-130
1,2,4-Trichlorobenzene	14.53	10.00	ppbv	145% b,*	70-130
Hexachlorobutadiene	11.23	10.00	ppbv	112%	70-130
Surrogates					
Bromofluorobenzene	9.982	10.00	ppbv	100%	60-140



Type: Lab Control Sample Duplicate Lab ID: QC959915 Batch: 279529

Matrix: Air Method: EPA TO-15 Prep Method: METHOD

								RPD
QC959915 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
Freon 12	10.01	10.00	ppbv	100%		70-130	5	30
Freon 114	9.657	10.00	ppbv	97%		70-130	3	30
Chloromethane	10.50	10.00	ppbv	105%		70-130	0	30
Vinyl Chloride	9.857	10.00	ppbv	99%		70-130	2	30
Bromomethane	9.474	10.00	ppbv	95%		70-130	1	30
Chloroethane	9.538	10.00	ppbv	95%		70-130	1	30
Trichlorofluoromethane	9.875	10.00	ppbv	99%		70-130	0	30
1,1-Dichloroethene	10.32	10.00	ppbv	103%		70-130	1	30
Freon 113	9.870	10.00	ppbv	99%		70-130	1	30
Acetone	9.516	10.00	ppbv	95%		70-130	0	30
Carbon Disulfide	10.37	10.00	ppbv	104%		70-130	0	30
Isopropanol (IPA)	10.29	10.00	ppbv	103%		70-130	0	30
Methylene Chloride	8.827	10.00	ppbv	88%		70-130	8	30
trans-1,2-Dichloroethene	10.46	10.00	ppbv	105%		70-130	1	30
MTBE	11.07	10.00	ppbv	111%		70-130	1	30
n-Hexane	10.94	10.00	ppbv	109%		70-130	1	30
1,1-Dichloroethane	10.58	10.00	ppbv	106%		70-130	0	30
Vinyl Acetate	10.96	10.00	ppbv	110%		70-130	1	30
cis-1,2-Dichloroethene	10.59	10.00	ppbv	106%		70-130	0	30
2-Butanone	10.72	10.00	ppbv	107%		70-130	1	30
Chloroform	9.373	10.00	ppbv	94%		70-130	0	30
1,1,1-Trichloroethane	9.872	10.00	ppbv	99%		70-130	0	30
Carbon Tetrachloride	10.17	10.00	ppbv	102%		70-130	1	30
Benzene	10.32	10.00	ppbv	103%		70-130	0	30
1,2-Dichloroethane	10.03	10.00	ppbv	100%		70-130	1	30
Trichloroethene	11.47	10.00	ppbv	115%		70-130	2	30
1,2-Dichloropropane	11.43	10.00	ppbv	114%		70-130	2	30
Bromodichloromethane	11.28	10.00	ppbv	113%		70-130	3	30
cis-1,3-Dichloropropene	11.80	10.00	ppbv	118%		70-130	2	30
4-Methyl-2-Pentanone	12.02	10.00	ppbv	120%		70-130	2	30
Toluene	12.12	10.00	ppbv	121%		70-130	3	30
trans-1,3-Dichloropropene	12.34	10.00	ppbv	123%		70-130	2	30
1,1,2-Trichloroethane	11.17	10.00	ppbv	112%		70-130	2	30
Tetrachloroethene	11.40	10.00	ppbv	114%		70-130	2	30
2-Hexanone	13.42	10.00	ppbv	134%	b,*	70-130	1	30
Dibromochloromethane	11.50	10.00	ppbv	115%		70-130	3	30
1,2-Dibromoethane	11.69	10.00	ppbv	117%		70-130	3	30
Chlorobenzene	9.996	10.00	ppbv	100%		70-130	0	30
Ethylbenzene	10.92	10.00	ppbv	109%		70-130	1	30
m,p-Xylenes	21.72	20.00	ppbv	109%		70-130	1	30
o-Xylene	11.17	10.00	ppbv	112%		70-130	1	30



								RPD
QC959915 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
Styrene	11.72	10.00	ppbv	117%		70-130	1	30
Bromoform	10.66	10.00	ppbv	107%		70-130	3	30
1,1,2,2-Tetrachloroethane	10.13	10.00	ppbv	101%		70-130	0	30
1,1,1,2-Tetrachloroethane	9.935	10.00	ppbv	99%		70-130	1	30
4-Ethyltoluene	11.80	10.00	ppbv	118%		70-130	0	30
1,3,5-Trimethylbenzene	11.50	10.00	ppbv	115%		70-130	0	30
1,2,4-Trimethylbenzene	12.27	10.00	ppbv	123%		70-130	0	30
1,3-Dichlorobenzene	11.10	10.00	ppbv	111%		70-130	0	30
1,4-Dichlorobenzene	11.41	10.00	ppbv	114%		70-130	0	30
Benzyl chloride	12.51	10.00	ppbv	125%		70-130	1	30
1,2-Dichlorobenzene	11.29	10.00	ppbv	113%		70-130	0	30
1,2,4-Trichlorobenzene	14.68	10.00	ppbv	147%	b,*	70-130	1	30
Hexachlorobutadiene	11.14	10.00	ppbv	111%		70-130	1	30
Surrogates								
Bromofluorobenzene	9.988	10.00	ppbv	100%		60-140		



Type: Blank Lab ID: QC959916 Batch: 279529

Matrix: Air Method: EPA TO-15 Prep Method: METHOD

QC959916 Analyte	Result	Qual Units	RL	Prepared	Analyzed
Freon 12	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Freon 114	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chloromethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Vinyl Chloride	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Bromomethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chloroethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Trichlorofluoromethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1-Dichloroethene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Freon 113	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Acetone	ND	ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Carbon Disulfide	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Isopropanol (IPA)	ND	ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Methylene Chloride	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
trans-1,2-Dichloroethene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
MTBE	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
n-Hexane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1-Dichloroethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Vinyl Acetate	ND	ppbv	1.0	12/09/21 13:18	12/09/21 13:18
cis-1,2-Dichloroethene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
2-Butanone	ND	ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Chloroform	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,1-Trichloroethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Carbon Tetrachloride	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Benzene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichloroethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Trichloroethene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichloropropane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Bromodichloromethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
cis-1,3-Dichloropropene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
4-Methyl-2-Pentanone	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Toluene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
trans-1,3-Dichloropropene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,2-Trichloroethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Tetrachloroethene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
2-Hexanone	ND	ppbv	0.50	12/09/21 13:18	12/09/21 13:18
Dibromochloromethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dibromoethane	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chlorobenzene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Ethylbenzene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
m,p-Xylenes	ND	ppbv	0.40	12/09/21 13:18	12/09/21 13:18
o-Xylene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Styrene	ND	ppbv	0.20	12/09/21 13:18	12/09/21 13:18



QC959916 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bromoform	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
4-Ethyltoluene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,3,5-Trimethylbenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2,4-Trimethylbenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,3-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,4-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Benzyl chloride	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2,4-Trichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Hexachlorobutadiene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Xylene (total)	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Surrogates				Limits		
Bromofluorobenzene	100%		%REC	60-140	12/09/21 13:18	12/09/21 13:18

Value is outside QC limits

ND Not Detected

b See narrative



#### **TYPICAL DEVELOPMENT TRAJECTORY**

Ordinarily, a development project tiering of an area specific plan and exempt from further environmental review has the following general development trajectory:

- 1. **Environmental Site Assessment Phase 1**. A Phase 1 environmental site assessment is a desktop review of the historical use(s) of a site to determine if past uses could have caused potentially harmful environmental impacts. A Phase 1 includes review of records to determine if any governmental oversite was done for the site. No laboratory testing is done.
- 2. **CEQA Analysis**. The City of Oakland conducts a CEQA Analysis examining the project utilizing the CEQA Guidelines Environmental Checklist (Appendix G) to determine if the project is likely to result in significant impacts and require an environmental impact report or qualifies for an exemption/addendum under applicable CEQA provisions. The CEQA Analysis includes the City's Standard Conditions of Approval to mitigate potential impacts from projects to a less-than-significant level. 14 CCR §§ 15000, et seq., Appendix G.
- 3. **Planning Commission Entitlement**. Subsequent to preparation of the CEQA Analysis, determination on a project's planning entitlements and environmental review must occur, typically by the Planning Commission. Entitlement approval is a programmatic approval of the use(s) and building envelope.
- 4. **Building Permit Application Submittal**. After planning entitlement approval, a building permit application for earth movement and/or vertical construction must be submitted with plans outlining all of the technical specifics for construction of the building, including mechanical, electrical, and plumbing engineering details, aka construction documents.
- Post-Entitlement Site Assessment Phase 2. Subsequent to entitlement, but prior 5. to issuance of a project's building permit for any earth movement or vertical construction, a Phase 2 environmental site assessment may be required depending on the Phase 1 report's findings. A Phase 2 report is a subsurface environmental analysis of a site, including ground water and soil vapor. A Phase 2 includes laboratory testing to confirm the presence of hazardous materials and levels of the samples. After determination of the hazards present, if any, contemporaneously with processing of the project's building permit by the City, mitigation/remediation is conducted under the regulatory oversight of the appropriate local, state, and/or federal agency, i.e., Alameda County Department of Environmental Health, the Department of Toxic Substances, or the Environmental Protection Agency. Mitigation/remediation and the oversight thereof by the appropriate regulatory body typically does not occur until after project planning entitlements have been secured. Presumably, this is so that limited resources are not wasted on projects that never move forward.
- 6. **Building Permit Issuance**. A building permit for earth movement or vertical construction will not issue until post-entitlement mitigation/remediation, if any, is complete and the regulatory body overseeing the mitigation/remediation issues a no further action letter. Until receipt of the no further action letter, the City's Planning and Building Department will not issue a project's building permit.
- 7. **Construction**. Only upon building permit issuance, after mitigation/remediation of the site if needed, can earth movement or vertical construction of a project occur.