

November 22, 2022

Stacey Rutherford, P.E., LEED AP, QSD/QSP
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City of Berkeley
Department of Parks, Recreation, and Waterfront
1947 Center Street, 5th Floor
Berkeley, CA 94704

**RE: Santa Fe Right-of-Way Phase II Environmental Site Assessment – Report of Findings
Historic Santa Fe Right-of-Way
Berkeley, California**

Dear Ms. Rutherford:

GSI Environmental Inc. (GSI) has prepared this letter to document the results of the environmental soil investigation conducted along portions of the historic Santa Fe Railroad right-of way (ROW) in Berkeley, California (the Site; Figure 1). This letter presents the Site background, the sampling and analysis plan, describes the sampling procedures, and discusses the analytical results.

The City of Berkeley's (City) overall goal is to develop a public park on four existing parcels of the former Santa Fe ROW. This soil investigation has been designed so that the new park project complies with applicable regulatory requirements pertaining to potential soil contamination.

SITE DESCRIPTION

The Site extends north-to-south between Blake Street and Ward Street and east-to-west between Sacramento Street and Mabel Street (referred to herein as the Site) and includes four parcels, as shown on Figure 2.

- Parcel 1 – approximately 0.26 acres located between Blake and Parker Streets¹
- Parcel 2 – approximately 0.32 acres located between Parker and Carleton Streets
- Parcel 3 – approximately 0.38 acres located between Carleton and Derby Streets
- Parcel 4 – approximately 0.36 acres located between Derby and Ward Streets

Collectively, the area of these parcels is approximately 1.32 acres. The Site is currently undeveloped land that was historically a railroad ROW.

HISTORIAL AND CURRENT SITE USE

Prior to conducting field activities, GSI reviewed historic aerial photographs, Sanborn Fire Insurance maps, and regulatory databases to evaluate previous uses of the Site and adjacent properties and identify potential sources of possible chemical impacts. A site reconnaissance was conducted with a representative from the City to review findings from the aerial photographs and to select soil boring locations. All four parcels were formerly part of the Santa Fe Railroad ROW and used to contain railroad tracks. The table below briefly describes historical and current Site uses. Historical records document that a railbed and tracks were installed as of 1884 and rail

¹ Note that a portion of Parcel 1 was not accessible due to an existing encroachment.

service was operated continuously until 1980, when the City acquired the entire railroad ROW in Berkeley from the Santa Fe Railroad Corporation.

Parcel	Historical Findings	Current Use/Condition
Parcel 1 (Blake to Parker)	No historical features noted, other than historical railroad ROW.	Northwest corner is slightly mounded. Landscaping observed in the northeast corner. Residential driveway and shed encroachment observed in the southern corner.
Parcel 2 (Parker to Carleton)	Hothouses/greenhouses adjacent to the east of the Site were observed on the 1950 Sanborn maps.	Parcel appears to be used as an unofficial dog park.
Parcel 3 (Carleton to Derby)	No historical features noted, other than historical railroad ROW.	An abandoned portable aboveground tank was observed along the east fence in the central portion of the parcel. Evidence of potential gardening activities was observed.
Parcel 4 (Derby to Ward)	An arsenic bioremediation study was performed along the eastern parcel boundary between 2013 and 2016. A black structure was observed along the eastern fence in the 2016 aerial photograph (presumably associated with the study).	A slight depression covered with wood chips was observed in the northern central portion of the parcel. Evidence of potential gardening activities was observed.

SAMPLING AND ANALYSIS PLAN

The purpose of the investigation is to support the City with its efforts to convert the Site into a public park and community asset, including community gardens, dog park, children’s play area, outdoor classroom, orchard, and public gathering spaces.

Based on the results of the historical information review and site reconnaissance, GSI developed a sampling and analysis plan (SAP) to provide general coverage of the Site and target potential historical and current features of potential concern. The SAP is presented in Table 1.

The investigation included the collection of shallow soil samples at three depths from 15 soil borings to evaluate potential chemical impacts to soil at the Site.

FIELD AND ANALYTICAL METHODS

The methodology used to collect soil samples at the Site and analytical methods are described below.

Field Preparation Activities

In preparation for the investigation, GSI completed the following:

- A boring permit was obtained from the City of Berkeley (Attachment A).
- An Underground Service Alert (USA) ticket was obtained more than 2 working days before advancing the soil borings, as required by law.
- Soil boring locations were marked and GSI retained Subtronic Corporation, a private utility locating company, to survey each boring location for underground utilities.

Soil Sample Collection

GSI retained PeneCore Drilling, Inc., of Woodland, California (PeneCore), a State of California licensed driller, to perform 15 soil borings on July 13 and July 14, 2022. The soil boring locations are shown on Figures 3 through 6.

Soil samples were collected with a hand auger. Before the collection of each soil sample, the hand auger was decontaminated using an Alconox/water solution followed by a water rinse. Soil was collected from the hand auger at depths of approximately 1.0, 2.5, and 4.0 feet bgs and transferred into laboratory-supplied glass jars. Soil was screened for organic vapors using a handheld photoionization detector (PID). Soil samples were labeled, placed in plastic resealable bags, and stored in an ice-chilled cooler.

After sampling, the soil borings were backfilled with potting soil until they matched the surrounding grade.

Analytical Testing

Soil samples were transferred to Enthalpy Analytical (Enthalpy) of Berkeley, California, a California Environmental Laboratory Accreditation Program (ELAP)-certified analytical laboratory, following standard chain-of-custody procedures. Enthalpy analyzed the soil samples according to one or more of the analyses listed below.

- California Title 22 Metals using United States Environmental Protection Agency (USEPA) Method 6010B;
- Polycyclic aromatic hydrocarbons (PAHs) using USEPA Method 8270C with selective ion monitoring (SIM);
- Organochlorine pesticides (OCPs) using USEPA Method 8081A; and
- Total petroleum hydrocarbons (TPH) quantified as diesel (TPHd) and motor oil (TPHmo) using USEPA Method 8015M.

GSI selected the analytical methods for each sample based on the results of the historical review and the site reconnaissance visit. Some samples were placed on hold pending results of initial analyses. The analyses conducted for each sample is shown on Table 1.

INVESTIGATION RESULTS

This section presents the results of shallow soil sampling, including a comparison of analytical results to risk-based screening criteria.

Soil Lithology

The soil at the Site generally consists of dark grayish brown poorly graded sand with silt or silty sand underlain by very dark brown lean clay to a depth of 4.0 feet bgs (the total depth drilled). No staining or odors were observed at any of the soil boring locations during sampling activities.

Analytical Results

Analytical results for soil samples are presented in Tables 2 through 5 and discussed below. Analytical laboratory data reports are included in Attachment B.

Data Quality Summary

The field sampling and analytical data were reviewed to determine the data usability in accordance with guidelines published by USEPA:

- *National Functional Guidelines for Inorganic Superfund Methods Data Review*²
- *National Functional Guidelines for Organic Superfund Methods Data Review*³

The data usability evaluation included a review of surrogate recovery results, laboratory blank sample results, matrix spike (MS) and matrix spike duplicate (MSD) results, laboratory control sample results and laboratory calibration standards. Data quality issues that resulted in qualification of the data are summarized in the Data Quality Summary provided in Attachment C:

Overall, the soil sample analytical results were found to be compliant with the data objectives for the project and are considered usable for determining the character of the Site. Based on some qualifiers, select data may not be suitable for use in a formal risk assessment.

Screening Criteria

The analytical results for soil samples are evaluated herein by comparison to risk-based screening levels for residential and commercial/industrial land use to 1) identify potential source areas of chemical impacts to the subsurface, and 2) evaluate potential exposures to future Site occupants following redevelopment. The analytical results are compared to Regional Screening Levels (RSLs) published by the USEPA for residential and commercial/industrial soil⁴, as endorsed or modified by the California Department of Toxic Substances Control (DTSC),⁵ except as noted below:

- Arsenic typically exceeds its conservative risk-based screening criterion at naturally occurring, “background” concentrations. Therefore, the detected concentrations of arsenic are compared to regional background values. For arsenic, a background value of 11 milligrams per kilogram (mg/kg) was established in an evaluation of background concentrations in urbanized flatland soils within the San Francisco Bay Area, completed at San Francisco State University in coordination with staff of the San Francisco Bay Regional Water Quality Control Board.⁶
- Carcinogenic benzo(a)pyrene-like PAHs are evaluated by calculating the benzo(a)pyrene equivalency (BaPe) using equivalency factors recommended by DTSC (2015),⁷ with non-

² USEPA, 2020, National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 542-R-20-006), November.

³ USEPA, 2020, National Functional Guidelines for Organic Superfund Methods Data Review (EPA 540-R-20-005), November.

⁴ USEPA, 2022, Regional Screening Levels, May.

⁵ DTSC, 2022, Human and Ecological Risk (HERO), HHRA Note Number 3, May.

⁶ Duverge, Dylan Jacques, 2011, Establishing background Arsenic in soil for the Urbanized San Francisco Bay Region, December.

⁷ DTSC, 2015, Preliminary Endangerment Assessment Guidance Manual, October.

detect values represented as the detection limit. BaPe are compared to the regional ambient level of 0.9 mg/kg established by DTSC.⁸

- RSLs are not published for TPHd or TPHmo. As such, analytical results for TPHd, and TPHmo were evaluated by comparison to residential Environmental Screening Levels (ESLs) published by the Water Board (2019).

The DTSC-SLs and ESLs are generic screening levels, derived using standard default exposure assumptions that represent reasonable maximum exposure (RME) conditions and USEPA or DTSC recommended toxicity values. These screening levels correspond to concentrations in soil that are not expected to pose a significant human health risk. In general, generic screening levels are more stringent (i.e., more likely to significantly overstate actual risks) than Site-specific screening levels due to the conservative nature of the assumptions used. Thus, when contaminant concentrations are below generic screening levels, no further action or study is typically warranted.

Additionally, analytical results were compared to waste characterization criteria to aid in redevelopment planning.⁹

The analytical results are discussed below, first by chemical class, followed by a per parcel evaluation.

Metals

Twenty-two soil samples were initially analyzed for the full list of California Title 22 Metals (Table 2). Based on the initial analytical results, an additional 16 samples were analyzed for arsenic, 4 samples were analyzed for lead, and 1 sample was analyzed for mercury.

- Arsenic detections ranged from 3.4 to 220 mg/kg. Detected concentrations in 24 of the 38 samples analyzed (collected from Parcels 1, 2, 3, and 4) exceeded the regional background concentration of 11 mg/kg. Samples containing arsenic exceeding background were primarily collected at 1.0 and 2.5 feet bgs, with the exception of samples collected at 4 feet at borings P2-1 (Parcel 2) and P3-4 (Parcel 3).
- Lead detections ranged from 6.8 to 280 mg/kg. Detected concentrations in 5 of the 28 samples analyzed (collected from Parcels 2, 3, and 4 at 1.0 foot bgs) exceeded the residential human health screening criteria of 80 mg/kg. Lead was not detected at concentrations exceeding the commercial/industrial screening criteria in any of the samples.
- Mercury detections ranged from 0.079 to 2.1 mg/kg. Detected concentrations in 3 of the 25 samples analyzed (collected from Parcels 2, 3, and 4 at 1.0 foot bgs) exceeded the residential human health screening criteria of 1 mg/kg. Mercury was not detected at concentrations exceeding the commercial/industrial screening criteria in any of the samples.
- No other metals were detected at concentrations exceeding residential or commercial/industrial human health screening criteria.
- Nineteen samples contained one or more metals (arsenic, chromium, lead, or mercury) at concentrations exceeding 10 times their respective soluble threshold limit concentration

⁸ California Department of Toxic Substances Control (DTSC), 2009, Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, July 1.

⁹ California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.

(STLC), indicating a waste extraction test (WET) would be needed to determine if waste soil would be classified as non-Resource Conservation and Recovery Act (RCRA) California hazardous waste. Concentrations of metals (arsenic or lead) in six of these samples also exceeded 20 times the toxicity criteria (TC) indicating a toxicity characteristic leaching procedure (TCLP) would be required to determine if waste soil would be classified as RCRA hazardous waste.

PAHs

Twenty-five soil samples were analyzed for PAHs (Table 3). Carcinogenic benzo(a)pyrene-like PAHs were evaluated by calculating the benzo(a)pyrene equivalency (BaPe) using equivalency factors recommended by DTSC (2015), with non-detect values represented as the detection limit. BaPe values were calculated for samples where at least one carcinogenic PAH was detected (10 samples total). The calculated BaPe ranged from 0.045 to 4.8 mg/kg. The BaPe for the soil sample collected at 1.0 foot bgs from boring P4-4 (Parcel 4) is the only BaPe that exceeded the regional background screening criteria of 0.9 mg/kg. The BaPe for the other nine samples, including P4--4--2.5, which was collected from the same boring, were below 0.9 mg/kg. Non-carcinogenic PAHs were not detected at concentrations exceeding the screening criteria in any of the samples analyzed.

Organochlorine Pesticides

Twenty-two soil samples were analyzed for organochlorine pesticides (Table 4). No organochlorine pesticides were detected at concentrations exceeding the residential or commercial/industrial screening levels:

- 4,4-DDE was detected in three samples at concentrations ranging from 0.011 to 0.037 mg/kg. These detections are below the screening criteria of 2 mg/kg.
- 4,4-DDT was detected in four samples at concentrations ranging from 0.012 to 0.04 mg/kg. These detections are below the screening criteria of 1.9 mg/kg.
- Dieldrin was detected in two samples at concentrations ranging from 0.01 and 0.015 mg/kg. These detections are below the screening criteria of 0.034 mg/kg.
- No other OCPs were detected.

Total Petroleum Hydrocarbons

Twenty-two soil samples were analyzed for TPH-d and TPH-mo (Table 5). TPH-d and TPH-mo were not detected at concentrations exceeding the residential or commercial/industrial screening levels:

- Detections of TPH-d ranged from 14 to 160 mg/kg. These detections are below the residential human health screening criteria of 260 mg/kg.
- Detections of TPH-mo ranged from 22 to 490 mg/kg. These detections are below the residential human health screening criteria of 12,000 mg/kg.

DATA SUMMARY BY PARCEL

A discussion of human health screening level exceedances at each parcel is provided below. Data exceeding screening levels on each parcel are shown on Figures 3 through 6.

Parcel 1

At Parcel 1, arsenic was the only constituent detected at concentrations exceeding its screening criterion. Arsenic was detected above the background concentration in the samples collected from

1.0 and 2.5 feet bgs at boring P1-2 and P1-3. Screening level exceedances for Parcel 1 are shown on Figure 3.

Parcel 2

At Parcel 2, arsenic, lead and/or mercury were detected above screening criteria in the sample collected at 1.0 foot bgs from all four borings (P2-1 through P2-4). Arsenic was also detected above screening criteria in the samples collected from 2.5 and 4.0 feet bgs at boring P2-1 and at 2.5 feet bgs at boring P2-2. The vertical extent of arsenic impacts is not defined at boring P2-1. Screening level exceedances for Parcel 2 are shown on Figure 4.

Parcel 3

At Parcel 3, arsenic, lead and/or mercury were detected above screening criteria in the sample collected at 1.0 foot bgs from all four borings (P3-1 through P3-4). Arsenic was also detected above its screening criterion in the samples collected from 2.5 feet bgs at boring P3-2 and at 2.5 and 4.0 feet bgs at boring P3-4. The vertical extent of arsenic impacts is not defined at boring P3-4. Screening level exceedances for Parcel 3 are shown on Figure 5.

Parcel 4

At Parcel 4, arsenic, lead and/or mercury were detected above screening criteria in the sample collected at 1.0 foot bgs from all four borings (P4-1 through P4-4). Additionally, the calculated value of BaPe for carcinogenic PAHs exceeded its screening criterion in the sample collected at 1.0-foot bgs at boring P4-4. Arsenic was also detected above screening criteria in the samples collected from 2.5 feet bgs at borings P4-1 and P4-4. Screening level exceedances for Parcel 4 are shown on Figure 6.

CONCLUSIONS AND RECOMMENDATIONS

GSI collected soil samples from 15 soil borings to evaluate whether historical activities within the former Santa Fe Railroad ROW have impacted shallow soil with metals, PAHs, organochlorine pesticides, and TPH. TPH and OCPs were not detected at concentrations exceeding human health screening criteria in any samples. Arsenic was detected at samples collected from 1.0 foot and 2.5 feet bgs at various locations across the site with no discernable source area. Arsenic was also detected in samples collected at 4.0 feet bgs at two locations. Lead, mercury, and PAHs were detected at concentrations exceeding the human health screening criteria in samples collected at 1.0 foot bgs at a limited number of borings.

Given the widespread distribution of shallow soil containing elevated concentrations of arsenic (and other metals at some locations), GSI recommends mitigating exposure to potential future receptors using engineering and institutional controls. This could include the following methods that would correspond with the final project design:

- removal of affected soil in areas that do not receive new hardscape
- placement and management of affected soil beneath new hardscape and permeable pavement
- development of an approved Site Management Plan to outline procedures to be implemented to protect worker and public safety during subsurface intrusive activities.
- execution of a land use covenant with the appropriate regulatory agency (e.g., DTSC).

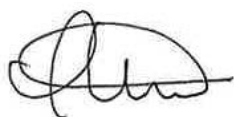
Details of the mitigation would be based on the redevelopment plan and discussion with the regulatory agency overseeing the project.

Next Steps

The project design team will provide a site plan that identifies the new uses and new surface treatments of all parcels. GSI and the design team will then work together to identify areas of the site where affected soil will remain in-place (e.g., capped by appropriate hardscape) and areas where soil will be removed and replaced with clean soil. A Remedial Action Plan (RAP) will be developed describing the proposed approach and methodology for implementation including health and safety protocols during implementation. The RAP will go through a public comment process leading to a formal approval by the regulatory agency (to be determined). A Site Management Plan (SMP) will also be prepared to document post-development conditions and procedures for proper management of soil and protection of public safety during future subsurface intrusive Site activities. A land use covenant (LUC) will also be recorded that will, at a minimum, include stipulations that the cover over affected soil be maintained and the SMP be implemented. Upon completion of the new parks project, the Site will be subject to required annual monitoring to demonstrate compliance with the LUC.

We appreciate the opportunity to work with you on this project. Please contact either of the undersigned if you have any questions.

Sincerely,



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Attachments:

Table 1	Sampling and Analysis Plan
Table 2	Metals in Soil
Table 3	Polycyclic Aromatic Hydrocarbons in Soil
Table 4	Pesticides in Soil
Table 5	Total Petroleum Hydrocarbons in Soil
Figure 1	Site Location Map
Figure 2	Site Overview
Figure 3	Parcel 1 Site Plan
Figure 4	Parcel 2 Site Plan
Figure 5	Parcel 3 Site Plan
Figure 6	Parcel 4 Site Plan
Attachment A	City of Berkeley Boring Permit
Attachment B	Analytical Laboratory Reports
Attachment C	Data Quality Summary

**SANTA FE RIGHT-OF-WAY PHASE II ENVIRONMENTAL SITE ASSESSMENT-
REPORT OF FINDINGS**
Historic Santa Fe Right-of-Way
Berkeley, California

TABLES

Table 1	Sampling and Analysis Plan
Table 2	Metals in Soil
Table 3	Polycyclic Aromatic Hydrocarbons in Soil
Table 4	Pesticides in Soil
Table 5	Total Petroleum Hydrocarbons in Soil

TABLE 1: SAMPLING AND ANALYSIS PLAN
HISTORIC SANTA FE RIGHT-OF-WAY
BERKELEY, CALIFORNIA

Parcel	Sample ID	Description	Sample Depth (feet bgs)	Analytes and Analytical Methods			
				Title 22 Metals	OCPs	TPHd/TPHmo	PAHs
				EPA 6010B/7471A	EPA 8081A	EPA 8015	EPA 8270C SIM
1	P1-1	Area slightly raised	0.5-1.0	X ²	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	X	X	X	X
1	P1-2	General Coverage	0.5-1.0	As	Hold	Hold	Hold
			2.0-2.5	X	X	X	X
			3.5-4.0	As	Hold	Hold	Hold
1	P1-3	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	As	Hold	Hold	Hold
			3.5-4.0	As	Hold	Hold	Hold
2	P2-1	General Coverage	0.5-1.0	As, Pb	Hold	Hold	Hold
			2.0-2.5	X	X	X	X
			3.5-4.0	As	Hold	Hold	Hold
2	P2-2	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	As, Pb	Hold	Hold	Hold
			3.5-4.0	As, Pb	Hold	Hold	Hold
2	P2-3	Historical Adjacent Greenhouse	0.5-1.0	X	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	Hold	Hold	Hold	Hold
2	P2-4	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	As, Pb, Hg	Hold	Hold	Hold
			3.5-4.0	As	Hold	Hold	Hold
3	P3-1	General Coverage	0.5-1.0	As, Pb, Hg	Hold	Hold	Hold
			2.0-2.5	X	X	X	X
			3.5-4.0	Hold	Hold	Hold	Hold
3	P3-2	Possible Community Gardening	0.5-1.0	X	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	As	Hold	Hold	Hold
3	P3-3	Abandoned Portable Tank	0.5-1.0	X	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	Hold	Hold	Hold	Hold
3	P3-4	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	As	Hold	Hold	Hold
			3.5-4.0	As	Hold	Hold	Hold
4	P4-1	Depression/wood chips	0.5-1.0	X	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	As	Hold	Hold	Hold
4	P4-2	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	X	X	X	X
			3.5-4.0	Hold	Hold	Hold	Hold
4	P4-3	General Coverage	0.5-1.0	As, Pb, Hg	Hold	Hold	X
			2.0-2.5	X	X	X	X
			3.5-4.0	Hold	Hold	Hold	Hold
4	P4-4	General Coverage	0.5-1.0	X	X	X	X
			2.0-2.5	As	Hold	Hold	X
			3.5-4.0	As	Hold	Hold	X

Notes:

1. Soil samples collected by GSI Environmental Inc. and analyzed by Enthalpy Analytical.
2. "X" denotes that the soil sample was analyzed for the noted analytical suite.
3. Shading indicates GSI Environmental Inc. requested the analysis after reviewing the initial analytical results.

Abbreviations:

As = arsenic
bgs = below ground surface
EPA = United States Environmental Protection Agency
Hg = mercury
Hold = samples were placed on hold pending the results of initial analyses
OCPs = organochlorine pesticides
PAHs = polynuclear aromatic hydrocarbons
Pb = lead
SIM = selective ion monitoring
TPHd = total petroleum hydrocarbons quantified as diesel
TPHmo = total petroleum hydrocarbons quantified as motor oil



TABLE 2. METALS IN SOIL¹
HISTORIC SANTA FE RIGHT-OF-WAY
BERKELEY, CALIFORNIA

Parcel	Boring	Sample Name	Date Collected	Sample Depth feet bgs	Title 22 Metals																
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
					mg/kg																
1	P1-1	P1-1-1.0	7/13/2022	1.0	0.91	9.3	180	0.56	<0.50	62	15	37	34	0.30	0.78	57	1.2	<0.50	<0.50	72	100
		P1-1-2.5	7/13/2022	2.5	<0.5	8.4	200	0.65	<0.5	69	17	33	9	<0.050	0.9	67	1.3	<0.5	<0.5	74	72
		P1-1-4.0	7/13/2022	4.0	<0.5	6.1	180	0.63	<0.5	70	12	29	6.8	<0.050	<0.5	58	1.2	<0.5	<0.5	71	59
	P1-2	P1-2-1.0	7/13/2022	1.0	--	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P1-2-2.5	7/13/2022	2.5	1.3	12	300	0.73	<0.5	37	16	28	13	0.079	1.3	53	1.3	<0.5	<0.5	40	66
		P1-2-4.0	7/13/2022	4.0	--	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P1-3	P1-3-1.0	7/13/2022	1.0	2.7	83	190	0.5	<0.5	33	19	32	34	0.23	1	48	1.1	<0.5	<0.5	42	74
		P1-3-2.5	7/13/2022	2.5	--	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P1-3-4.0	7/13/2022	4.0	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	P2-1	P2-1-1.0	7/13/2022	1.0	--	28	--	--	--	--	--	--	210	--	--	--	--	--	--	--	--
		P2-1-2.5	7/13/2022	2.5	1.4	26	150	<0.5	<0.5	46	12	29	63	0.65	<0.5	37	0.93	<0.5	<0.5	55	180
		P2-1-4.0	7/13/2022	4.0	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P2-2	P2-2-1.0	7/13/2022	1.0	1.8	37	170	<0.5	<0.5	34	12	42	200	0.43	<0.5	38	1.6	<0.5	<0.5	73	150
		P2-2-2.5	7/13/2022	1.0	--	41	--	--	--	--	--	--	10	--	--	--	--	--	--	--	--
		P2-2-4.0	7/13/2022	4.0	--	3.4	--	--	--	--	--	--	6.9	--	--	--	--	--	--	--	--
	P2-3	P2-3-1.0	7/13/2022	1.0	1.5	32	180	<0.5	<0.5	59	14	81	140	0.48	0.72	61	1.1	<0.5	<0.5	53	190
		P2-3-2.5	7/13/2022	2.5	<0.5	6.7	190	0.73	<0.5	73	13	32	7.6	<0.050	<0.5	55	1.2	<0.5	<0.5	71	61
	P2-4	P2-4-1.0	7/13/2022	1.0	3.6	220	280	0.57	<0.5	46	9.8	60	56	2.1	<0.5	83	0.91	<0.5	<0.5	34	62
		P2-4-2.5	7/13/2022	2.5	--	8.9	--	--	--	--	--	--	12	<0.16 R	--	--	--	--	--	--	--
P2-4-4.0	7/13/2022	4.0	--	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	P3-1	P3-1-1.0	7/14/2022	1.0	--	63	--	--	--	--	--	15	<0.15 R	--	--	--	--	--	--	--	
		P3-1-2.5	7/14/2022	2.5	<2.7	6.5	190	0.56	0.59	46	10	26	11	<0.17	<0.91	45	<2.7	<0.45	<2.7	43	56
	P3-2	P3-2-1.0	7/14/2022	1.0	<2.8	120	66	<0.47	0.65	35	7.3	42	66	1.7	<0.94	41	<2.8	<0.47	<2.8	35	96
		P3-2-2.5	7/14/2022	2.5	<2.7 R	67	130	<0.45	0.57	56	13	60	22	0.96	<0.89	65	<2.7	<0.45	<2.7	39	110
		P3-2-4.0	7/14/2022	4.0	--	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P3-3	P3-3-1.0	7/14/2022	1.0	<2.7	12	180	<0.44	0.72	41	9.5	32	84	0.21	<0.88	39	<2.7	<0.44	<2.7	41	150
		P3-3-2.5	7/14/2022	2.5	<3.0 UJ	7.8	160	<0.50	0.69	37	12	30	68	0.20	<0.99	40	<3.0	0.56	<3.0	36	140
	P3-4	P3-4-1.0	7/14/2022	1.0	<2.8	13	130	<0.47	0.57	45	15	34	43	<0.15	<0.94	45	<2.8	<0.47	<2.8	50	73
		P3-4-2.5	7/14/2022	2.5	--	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P3-4-4.0	7/14/2022	4.0	--	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	P4-1	P4-1-1.0	7/14/2022	1.0	<3.0	140	190	<0.5	1.9	75	14	81	280	2.1	<1.0	120	<3.0	<0.50	<3.0	37	440
		P4-1-2.5	7/14/2022	2.5	<2.8	88	160	<0.47	0.47	26	17	28	21	0.25	<0.93	47	<2.8	<0.47	<2.8	24	60
		P4-1-4.0	7/14/2022	4.0	--	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P4-2	P4-2-1.0	7/14/2022	1.0	<2.8	23	100	<0.46	<0.46	19	9.6	23	13	<0.16	<0.92	31	<2.8	<0.46	<2.8	23	44
		P4-2-2.5	7/14/2022	2.5	<3.1	4.2	200	<0.52	0.55	44	14	27	11	<0.16	<1.0	21	<3.1	<0.52	<3.1	42	44
	P4-3	P4-3-1.0	7/14/2022	1.0	--	29	--	--	--	--	--	--	22	<0.16 R	--	--	--	--	--	--	--
		P4-3-2.5	7/14/2022	2.5	<2.7	8.2	180	<0.45	<0.45	25	9.8	21	12	<0.14	<0.91	34	<2.7	<0.45	<2.7	26	62
	P4-4	P4-4-1.0	7/14/2022	1.0	<2.7	51	85	<0.45	<0.45	16	5.3	36	42	0.81	<0.89	20	<2.7	<0.45	<2.7	24	190
		P4-4-2.5	7/14/2022	2.5	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P4-4-4.0	7/14/2022	4.0	--	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Screening Criteria																					
				Residential DTSC-SLs ²	31	11 ³	15000	16	71	None	23	3100	80	1	390	820	390	390	0.78	390	23000
				Commercial/Industrial DTSC-SLs ²	470	11 ³	220000	230	780	None	350	47000	320	4.4	5800	11000	5800	5800	12	5800	350000
				Total Threshold Limit Concentration ⁴	500	500	10000	75	100	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
				10 x Soluble Threshold Leaching Criteria ⁵	150	50	1000	7.5	10	50	800	250	50	2	3500	200	10	50	70	240	2500
				20x Toxicity Criteria ⁶	None	100	2000	None	20	100	None	None	100	4	None	None	20	100	None	None	None

- Notes:**
1. Soil samples collected by GSI Environmental Inc. and analyzed by Enthalpy Analytical using United States Environmental Protection Agency (USEPA) Methods 6010B and 7471A (for mercury). Select samples were analyzed by McCampbell Analytical for metals using USEPA Method 6020.
 2. Regional screening levels for residential and commercial/industrial soil published by the USEPA (2022) and approved or modified by the California Department of Toxic Substances Control (2022).
 3. Analytical results for arsenic in soil are compared to the 99th percentile of background arsenic concentrations as presented by Duvergé (2011).
 4. Total Threshold Limit Concentration, as presented in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
 5. Ten times the Soluble Threshold Limit Concentration, as presented in CCR, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
 6. Twenty times the Toxicity Criteria, as presented in the Code of Federal Regulations (CFR), Title 40, Part 261, Subpart C, Section 261.24.

Abbreviations:

- < = analyte not detected above the reporting limit shown
- = not analyzed
- bold** = analyte detected above the reporting limit
- Shaded concentrations exceed residential screening criteria
- bgs = below ground surface
- mg/kg = milligrams per kilogram
- UJ = The non-detected data is estimated because the Matrix Spike (MS)/Matrix Spike Duplicate (MSD) results are outside specifications
- R = The data are rejected because the MS/MSD results are outside specifications or the holding time was exceeded

References:
DTSC, 2022, Human and Ecological Risk (HERO), HHRA Note Number 3, May.
Duverge, Dylan Jacques, 2011, Establishing background Arsenic in soil for the Urbanized San Francisco Bay Region, December.
USEPA, 2022, Regional Screening Levels, May.

TABLE 3: POLYCYCLIC AROMATIC HYDROCARBONS IN SOIL¹
HISTORIC SANTA FE RIGHT-OF-WAY
 BERKELEY, CALIFORNIA

Parcel	Boring	Sample Name	Date Collected	Sample Depth feet bgs	Polycyclic Aromatic Hydrocarbons																	BaPe ²		
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene		Pyrene	
					mg/kg																			
1	P1-1	P1-1-1.0	7/13/2022	1.0	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NA	
		P1-1-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
		P1-1-4.0	7/13/2022	4.0	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	NA
	P1-2	P1-2-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
	P1-3	P1-3-1.0	7/13/2022	1.0	0.015	<0.0099	0.029	0.14	0.19	0.15	0.11	0.15	0.17	0.027	0.15	<0.0099	0.15	0.022	0.032	0.05	0.071	0.19	0.26	
2	P2-1	P2-1-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	0.018	0.028	0.024	0.025	0.02	0.022	<0.01	0.036	<0.01	0.028	<0.01	<0.01	<0.01	0.024	0.041	0.045	
		P2-2	P2-2-1.0	7/13/2022	1.0	<0.04	<0.04	<0.04	0.13	0.24	0.18	0.21	0.18	0.14	<0.04	0.12	<0.04	0.25	<0.04	<0.04	<0.04	<0.04	0.16	0.34
	P2-3	P2-3-1.0	7/13/2022	1.0	<0.04	<0.04	<0.04	0.047	0.064	0.063	0.059	0.044	0.059	<0.04	0.061	<0.04	0.058	<0.04	<0.04	<0.04	0.051	0.068	0.12	
		P2-3-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
	P2-4	P2-4-1.0	7/13/2022	1.0	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
3	P3-1	P3-1-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
		P3-2	P3-2-1.0	7/13/2022	1.0	<0.1	<0.1	<0.1	0.16	0.28	0.28	0.22	0.24	0.22	<0.1	0.16	<0.1	0.27	<0.1	<0.1	<0.1	<0.1	0.19	0.45
	P3-2-2.5		7/13/2022	2.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NA
	P3-3	P3-3-1.0	7/13/2022	1.0	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	NA
		P3-3-2.5	7/13/2022	2.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NA
P3-4	P3-4-1.0	7/13/2022	1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NA	
4	P4-1	P4-1-1.0	7/13/2022	1.0	<0.25	<0.25	<0.25	<0.25	0.31	0.29	0.25	0.27	0.26	<0.25	<0.25	<0.25	0.29	<0.25	<0.25	<0.25	<0.25	<0.25	0.26	0.65
		P4-1-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
	P4-2	P4-2-1.0	7/13/2022	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
		P4-2-2.5	7/13/2022	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA
	P4-3	P4-3-1.0	7/13/2022	1.0	<0.01 R	<0.01 R	0.014 J	0.036 J	0.066 J	0.042 J	0.036 J	0.047 J	0.045 J	<0.01 R	0.04 J	<0.01 R	0.039 J	<0.01 R	<0.01 R	<0.01 R	0.019 J	0.048 J	0.088	
		P4-3-2.5	7/13/2022	2.5	0.012	<0.01	0.048	0.079	0.066	0.049	0.033	0.049	0.064	<0.01	0.17	0.021	0.042	<0.01	<0.01	<0.01	0.21	0.16	0.094	
	P4-4	P4-4-1.0	7/13/2022	1.0	<0.2	<0.2	<0.2	1.7	3.5	2.4	2.3	2.4	1.8	0.54	1.1	<0.2	3.1	<0.2	<0.2	<0.2	0.26	1.5	4.8	
		P4-4-2.5	7/13/2022	2.5	<0.01 R	<0.01 R	0.013 J	0.2 J	0.39 J	0.26 J	0.25 J	0.27 J	0.19 J	0.079 J	0.14 J	<0.01 R	0.35 J	<0.01 R	<0.01 R	<0.01 R	0.046 J	0.18 J	0.55	
P4-4-4.0	7/13/2022	4.0	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	<0.0099 R	NA		
Screening Criteria⁴																								
Residential Risk-Based Screening Levels ³					3300	None	17000	1.1	0.11	1.1	None	11	110	0.028	2400	2300	1.1	9.9	None	2	None	1800	0.9 ⁴	
Commercial/Industrial Risk-Based Screening Levels ³					23000	None	130000	12	1.3	13	None	130	1300	0.31	18000	17000	13	30	None	6.5	None	13000	0.9 ⁴	
Total Threshold Limit Concentration ⁵					None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
10x Soluble Threshold Limit Concentration ⁶					None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
20x Toxicity Criteria ⁷					None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	

Notes:

1. Soil samples collected by GSI Environmental Inc. and analyzed by Enthalpy Analytical for polycyclic aromatic hydrocarbons (PAHs) using United States Environmental Protection Agency (USEPA) Method 8270C with selective ion monitoring (SIM).
2. BaPe is calculated using potency equivalency factors for seven PAHs considered carcinogenic by the State of California. These PAHs, with their corresponding equivalency factors, are: benzo(a)anthracene (0.1), benzo(a)pyrene (1), benzo(b)fluoranthene (0.1), benzo(k)fluoranthene (0.1), chrysene (0.01), dibenzo(a,h)anthracene (0.34), and indeno(1,2,3-cd)pyrene (0.1). Note that while naphthalene is the eighth carcinogenic PAH, it is not included in the BaPe because this PAH is evaluated separately from the other PAHs.
3. Regional screening levels for residential and commercial/industrial soil published by the USEPA (2022) and approved or modified by the California Department of Toxic Substances Control (2022).
4. BaPe are compared to the regional ambient level of 0.9 mg/kg established by DTSC (2009).
5. Total Threshold Limit Concentration, as presented in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
6. Ten times the Soluble Threshold Limit Concentration, as presented in CCR, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
7. Twenty times the Toxicity Criteria, as presented in the Code of Federal Regulations (CFR), Title 40, Part 261, Subpart C, Section 261.24.

Abbreviations:

bgs = below ground surface
 BaPe = benzo(a)pyrene equivalent value
 mg/kg = milligrams per kilogram
 NA = not applicable; PAHs were not detected; therefore, a BaPe was not calculated

bold = analyte detected above the reporting limit
 < = analyte not detected above the reporting limit shown
 J = The detected result is estimated because the holding time was exceeded.
 R = The non-detected result is rejected because the holding time was exceeded.

References:

- California Department of Toxic Substances Control (DTSC), 2009, Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, July 1.
- DTSC, 2015, Preliminary Endangerment Assessment Guidance Manual, October.
- DTSC, 2020, Human and Ecological Risk (HERO), HHRA Note Number 3, June.
- United States Environmental Protection Agency, 2020, Regional Screening Levels, November.

TABLE 4: PESTICIDES IN SOIL¹
HISTORIC SANTA FE RIGHT-OF-WAY
BERKELEY, CALIFORNIA

Parcel	Boring	Sample Name	Date Collected	Sample Depth feet bgs	Organochlorine Pesticides																			
					Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
1	P1-1	P1-1-1.0	7/13/2022	1.0	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.02	<0.2	
		P1-1-2.5	7/13/2022	2.5	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01	<0.1
		P1-1-4.0	7/13/2022	4.0	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01	<0.1
	P1-2	P1-2-2.5	7/13/2022	2.5	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0098	<0.098
2	P2-1	P2-1-2.5	7/13/2022	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0099	<0.099
		P2-2	P2-2-1.0	7/13/2022	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	0.012 C J	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.2
	P2-3	P2-3-1.0	7/13/2022	1.0	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.099	<0.0099	0.025	0.024	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.02	<0.2
		P2-3-2.5	7/13/2022	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0099	<0.099
3	P3-1	P3-1-2.5	7/13/2022	2.5	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01	<0.1
		P3-2	P3-2-1.0	7/13/2022	1.0	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.098	<0.0098	0.011 C	0.04	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.02
	P3-3	P3-3-1.0	7/13/2022	1.0	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.099	<0.0099	<0.0099	<0.0099	0.01	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.02	<0.2
		P3-3-2.5	7/13/2022	2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.049	<0.49
4	P4-1	P4-1-1.0	7/13/2022	1.0	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	0.037	0.14	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.5
		P4-1-2.5	7/13/2022	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0099	<0.099
	P4-2	P4-2-1.0	7/13/2022	1.0	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01	<0.1
		P4-2-2.5	7/13/2022	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.1
P4-3	P4-3-2.5	7/13/2022	2.5	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01	<0.1	
	P4-4	P4-4-1.0	7/13/2022	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.2
Screening Criteria																								
Residential Risk-Based Screening Levels ²					0.039	0.086	0.3	0.3	0.57	1.7	2.3	2	1.9	0.034	470	470	380	19	19	19	0.13	0.07	320	0.45
Commercial/Industrial Risk-Based Screening Levels ²					0.18	0.36	1.3	1.3	2.5	6.1	6.2	9.3	7.1	0.093	7000	7000	4900	250	250	250	0.63	0.33	4100	1.2
Total Threshold Limit Concentration ³					1.4	None	None	None	None	2.5	1.0	1.0	1.0	8	None	None	None	0.2	None	None	4.7	None	100	5
10x Soluble Threshold Limit Concentration ⁴					1.4	None	None	None	None	2.5	1.0	1.0	1.0	8	None	None	None	0.2	None	None	4.7	None	100	5
20x Toxicity Criteria ⁵					None	None	None	None	8	0.6	None	None	None	None	None	None	0.4	None	None	0.16	None	200	10	

Notes:

1. Soil samples collected by GSI Environmental Inc. and analyzed by Enthalpy Analytical for organochlorine pesticides using United States Environmental Protection Agency (USEPA) Method 8081A.
2. Regional screening levels for residential and commercial/industrial soil published by the USEPA (2022) and approved or modified by the California Department of Toxic Substances Control (2022).
3. Total Threshold Limit Concentration, as presented in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
4. Ten times the Soluble Threshold Limit Concentration, as presented in CCR, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
5. Twenty times the Toxicity Criteria, as presented in the Code of Federal Regulations (CFR), Title 40, Part 261, Subpart C, Section 261.24.

Abbreviations:

- < = analyte not detected above the reporting limit shown
- bold** = analyte detected above the reporting limit
- bgs = below ground surface
- mg/kg = milligrams per kilogram
- C = Presence confirmed, but the Relative Percent Difference (RPD) between columns exceeds 40%
- J = The detected result is an estimate

References:

- DTSC, 2020, Human and Ecological Risk (HERO), HHRA Note Number 3, June.
- United States Environmental Protection Agency, 2020, Regional Screening Levels, November.

TABLE 5: TOTAL PETROLEUM HYDROCARBONS IN SOIL¹
HISTORIC SANTA FE RIGHT-OF-WAY
BERKELEY, CALIFORNIA

Parcel	Boring	Sample Name	Date Collected	Sample Depth feet bgs	Total Petroleum Hydrocarbons	
					TPH-d	TPH-mo
					mg/kg	
1	P1-1	P1-1-1.0	7/13/2022	1.0	<10	<20
		P1-1-2.5	7/13/2022	2.5	<10	<20
		P1-1-4.0	7/13/2022	4.0	<10	<20
	P1-2	P1-2-2.5	7/13/2022	2.5	<10	<20
	P1-3	P1-3-1.0	7/13/2022	1.0	14	22
2	P2-1	P2-1-2.5	7/13/2022	2.5	<10	<20
	P2-2	P2-2-1.0	7/13/2022	1.0	20	51
	P2-3	P2-3-1.0	7/13/2022	1.0	25	61
		P2-3-2.5	7/13/2022	2.5	<10	<20
	P2-4	P2-4-1.0	7/13/2022	1.0	47	89
3	P3-1	P3-1-2.5	7/13/2022	2.5	<10	<20
	P3-2	P3-2-1.0	7/13/2022	1.0	<50	<100
		P3-2-2.5	7/13/2022	2.5	<10	<20
	P3-3	P3-3-1.0	7/13/2022	1.0	120	87
		P3-3-2.5	7/13/2022	2.5	160	490
P3-4	P3-4-1.0	7/13/2022	1.0	65	210	
4	P4-1	P4-1-1.0	7/13/2022	1.0	<50	<100
		P4-1-2.5	7/13/2022	2.5	<10	<20
	P4-2	P4-2-1.0	7/13/2022	1.0	<10	<20
		P4-2-2.5	7/13/2022	2.5	<10	<20
	P4-3	P4-3-2.5	7/13/2022	2.5	<10	<20
	P4-4	P4-4-1.0	7/13/2022	1.0	45	76
Screening Criteria						
Residential Risk-Based Screening Levels ²					260	12,000
Commercial/Industrial Risk-Based Screening Levels ²					1,200	180,000
Total Threshold Limit Concentration ³					None	None
10x Soluble Threshold Limit Concentration ⁴					None	None
20x Toxicity Criteria ⁵					None	None

Notes:

- Soil samples collected by GSI Environmental Inc. and analyzed by Enthalpy Analytical for TPH using United States Environmental Protection Agency (USEPA) Method 8015M.
- Direct exposure environmental screening levels for human health published by the San Francisco Bay Regional Water Quality Control Board (Water Board, 2019).
- Total Threshold Limit Concentration, as presented in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
- Ten times the Soluble Threshold Limit Concentration, as presented in CCR, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.
- Twenty times the Toxicity Criteria, as presented in the Code of Federal Regulations (CFR), Title 40, Part 261, Subpart C, Section 261.24.

Abbreviations:

< = analyte not detected above the reporting limit shown
bold = analyte detected above the reporting limit
bgs = below ground surface
mg/kg = milligrams per kilogram
TPH = total petroleum hydrocarbons
TPHd = TPH quantified as diesel (diesel range organics [DRO] C10-C28)
TPHmo = TPH quantified as motor oil (oil range organics [ORO] C28-C44)

References:

San Francisco Bay Regional Water Quality Control Board (Water Board), 2019, Environmental Screening Levels, Summary Tables, January (Rev. 2).

**SANTA FE RIGHT-OF-WAY PHASE II ENVIRONMENTAL SITE ASSESSMENT-
REPORT OF FINDINGS**
Historic Santa Fe Right-of-Way
Berkeley, California

FIGURES

Figure 1	Site Location Map
Figure 2	Site Overview
Figure 3	Parcel 1 Site Plan
Figure 4	Parcel 2 Site Plan
Figure 5	Parcel 3 Site Plan
Figure 6	Parcel 4 Site Plan



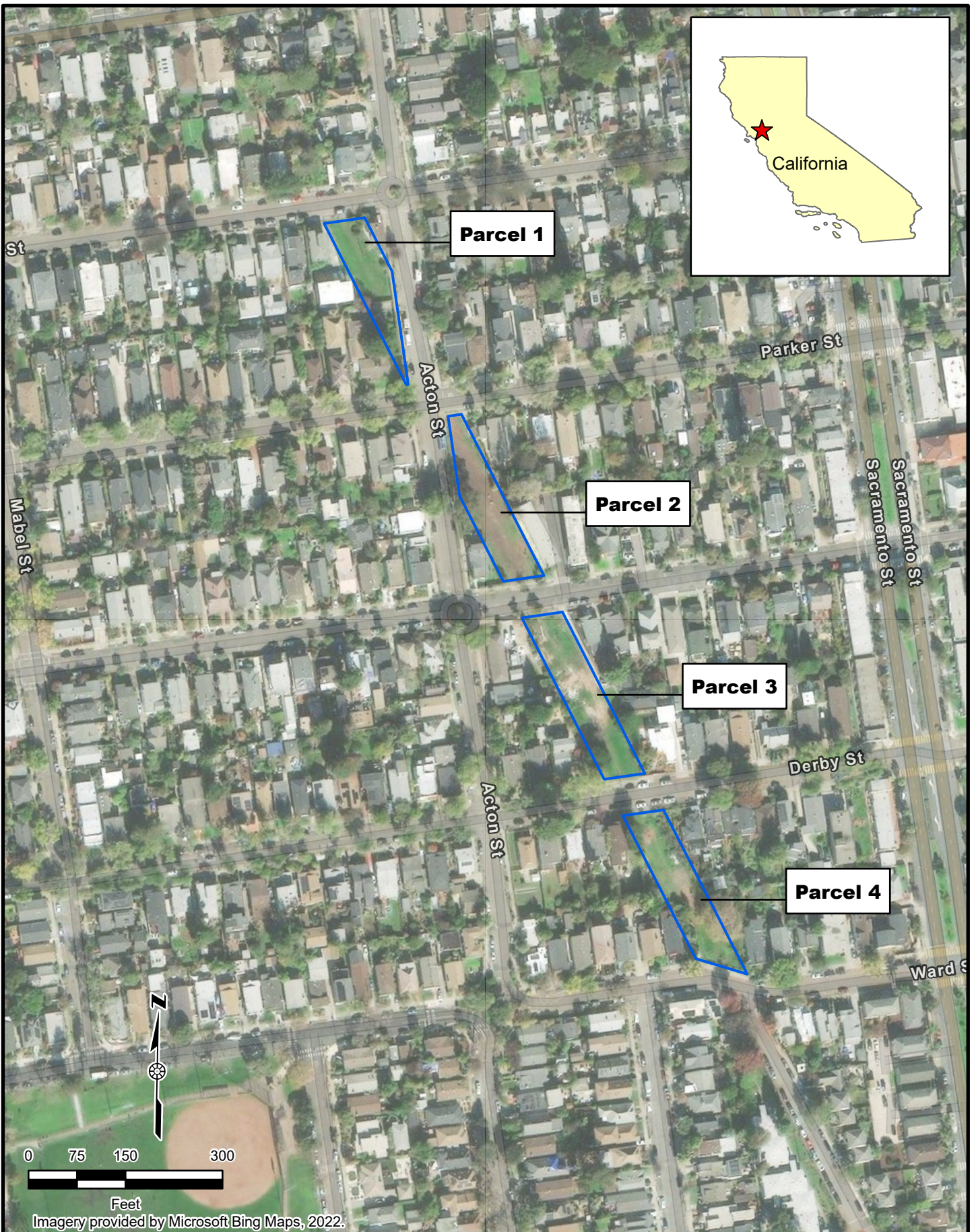
Imagery provided by Microsoft Bing Maps, 2022.



GSI job No.	6272	Drawn By:	AV
Issued:	24-Jun-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_SiteLocMap	FIGURE 1	

SITE LOCATION MAP

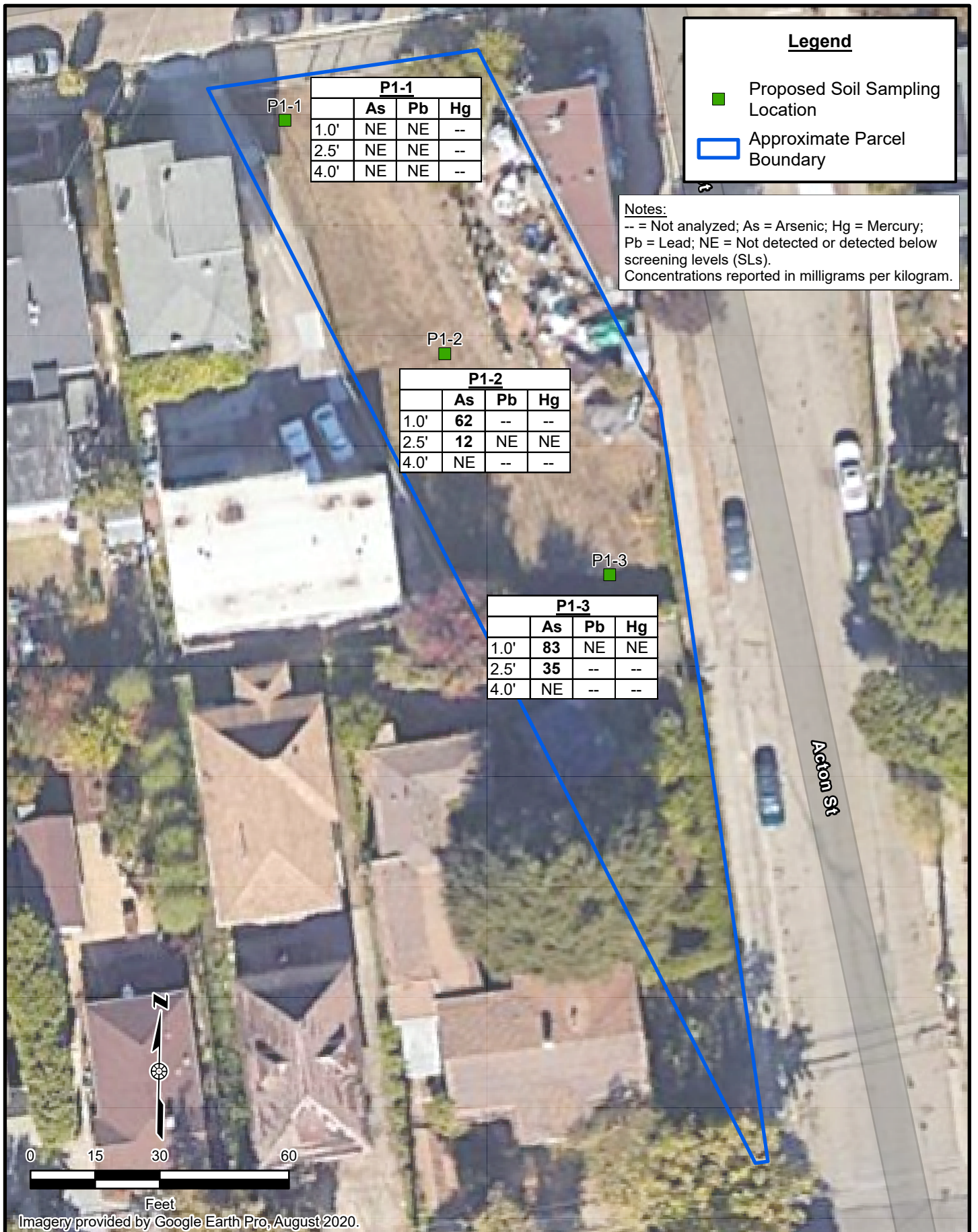
Sante Fe Right-of-Way
Berkeley, California



GSI job No.	6272	Drawn By:	AV
Issued:	18-Nov-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_SiteOverview	FIGURE 2	

SITE OVERVIEW

Sante Fe Right-of-Way
Berkeley, California



GSI job No.	6272	Drawn By:	AV
Issued:	18-Nov-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_Parcel1	FIGURE 3	

PARCEL 1 SITE PLAN

Santa Fe Right-of-Way
Berkeley, California

Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary



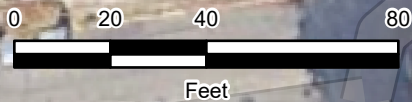
P2-1			
	As	Pb	Hg
1.0'	28	210	--
2.5'	26	NE	NE
4.0'	24	--	--

P2-2			
	As	Pb	Hg
1.0'	37	200	NE
2.5'	41	NE	--
4.0'	NE	NE	--

P2-3			
	As	Pb	Hg
1.0'	32	140	NE
2.5'	NE	NE	NE
4.0'	--	--	--

P2-4			
	As	Pb	Hg
1.0'	220	NE	2.1
2.5'	NE	NE	NE
4.0'	NE	--	--

Notes:
 -- = Not analyzed; As = Arsenic; Hg = Mercury;
 Pb = Lead; NE = Not detected or detected below screening levels (SLs).
 Concentrations reported in milligrams per kilogram.



Imagery provided by Google Earth Pro, August 2020.



GSI job No.	6272	Drawn By:	AV
Issued:	18-Nov-2022	Chk'd By:	TRK
		Appv'd By:	JPD
Map ID:	SFROW_Parcel2	FIGURE 4	

PARCEL 2 SITE PLAN

Santa Fe Right-of-Way
 Berkeley, California



Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary

P3-1

	As	Pb	Hg
1.0'	63	NE	NE
2.5'	NE	NE	NE
4.0'	--	--	--

P3-2

	As	Pb	Hg
1.0'	120	NE	1.7
2.5'	67	NE	NE
4.0'	NE	--	--

P3-3

	As	Pb	Hg
1.0'	12	84	NE
2.5'	NE	NE	NE
4.0'	--	--	--

P3-4

	As	Pb	Hg
1.0'	13	NE	NE
2.5'	47	--	--
4.0'	52	--	--



Notes:
 -- = Not analyzed; As = Arsenic; Hg = Mercury;
 Pb = Lead; NE = Not detected or detected below screening levels (SLs); R = results rejected based on data quality review.
 Concentrations reported in milligrams per kilogram.

Imagery provided by Google Earth Pro, August 2020.

	GSI job No. 6272	Drawn By: AV	<p>PARCEL 3 SITE PLAN</p> <p>Santa Fe Right-of-Way Berkeley, California</p>
	Issued: 18-Nov-2022	Chk'd By: TRK	
		Appv'd By: JPD	
	Map ID: SFROW_Parcel3	FIGURE 5	

Derby St

Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary

P4-1			
	As	Pb	Hg
1.0'	140	280	2.1
2.5'	88	NE	NE
4.0'	NE	--	--

P4-1

P4-2			
	As	Pb	Hg
1.0'	23	NE	NE
2.5'	NE	NE	NE
4.0'	--	--	--

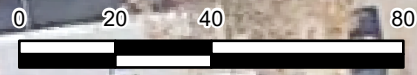
P4-2

P4-3			
	As	Pb	Hg
1.0'	29	NE	NE
2.5'	NE	NE	NE
4.0'	--	--	--

P4-3

P4-4				
	As	Pb	Hg	BaPe
1.0'	51	NE	NE	4.8
2.5'	12	--	--	NE
4.0'	NE	--	--	NA

P4-4



Imagery provided by Google Earth Pro, August 2020.

Ward St

Dohr St

Notes:
 -- = Not analyzed; As = Arsenic; Hg = Mercury;
 Pb = Lead; BaPe = Benzo(a)pyrene equivalent;
 NA = Not applicable; NE = Not detected or
 detected below screening levels (SLs); R = results
 rejected based on data quality review.
 Concentrations reported in milligrams per kilogram.



GSI job No.	6272	Drawn By:	AV
Issued:	18-Nov-2022	Chk'd By:	TRK
		Appv'd By:	JPD
Map ID:	SFROW_Parcel4	FIGURE 6	

PARCEL 4 SITE PLAN

Santa Fe Right-of-Way
 Berkeley, California

**SANTA FE RIGHT-OF-WAY PHASE II ENVIRONMENTAL SITE ASSESSMENT-
REPORT OF FINDINGS**
Historic Santa Fe Right-of-Way
Berkeley, California

ATTACHMENT A

City of Berkeley Boring Permit



Planning and Development Department
 Toxics Management Division
 A Certified Unified Program Agency

TMD Use Only	
Permit No.:	23-EB-02 (expires 120 days from approval)
Permit Fee:	NA Check #: NA
Approved by:	Meridith Lear Date: July 13, 2022
Admin:	Contractor Licenses – Reviewed by: _____
	Geo/Eng license Y/N CoB Business Y/N
	Driller license Y/N CoB Business Y/N
	Documents Scanned by: _____

Revised 7/10/2018

SUBSURFACE DRILLING PERMIT APPLICATION

Purpose of Application	<input type="checkbox"/> Groundwater Monitoring/Vapor Well Installation <input type="checkbox"/> Groundwater Monitoring/Vapor Well Destruction (Provide approval letter from oversight agency) <input type="checkbox"/> Well Modification (pumps, vacuums, probes, elevation, etc.)	<input checked="" type="checkbox"/> Soil Borings, probes, sampling points Number of Borings: 15
	Number of Wells: _____	<input type="checkbox"/> Extension of Permit # _____

Name of Facility: Berkeley Santa Fe Right-of-Way	
Address: Parcel 1 (Blake St. to Parker St.), Parcel 2 (Parker St. to Carleton St.), Parcel 3 (Carleton St. to Derby St.), Parcel 4 (Derby St. to Ward St.)	
Business Telephone: (510) 981-6738	Emergency Telephone:

Property Owner: City of Berkeley
Owner Address: 1947 Center St. 5th Floor Berkeley, CA 94704

Supervising Geological or Engineering Co.:	GSI Environmental Inc.	City of Berkeley Business Lic #:	BL-012951
Address/City: 155 Grand Ave, Suite 704			
Geol/Eng Lic. #: CA PE #C59161	Tel.: 510-821-8925	Fax:	
Contact Person: Jennifer Duffield	Email: jpduffield@gsienv.com		

Drilling Co.:	Penecore Drilling	City of Berkeley Business Lic #:	BL-050226
Address/City: 220 N. East St. Woodland, CA 95776			
C-57 License #: 906899	Exp. Date: 11/30/2023	Tel.: 530-661-3600	Fax:
Local Contact Person: Xavier Green		Email: Xavier@penecore.com	

Construction/Destruction Specifications (attach information as needed for multiple construction types)			
Borehole/Well Casing Diameter: 3.25 inches		Gauge of Well Casing: NA	
Borehole/Well Depth: 4 feet	Well Screen type: NA	Slot Size: NA	
Type of grout (specify mix or product): As discussed with Meridith Lear via email on 6/30/22, borings will be backfilled with clean fill/potting soil.			

- Provide a scaled plan identifying the proposed drilling locations, property boundaries, streets, structures, pollution source areas.
- Call the Toxics Management Division (TMD) at (510) 981-7460 to schedule an inspection of the grout sealing of wells, probes and boreholes. **Notify TMD a minimum of two (2) working days in advance** of first scheduled day of drilling
- This permit is subject to the Conditions of Approval stated on the following page.

I certify that I have prepared this application and that the work will be done in accordance with the conditions of this permit, the provisions of the laws of the State of California, including State Water Well Standards, and the ordinances and the rules and regulations of the City of Berkeley.

Signed Jennifer P. Duffield Representing GSI Environmental Inc. Date 7/7/2022

FEES: First Well/Each add'l: \$420/\$150	First Soil Boring/Each add'l: \$210/\$150
---	--

CONDITIONS OF APPROVAL:

- A. Applicant must possess a City of Berkeley Business License. Contact (510) 981-7200.
- B. Call the Toxics Management Division (TMD) at (510) 981-7460 and schedule an inspection of the grout sealing of boreholes, probes, or wells. Notify TMD a minimum of two (2) working days in advance of first scheduled day of drilling (review City holidays and reduced service days at <http://ci.berkeley.ca.us/>). Failure to notify staff of cancellation or delays may result in the applicant being billed for mobilization time.
- C. All borings must be properly destroyed (grouted/sealed) within 24 hours of drilling, unless special conditions are approved beforehand in writing as part of this permit, and must be continuously protected and stabilized.
- D. Proper storage, labeling & disposal of investigation-derived residual wastes are the responsibility of the consultant unless stated otherwise contractually. Wastes must be removed from the site within 2 weeks of conclusion of the drilling.
- E. Analytical results of all soil, vapor, and groundwater samples collected during the execution of drilling under this permit must be submitted to Toxics Management Division within 60 days of sample collection.
- F. If your permit was for construction, alteration, or destruction of a water well, cathodic protection well, groundwater monitoring well, etc., you must file a report of completion within 60 days of the completion of the work through the Department of Water Resources Online System of Well Completion Reports (OSWCR), https://civicnet.resources.ca.gov/DWR_WELLS/.
- G. A copy of the boring logs, well construction details, confirmation of submittal of the well completion report through OSWCR, and finalized as-built locations for all borings/wells (except geotechnical borings), must be submitted to TMD within 60 days of drilling/construction/destruction.
- H. Permit is valid for 120 days for the purpose specified herein. Construction aspects can be changed based on conditions encountered in the field. The permit is valid for only one TMD inspection.
- I. Wells installed under this permit may not be used for domestic, municipal, agricultural, or irrigation water supply.
- J. All work performed must conform to Business and Profession Codes and State Water Well Standards.
- K. The permit applicant and the property owner are required to ensure stormwater pollution prevention is implemented throughout the drilling process.
- L. Drilling company is required to contain all fluids and solids in compliance with stormwater pollution prevention rules. Any violation will lead to stop work, or cleanup order and potential enforcement.



GSI job No.	6272	Drawn By:	AV
Issued:	27-Jun-2022	Chk'd By:	TRK
		Appv'd By:	JPD
Map ID:	SFROW_Parcel1		FIGURE 2

PARCEL 1 SITE PLAN

Santa Fe Right-of-Way
Berkeley, California



Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary

Feet

Imagery provided by Google Earth Pro, August 2020.



GSI job No.	6272	Drawn By:	AV
Issued:	24-Jun-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_Parcel2	FIGURE 3	

PARCEL 2 SITE PLAN

Santa Fe Right-of-Way
Berkeley, California



Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary


 0 20 40 80

 Feet
 Imagery provided by Google Earth Pro, August 2020.



GSI job No.	6272	Drawn By:	AV
Issued:	24-Jun-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_Parcel3	FIGURE 4	

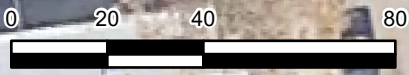
PARCEL 3 SITE MAP

Santa Fe Right-of-Way
 Berkeley, California



Legend

- Proposed Soil Sampling Location
- Approximate Parcel Boundary



Imagery provided by Google Earth Pro, August 2020.



GSI job No.	6272	Drawn By:	AV
Issued:	24-Jun-2022	Chk'd By:	TRK
		App'v'd By:	JPD
Map ID:	SFROW_Parcel4	FIGURE 5	

PARCEL 4 SITE PLAN

Santa Fe Right-of-Way
Berkeley, California

**SANTA FE RIGHT-OF-WAY PHASE II ENVIRONMENTAL SITE ASSESSMENT-
REPORT OF FINDINGS**
Historic Santa Fe Right-of-Way
Berkeley, California

ATTACHMENT B

Analytical Laboratory Reports



ENTHALPY
ANALYTICAL

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

enthalpy.com

Lab Job Number: 465695
Report Level: II
Report Date: 08/04/2022

Analytical Report *prepared for:*

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Project: 6272 - Berkeley Santa Fe Row

Authorized for release by:

Sophia Baughman, Project Manager
sophia.baughman@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

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Lab Job #: 465695
Project No: 6272
Location: Berkeley Santa Fe Row
Date Received: 07/13/22

Sample ID	Lab ID	Collected	Matrix
PI-1-1.0	465695-001	07/13/22 10:10	Soil
PI-1-2.5	465695-002	07/13/22 10:15	Soil
PI-1-4.0	465695-003	07/13/22 10:20	Soil
P1-2-1.0	465695-004	07/13/22 10:40	Soil
P1-2-2.5	465695-005	07/13/22 10:45	Soil
P1-2-4.0	465695-006	07/13/22 10:50	Soil
P1-3-1.0	465695-007	07/13/22 11:15	Soil
P1-3-2.5	465695-008	07/13/22 11:40	Soil
P1-3-4.0	465695-009	07/13/22 11:55	Soil
P2-1-1.0	465695-010	07/13/22 13:20	Soil
P2-1-2.5	465695-011	07/13/22 13:30	Soil
P2-1-4.0	465695-012	07/13/22 13:35	Soil
P2-2-1.0	465695-013	07/13/22 13:55	Soil
P2-2-2.5	465695-014	07/13/22 14:00	Soil
P2-2-4.0	465695-015	07/13/22 14:05	Soil
P2-3-1.0	465695-016	07/13/22 14:45	Soil
P2-3-2.5	465695-017	07/13/22 14:50	Soil
P2-3-4.0	465695-018	07/13/22 15:00	Soil
P2-4-1.0	465695-019	07/13/22 15:15	Soil
P2-4-2.5	465695-020	07/13/22 15:25	Soil
P2-4-4.0	465695-021	07/13/22 15:30	Soil

Case Narrative

GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612
Jennifer Duffield

Lab Job Number: 465695
Project No: 6272
Location: Berkeley Santa Fe Row
Date Received: 07/13/22

This data package contains sample and QC results for ten soil samples, requested for the above referenced project on 07/13/22. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

No analytical problems were encountered.

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

- High responses were observed for benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene in the CCV analyzed 07/22/22 14:12; affected data was qualified with "b".
- High recoveries were observed for 2-methylnaphthalene and naphthalene in the MSD of P2-4-1.0 (lab # 465695-019); the LCS was within limits, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples.
- A number of samples were diluted due to the dark and viscous nature of the sample extracts.
- No other analytical problems were encountered.

Pesticides (EPA 8081A):

- PI-1-1.0 (lab # 465695-001) was diluted due to the color of the sample extract.
- P2-2-1.0 (lab # 465695-013), P2-3-1.0 (lab # 465695-016), and P2-4-1.0 (lab # 465695-019) were diluted due to the dark color of the sample extracts.
- No other analytical problems were encountered.

(EPA 6020):

McC Campbell Analytical, Inc. in Pittsburg, CA performed the analysis (see sublab report section for certifications). Please see the McC Campbell Analytical, Inc. case narrative.

5-13

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley
2323 5th Street, Berkeley, CA 94710
Phone 510-486-0900

Chain of Custody Record
Lab No: 465695
Page: 1 of 3

Turn Around Time (rush by advanced notice only)
Standard: X
5 Day:
2 Day:
1 Day:
3 Day:
Custom TAT:

Matrix: A = Air S = Soil/Solid
W = Water DW = Drinking Water SD = Sediment
PP = Pure Product SEA = Sea Water
SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
4 = H₂SO₄ 5 = NaOH 6 = Other
Sample Receipt Temp:
9.3/3.8
(lab use only)

CUSTOMER INFORMATION			PROJECT INFORMATION			Analysis Request		Test Instructions / Comments	
Company:	Name:	Report To:	Matrix:	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
GSI Environmental	Jennifer Duffield, Tiffany Kitzke	Jennifer Duffield, Tiffany Kitzke	Berkeley Santa Fe Row	1	7/13/22	1010	SO	8oz jar	-
	UPDUFFIELD@gsienv.com TKITZKE@GSIENV.COM		6272-002	2		1015	SO		
	155 Grand Ave, Suite 704		6272-002	3		1020	SO		
	Oakland, CA 94612			4		1040	SO		
	831-227-5144			5		1045	SO		
			NA	6		1050	SO		
			T. Kitzke	7		1115	SO		
				8		1140	SO		
				9		1155			
				10		1320			
Signature			Print Name			Company / Title		Date / Time	
[Signature]			Tiffany Kitzke			GSI / Senior Scientist		7/13/22 1636	
[Signature]			DAPHNE BAUBERMAN			EA		7/13/22 1636	
[Signature]			W. P. [Signature]			EA		7/14/22 11:27	
[Signature]			ERIC GADNER			EA		7/15/22 1006	
[Signature]									
[Signature]									

If metals are received, please send preliminary results to the lab.

OCPS by 80817
TPHD/THMO by 8015
PARTS by 80700 (SIN)
HOLD

Title 22 metals by 601617471



Enthalpy Analytical - Berkeley
 2323 5th Street, Berkeley, CA 94710
 Phone 510-486-0900

Chain of Custody Record
 Lab No: 465695
 Page: 2 of 3

Turn Around Time (rush by advanced notice only)

Standard:	5 Day:	3 Day:
	X	
2 Day:	1 Day:	Custom TAT:

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION				Analysis Request		Test Instructions / Comments	
Company:	GSI Environmental	Name:	Berkeley Santa Fe Row						
Report To:	Jennifer Duffield, Tiffany Kitzke	Number:	6272-002						
Email:	jduffield@gsienv.com, tkitzke@gsienv.com	P.O. #:	6272-002						
Address:	155 Grand Ave, Suite 704 Oakland, CA 94612	Address:							
Phone:	831-227-5144	Global ID:	NA						
		Sampled By:	T. Kitzke						

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1 P2-1-2.5	7/13/22	1330	SD	8oz jar	-
2 P2-1-4.0		1335			
3 P2-2-1.0		1355			
4 P2-2-2.5		1400			
5 P2-2-4.0		1405			
6 P2-3-1.0		1445			
7 P2-3-2.5		1450			
8 P2-3-4.0		1500			
9 P2-4-1.0		1515			
10 P2-4-2.5		1525			

Notes: The 22 metals by WSP/7M, CEs by 8081A, TPA/7M by 8015, Parts by 8080C SIM, HOLD

Signature	Print Name	Company / Title	Date / Time
<i>[Signature]</i>	Tiffany Kitzke	GSI / Senior Scientist	7/13/22 / 1436
<i>[Signature]</i>	WSP/7M BAUGHMAN	EA	7/13/22 1436
<i>[Signature]</i>	WSP/7M	EA	7/14/22 1107
<i>[Signature]</i>	ERIC GALVAN	EA	7/15/22 1006
1 Relinquished By:			
2 Relinquished By:			
3 Relinquished By:			



Enthalpy Analytical - Berkeley
 2323 5th Street, Berkeley, CA 94710
 Phone 510-486-0900

Chain of Custody Record

Lab No: 465695

Page: 3 of 3

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Turn Around Time (rush by advanced notice only)

Standard: 5 Day: 3 Day:
 2 Day: 1 Day: Custom TAT:

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments				
Company:	GSI Environmental	Name:	Berkeley Santa Fe Row	Sample ID:	P2-4-4.0	Sampling Date:	7/13/22	Sampling Time:	1530	Matrix:	SO	Container No. / Size:	8 oz jar	Pres.:	-	
Report To:	Jennifer Duffield, Tiffany Kitzke	Number:	6272-002	Global ID:	NA	Sampled By:	T. Kitzke									
Email:	jduffield@gsienv.com, tkitzke@gsienv.com	P.O. #:	6272-002													
Address:	155 Grand Ave, Suite 704	Address:	Oakland, CA 94612													
Phone:	831-227-5144															
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
1	Relinquished By:	<i>[Signature]</i>														
1	Received By:	<i>[Signature]</i>	Tiffany Kitzke													
2	Relinquished By:	<i>[Signature]</i>	BOBBA BAUGHMAN													
2	Received By:	<i>[Signature]</i>	inse Ray													
3	Relinquished By:	<i>[Signature]</i>	Eric Galvan													
3	Received By:	<i>[Signature]</i>	EA													

SAMPLE RECEIPT CHECKLIST



Section 1: Login # 465675 Client: GSI
 Date Received: 7/13/22 Project: _____

Section 2: Shipping info (if applicable) _____
 Are custody seals present? No, or Yes. If yes, where? on cooler, on samples, on package
 Date: _____ How many _____ Signature, Initials, None
 Were custody seals intact upon arrival? Yes No N/A
 Samples received in a cooler? Yes, how many? 1 No (skip Section 3 below)
 If no cooler Sample Temp (°C): _____ using IR Gun # B, or C
 Samples received on ice directly from the field. Cooling process had begun
 If in cooler: Date Opened 7/13/22 By (print) my (sign) _____

Section 3: **Important: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____
 Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels
 Samples received on ice directly from the field. Cooling process had begun
 Type of ice used: Wet, Blue/Gel, None Temperature blank(s) included? Yes, No
 Temperature measured using Thermometer ID: _____, or IR Gun # B C
 Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	<input checked="" type="checkbox"/>		
Were Method 5035 sampling containers present?		<input checked="" type="checkbox"/>	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	<input checked="" type="checkbox"/>		
Are there any missing / extra samples?		<input checked="" type="checkbox"/>	
Are samples in the appropriate containers for indicated tests?	<input checked="" type="checkbox"/>		
Are sample labels present, in good condition and complete?	<input checked="" type="checkbox"/>		
Does the container count match the COC?	<input checked="" type="checkbox"/>		
Do the sample labels agree with custody papers?	<input checked="" type="checkbox"/>		
Was sufficient amount of sample sent for tests requested?	<input checked="" type="checkbox"/>		
Did you change the hold time in LIMS for unpreserved VOAs?			<input checked="" type="checkbox"/>
Did you change the hold time in LIMS for preserved terracores?			<input checked="" type="checkbox"/>
Are bubbles > 6mm present in VOA samples?			<input checked="" type="checkbox"/>
Was the client contacted concerning this sample delivery?		<input checked="" type="checkbox"/>	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check? pH strip lot# _____, pH strip lot# _____, pH strip lot# _____			
Preservative added:			
<input type="checkbox"/> H2SO4 lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> HCL lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> HNO3 lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> NaOH lot# _____ added to samples _____ on/at _____			

Section 6:
 Explanations/Comments: _____

Date Logged in 7/13/22 By (print) my PERSHIE (sign) _____
 Date Labeled 7/14/22 By (print) UEP (sign) _____



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: GSI Environmental Project: Berkeley Santa Fe Row
 Date Received: 7/15/2022 Sampler's Name Present: Yes No

Section 2

Sample(s) received in a cooler? Yes, How many? 1 NO (skip section 2) Sample Temp (°C) (No Cooler) : _____
 Sample Temp (°C), One from each cooler: #1: 9.3 #2: _____ #3: _____ #4: _____
(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)
 Shipping Information: Greyhound

Section 3

Was the cooler packed with: Ice Ice Packs Bubble Wrap Styrofoam
 Paper None Other _____
 Cooler Temp (°C): #1: 3.8 #2: _____ #3: _____ #4: _____

Section 4

	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Are sample IDs present?	<input checked="" type="checkbox"/>		
Are sampling dates & times present?	<input checked="" type="checkbox"/>		
Is a relinquished signature present?	<input checked="" type="checkbox"/>		
Are the tests required clearly indicated on the COC?	<input checked="" type="checkbox"/>		
Are custody seals present?		<input checked="" type="checkbox"/>	
If custody seals are present, were they intact?			<input checked="" type="checkbox"/>
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			<input checked="" type="checkbox"/>
Did all samples arrive intact? If no, indicate in Section 4 below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were the samples collected in the correct containers for the required tests?	<input checked="" type="checkbox"/>		
Are the containers labeled with the correct preservatives?			<input checked="" type="checkbox"/>
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			<input checked="" type="checkbox"/>
Was a sufficient amount of sample submitted for the requested tests?	<input checked="" type="checkbox"/>		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time: _____
 Email (email sent to/on): _____ / _____
 Project Manager's response: _____

Completed By: Yamita Date: 7/15/2022

STD PPD

14JUL22 06:53P

** LABEL **

GLI 3090284120

Schd: GLI 6747

Pcs: 7 of 8

LOS ANGELES, CA



FROM: ENTHALPY ANALYTICAL
000-000-0000

RECV: ENTHALPY ANALYTICAL

931 W. BARKLEY AVE

Manual Wght: 462.4

Tariff Wght: 465.0

ORANGE, CA 92868

Phone: 925-487-8029
Standard

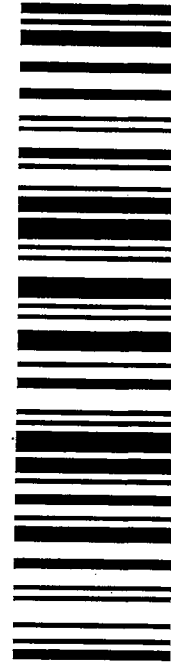
PO/Ref #:

Agency Phone: (213) 629-8420

WWW.SHIPGREYHOUND.COM



PACKAGE EXPRESS



A8648596B

LBLBC-GPX (REV 11/19)

Analysis Results for 465695

Jennifer Duffield
 GSI Environmental, Inc.
 155 Grand Ave
 Suite 704
 Oakland, CA 94612

Lab Job #: 465695
 Project No: 6272
 Location: Berkeley Santa Fe Row
 Date Received: 07/13/22

Sample ID: PI-1-1.0 Lab ID: 465695-001 Collected: 07/13/22 10:10
Matrix: Soil

465695-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	93%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
beta-BHC	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
gamma-BHC	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
delta-BHC	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Heptachlor	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Aldrin	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Heptachlor epoxide	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endosulfan I	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Dieldrin	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
4,4'-DDE	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endrin	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endosulfan II	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endosulfan sulfate	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
4,4'-DDD	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endrin aldehyde	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Endrin ketone	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
4,4'-DDT	ND		ug/Kg	9.9	2	293616	07/22/22	07/24/22	TRN
Methoxychlor	ND		ug/Kg	20	2	293616	07/22/22	07/24/22	TRN
Toxaphene	ND		ug/Kg	200	2	293616	07/22/22	07/24/22	TRN
Chlordane (Technical)	ND		ug/Kg	99	2	293616	07/22/22	07/24/22	TRN
Surrogates				Limits					
TCMX	61%		%REC	23-120	2	293616	07/22/22	07/24/22	TRN
Decachlorobiphenyl	81%		%REC	24-120	2	293616	07/22/22	07/24/22	TRN
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Acenaphthylene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Phenanthrene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Fluoranthene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Pyrene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Chrysene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	20	2	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	100%		%REC	27-125	2	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	85%		%REC	30-120	2	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	93%		%REC	33-155	2	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: PI-1-2.5	Lab ID: 465695-002	Collected: 07/13/22 10:15
Matrix: Soil		

465695-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	100%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDD	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293616	07/22/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	100	1	293616	07/22/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293616	07/22/22	07/24/22	TJW
Surrogates			Limits						
TCMX	71%		%REC	23-120	1	293616	07/22/22	07/24/22	TJW
Decachlorobiphenyl	89%		%REC	24-120	1	293616	07/22/22	07/24/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Phenanthrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Chrysene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	82%		%REC	27-125	1	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	69%		%REC	30-120	1	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	88%		%REC	33-155	1	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: PI-1-4.0	Lab ID: 465695-003	Collected: 07/13/22 10:20
Matrix: Soil		

465695-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	94%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDD	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293616	07/22/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293616	07/22/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	100	1	293616	07/22/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293616	07/22/22	07/24/22	TJW
Surrogates			Limits						
TCMX	69%		%REC	23-120	1	293616	07/22/22	07/24/22	TJW
Decachlorobiphenyl	105%		%REC	24-120	1	293616	07/22/22	07/24/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Phenanthrene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Fluoranthene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Chrysene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	94%		%REC	27-125	0.99	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	74%		%REC	30-120	0.99	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	84%		%REC	33-155	0.99	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: P1-2-2.5	Lab ID: 465695-005	Collected: 07/13/22 10:45
Matrix: Soil		

465695-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	94%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Aldrin	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endrin	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
4,4'-DDD	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	4.9	0.98	293616	07/22/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	9.8	0.98	293616	07/22/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	98	0.98	293616	07/22/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	49	0.98	293616	07/22/22	07/24/22	TJW
Surrogates			Limits						
TCMX	64%		%REC	23-120	0.98	293616	07/22/22	07/24/22	TJW
Decachlorobiphenyl	100%		%REC	24-120	0.98	293616	07/22/22	07/24/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Phenanthrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Chrysene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	96%		%REC	27-125	1	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	82%		%REC	30-120	1	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	96%		%REC	33-155	1	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: P1-3-1.0	Lab ID: 465695-007	Collected: 07/13/22 11:15
Matrix: Soil		

465695-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	14		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	22		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	80%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Aldrin	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endrin	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
4,4'-DDD	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	5.0	1	293616	07/22/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293616	07/22/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	100	1	293616	07/22/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	50	1	293616	07/22/22	07/24/22	TJW
Surrogates			Limits						
TCMX	74%		%REC	23-120	1	293616	07/22/22	07/24/22	TJW
Decachlorobiphenyl	94%		%REC	24-120	1	293616	07/22/22	07/24/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	22		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	32		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Naphthalene	50		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Acenaphthene	15		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Phenanthrene	71		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Anthracene	29		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Fluoranthene	150		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	190		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	140		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Chrysene	170		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	150		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	150		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	190		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	150		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	27		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	110		ug/Kg	9.9	0.99	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	75%		%REC	27-125	0.99	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	68%		%REC	30-120	0.99	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	82%		%REC	33-155	0.99	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: P2-1-2.5	Lab ID: 465695-011	Collected: 07/13/22 13:30
Matrix: Soil		

465695-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	84%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Aldrin	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endrin	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
4,4'-DDD	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	5.0	0.99	293616	07/22/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	9.9	0.99	293616	07/22/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	99	0.99	293616	07/22/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	50	0.99	293616	07/22/22	07/24/22	TJW
Surrogates			Limits						
TCMX	78%		%REC	23-120	0.99	293616	07/22/22	07/24/22	TJW
Decachlorobiphenyl	97%		%REC	24-120	0.99	293616	07/22/22	07/24/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Naphthalene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Acenaphthene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Fluorene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Phenanthrene	24		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Fluoranthene	36		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN

Analysis Results for 465695

465695-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	41		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Benzo(a)anthracene	18		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Chrysene	22		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Benzo(b)fluoranthene	24		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Benzo(k)fluoranthene	20		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Benzo(a)pyrene	28		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Indeno(1,2,3-cd)pyrene	28		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Benzo(g,h,i)perylene	25		ug/Kg	10	1	293258	07/19/22	07/20/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	73%		%REC	27-125	1	293258	07/19/22	07/20/22	HQN
2-Fluorobiphenyl	67%		%REC	30-120	1	293258	07/19/22	07/20/22	HQN
Terphenyl-d14	76%		%REC	33-155	1	293258	07/19/22	07/20/22	HQN

Analysis Results for 465695

Sample ID: P2-2-1.0	Lab ID: 465695-013	Collected: 07/13/22 13:55
Matrix: Soil		

465695-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	20		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	51		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	85%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Dieldrin	15		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDD	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	12	C	ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	100	2	293639	07/23/22	07/25/22	TJW
Surrogates			Limits						
TCMX	76%		%REC	23-120	2	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	105%		%REC	24-120	2	293639	07/23/22	07/25/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Phenanthrene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Fluoranthene	120		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	160		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	130		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Chrysene	140		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	180		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	180		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	240		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	250		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	210		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Surrogates			Limits						
Nitrobenzene-d5	95%		%REC	27-125	4	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	87%		%REC	30-120	4	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	91%		%REC	33-155	4	293258	07/19/22	07/21/22	HQN

Sample ID: P2-2-4.0

Lab ID: 465695-015

Collected: 07/13/22 14:05

Matrix: Soil

465695-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	3.4		mg/Kg	1.0	1	294091	08/01/22	08/02/22	SBW
Lead	6.9		mg/Kg	1.0	1	294091	08/01/22	08/02/22	SBW

Analysis Results for 465695

Sample ID: P2-3-1.0	Lab ID: 465695-016	Collected: 07/13/22 14:45
Matrix: Soil		

465695-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	25		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	61		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	86%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	25		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
4,4'-DDD	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	24		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	99	2	293639	07/23/22	07/25/22	TJW
Surrogates				Limits					
TCMX	81%		%REC	23-120	2	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	79%		%REC	24-120	2	293639	07/23/22	07/25/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
2-Methylnaphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Naphthalene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Acenaphthylene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Acenaphthene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Fluorene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Phenanthrene	51		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Anthracene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Fluoranthene	61		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

465695-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	68		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(a)anthracene	47		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Chrysene	59		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(b)fluoranthene	63		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(k)fluoranthene	44		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(a)pyrene	64		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Indeno(1,2,3-cd)pyrene	58		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Benzo(g,h,i)perylene	59		ug/Kg	40	4	293258	07/19/22	07/21/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	76%		%REC	27-125	4	293258	07/19/22	07/21/22	HQN
2-Fluorobiphenyl	72%		%REC	30-120	4	293258	07/19/22	07/21/22	HQN
Terphenyl-d14	78%		%REC	33-155	4	293258	07/19/22	07/21/22	HQN

Analysis Results for 465695

Sample ID: P2-3-2.5	Lab ID: 465695-017	Collected: 07/13/22 14:50
Matrix: Soil		

465695-017 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates			Limits						
n-Triacontane	81%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
4,4'-DDD	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	9.9	0.99	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	99	0.99	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	50	0.99	293639	07/23/22	07/25/22	TJW
Surrogates			Limits						
TCMX	84%		%REC	23-120	0.99	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	97%		%REC	24-120	0.99	293639	07/23/22	07/25/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Naphthalene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Acenaphthene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Fluorene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Phenanthrene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Anthracene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Fluoranthene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN

Analysis Results for 465695

465695-017 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Chrysene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293479	07/21/22	07/22/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	85%		%REC	27-125	1	293479	07/21/22	07/22/22	HQN
2-Fluorobiphenyl	75%		%REC	30-120	1	293479	07/21/22	07/22/22	HQN
Terphenyl-d14	74%		%REC	33-155	1	293479	07/21/22	07/22/22	HQN

Analysis Results for 465695

Sample ID: P2-4-1.0	Lab ID: 465695-019	Collected: 07/13/22 15:15
Matrix: Soil		

465695-019 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	47		mg/Kg	10	1	293456	07/21/22	07/22/22	MES
ORO C28-C44	89		mg/Kg	20	1	293456	07/21/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	87%		%REC	70-130	1	293456	07/21/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDD	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	100	2	293639	07/23/22	07/25/22	TJW
Surrogates				Limits					
TCMX	83%		%REC	23-120	2	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	82%		%REC	24-120	2	293639	07/23/22	07/25/22	TJW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
2-Methylnaphthalene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Naphthalene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Acenaphthylene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Acenaphthene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Fluorene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Phenanthrene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Anthracene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Fluoranthene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN

Analysis Results for 465695

465695-019 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Pyrene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Benzo(a)anthracene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Chrysene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Benzo(a)pyrene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	100	10	293479	07/21/22	07/22/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	77%		%REC	27-125	10	293479	07/21/22	07/22/22	HQN
2-Fluorobiphenyl	81%		%REC	30-120	10	293479	07/21/22	07/22/22	HQN
Terphenyl-d14	74%		%REC	33-155	10	293479	07/21/22	07/22/22	HQN

Sample ID: P2-4-4.0
Lab ID: 465695-021
Collected: 07/13/22 15:30
Matrix: Soil

465695-021 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	4.0		mg/Kg	0.99	0.99	294091	08/01/22	08/02/22	SBW

C Presence confirmed, but RPD between columns exceeds 40%

ND Not Detected

Batch QC

Type: Blank	Lab ID: QC1003824	Batch: 294091
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1003824 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		mg/Kg	1.0	08/01/22	08/02/22
Lead	ND		mg/Kg	1.0	08/01/22	08/02/22

Type: Lab Control Sample	Lab ID: QC1003825	Batch: 294091
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1003825 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	99.68	100.0	mg/Kg	100%		80-120
Lead	106.7	100.0	mg/Kg	107%		80-120

Type: Matrix Spike	Lab ID: QC1003826	Batch: 294091
Matrix (Source ID): Soil (466288-005)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1003826 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	100.4	2.359	94.34	mg/Kg	104%		75-125	0.94
Lead	105.0	7.363	94.34	mg/Kg	103%		75-125	0.94

Type: Matrix Spike Duplicate	Lab ID: QC1003827	Batch: 294091
Matrix (Source ID): Soil (466288-005)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1003827 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	92.73	2.359	88.50	mg/Kg	102%		75-125	2	35	0.88
Lead	97.65	7.363	88.50	mg/Kg	102%		75-125	1	20	0.88

Type: Blank	Lab ID: QC1002014	Batch: 293456
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC1002014 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
DRO C10-C28	ND		mg/Kg	10	07/21/22	07/22/22
ORO C28-C44	ND		mg/Kg	20	07/21/22	07/22/22
Surrogates				Limits		
n-Triacontane	100%		%REC	70-130	07/21/22	07/22/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1002015	Batch: 293456
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC1002015 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	232.0	250.0	mg/Kg	93%		76-122
Surrogates						
n-Triacontane	9.623	10.00	mg/Kg	96%		70-130

Type: Matrix Spike	Lab ID: QC1002016	Batch: 293456
Matrix (Source ID): Soil (465695-005)	Method: EPA 8015M	Prep Method: EPA 3580

QC1002016 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	193.6	ND	250.0	mg/Kg	77%		62-126	1
Surrogates								
n-Triacontane	8.272		10.00	mg/Kg	83%		70-130	1

Type: Matrix Spike Duplicate	Lab ID: QC1002017	Batch: 293456
Matrix (Source ID): Soil (465695-005)	Method: EPA 8015M	Prep Method: EPA 3580

QC1002017 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	204.0	ND	250.0	mg/Kg	82%		62-126	5	35	1
Surrogates										
n-Triacontane	9.314		10.00	mg/Kg	93%		70-130			1

Batch QC

Type: Blank	Lab ID: QC1002308	Batch: 293616
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002308 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
alpha-BHC	ND		ug/Kg	5.1	07/22/22	07/24/22
beta-BHC	ND		ug/Kg	5.1	07/22/22	07/24/22
gamma-BHC	ND		ug/Kg	5.1	07/22/22	07/24/22
delta-BHC	ND		ug/Kg	5.1	07/22/22	07/24/22
Heptachlor	ND		ug/Kg	5.1	07/22/22	07/24/22
Aldrin	ND		ug/Kg	5.1	07/22/22	07/24/22
Heptachlor epoxide	ND		ug/Kg	5.1	07/22/22	07/24/22
Endosulfan I	ND		ug/Kg	5.1	07/22/22	07/24/22
Dieldrin	ND		ug/Kg	5.1	07/22/22	07/24/22
4,4'-DDE	ND		ug/Kg	5.1	07/22/22	07/24/22
Endrin	ND		ug/Kg	5.1	07/22/22	07/24/22
Endosulfan II	ND		ug/Kg	5.1	07/22/22	07/24/22
Endosulfan sulfate	ND		ug/Kg	5.1	07/22/22	07/24/22
4,4'-DDD	ND		ug/Kg	5.1	07/22/22	07/24/22
Endrin aldehyde	ND		ug/Kg	5.1	07/22/22	07/24/22
Endrin ketone	ND		ug/Kg	5.1	07/22/22	07/24/22
4,4'-DDT	ND		ug/Kg	5.1	07/22/22	07/24/22
Methoxychlor	ND		ug/Kg	10	07/22/22	07/24/22
Toxaphene	ND		ug/Kg	100	07/22/22	07/24/22
Chlordane (Technical)	ND		ug/Kg	51	07/22/22	07/24/22
Surrogates				Limits		
TCMX	35%		%REC	23-120	07/22/22	07/24/22
Decachlorobiphenyl	75%		%REC	24-120	07/22/22	07/24/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1002309	Batch: 293616
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002309 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
alpha-BHC	27.96	50.00	ug/Kg	56%		22-129
beta-BHC	36.45	50.00	ug/Kg	73%		28-125
gamma-BHC	28.78	50.00	ug/Kg	58%		22-128
delta-BHC	24.63	50.00	ug/Kg	49%		24-131
Heptachlor	28.82	50.00	ug/Kg	58%		18-124
Aldrin	28.28	50.00	ug/Kg	57%		23-120
Heptachlor epoxide	33.95	50.00	ug/Kg	68%		26-120
Endosulfan I	36.94	50.00	ug/Kg	74%		25-126
Dieldrin	34.83	50.00	ug/Kg	70%		23-124
4,4'-DDE	37.18	50.00	ug/Kg	74%		28-121
Endrin	37.99	50.00	ug/Kg	76%		25-127
Endosulfan II	42.70	50.00	ug/Kg	85%		29-121
Endosulfan sulfate	40.74	50.00	ug/Kg	81%		30-121
4,4'-DDD	41.27	50.00	ug/Kg	83%		26-120
Endrin aldehyde	42.29	50.00	ug/Kg	85%		10-120
Endrin ketone	59.06	50.00	ug/Kg	118%	#	28-125
4,4'-DDT	40.04	50.00	ug/Kg	80%		22-125
Methoxychlor	45.66	50.00	ug/Kg	91%		28-130
Surrogates						
TCMX	21.57	50.00	ug/Kg	43%		23-120
Decachlorobiphenyl	38.02	50.00	ug/Kg	76%		24-120

Batch QC

Type: Matrix Spike	Lab ID: QC1002310	Batch: 293616
Matrix (Source ID): Soil (465695-001)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002310 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
alpha-BHC	34.63	ND	50.00	ug/Kg	69%		46-120	2
beta-BHC	42.02	ND	50.00	ug/Kg	84%		41-120	2
gamma-BHC	36.24	ND	50.00	ug/Kg	72%		41-120	2
delta-BHC	42.11	ND	50.00	ug/Kg	84%		38-123	2
Heptachlor	34.75	ND	50.00	ug/Kg	70%		39-120	2
Aldrin	33.79	ND	50.00	ug/Kg	68%		34-120	2
Heptachlor epoxide	38.00	ND	50.00	ug/Kg	76%		43-120	2
Endosulfan I	40.59	ND	50.00	ug/Kg	81%		45-120	2
Dieldrin	36.52	ND	50.00	ug/Kg	73%		45-120	2
4,4'-DDE	41.01	2.912	50.00	ug/Kg	76%		34-120	2
Endrin	41.10	ND	50.00	ug/Kg	82%		40-120	2
Endosulfan II	43.48	ND	50.00	ug/Kg	87%		41-120	2
Endosulfan sulfate	46.17	ND	50.00	ug/Kg	92%		42-120	2
4,4'-DDD	39.94	ND	50.00	ug/Kg	80%		41-120	2
Endrin aldehyde	33.73	ND	50.00	ug/Kg	67%		30-120	2
Endrin ketone	60.93	7.110	50.00	ug/Kg	108%	#	45-120	2
4,4'-DDT	45.57	5.118	50.00	ug/Kg	81%		35-127	2
Methoxychlor	51.70	ND	50.00	ug/Kg	103%		42-136	2
Surrogates								
TCMX	25.50		50.00	ug/Kg	51%		23-120	2
Decachlorobiphenyl	38.86		50.00	ug/Kg	78%		24-120	2

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1002311	Batch: 293616
Matrix (Source ID): Soil (465695-001)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002311 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
alpha-BHC	37.98	ND	49.02	ug/Kg	77%		46-120	11	30	2
beta-BHC	42.42	ND	49.02	ug/Kg	87%		41-120	3	30	2
gamma-BHC	38.84	ND	49.02	ug/Kg	79%		41-120	9	30	2
delta-BHC	42.66	ND	49.02	ug/Kg	87%		38-123	3	30	2
Heptachlor	37.39	ND	49.02	ug/Kg	76%		39-120	9	30	2
Aldrin	35.96	ND	49.02	ug/Kg	73%		34-120	8	30	2
Heptachlor epoxide	39.29	ND	49.02	ug/Kg	80%		43-120	5	30	2
Endosulfan I	40.87	ND	49.02	ug/Kg	83%		45-120	3	30	2
Dieldrin	36.49	ND	49.02	ug/Kg	74%		45-120	2	30	2
4,4'-DDE	39.91	2.912	49.02	ug/Kg	75%		34-120	1	30	2
Endrin	40.93	ND	49.02	ug/Kg	83%		40-120	2	30	2
Endosulfan II	43.02	ND	49.02	ug/Kg	88%		41-120	1	30	2
Endosulfan sulfate	45.63	ND	49.02	ug/Kg	93%		42-120	1	30	2
4,4'-DDD	39.89	ND	49.02	ug/Kg	81%		41-120	2	30	2
Endrin aldehyde	34.81	ND	49.02	ug/Kg	71%		30-120	5	30	2
Endrin ketone	60.33	7.110	49.02	ug/Kg	109%	#	45-120	1	30	2
4,4'-DDT	45.27	5.118	49.02	ug/Kg	82%		35-127	1	30	2
Methoxychlor	49.85	ND	49.02	ug/Kg	102%		42-136	2	30	2
Surrogates										
TCMX	29.50		49.02	ug/Kg	60%		23-120			2
Decachlorobiphenyl	37.63		49.02	ug/Kg	77%		24-120			2

Batch QC

Type: Blank	Lab ID: QC1002408	Batch: 293639
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002408 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
alpha-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
beta-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
gamma-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
delta-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
Heptachlor	ND		ug/Kg	5.0	07/23/22	07/24/22
Aldrin	ND		ug/Kg	5.0	07/23/22	07/24/22
Heptachlor epoxide	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan I	ND		ug/Kg	5.0	07/23/22	07/24/22
Dieldrin	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDE	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan II	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan sulfate	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDD	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin aldehyde	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin ketone	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDT	ND		ug/Kg	5.0	07/23/22	07/24/22
Methoxychlor	ND		ug/Kg	10	07/23/22	07/24/22
Toxaphene	ND		ug/Kg	100	07/23/22	07/24/22
Chlordane (Technical)	ND		ug/Kg	50	07/23/22	07/24/22
Surrogates				Limits		
TCMX	83%		%REC	23-120	07/23/22	07/24/22
Decachlorobiphenyl	88%		%REC	24-120	07/23/22	07/24/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1002409	Batch: 293639
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002409 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
alpha-BHC	43.56	49.50	ug/Kg	88%		22-129
beta-BHC	43.46	49.50	ug/Kg	88%		28-125
gamma-BHC	42.95	49.50	ug/Kg	87%		22-128
delta-BHC	45.97	49.50	ug/Kg	93%		24-131
Heptachlor	46.85	49.50	ug/Kg	95%		18-124
Aldrin	40.44	49.50	ug/Kg	82%		23-120
Heptachlor epoxide	44.62	49.50	ug/Kg	90%		26-120
Endosulfan I	48.84	49.50	ug/Kg	99%		25-126
Dieldrin	45.47	49.50	ug/Kg	92%		23-124
4,4'-DDE	47.42	49.50	ug/Kg	96%		28-121
Endrin	49.73	49.50	ug/Kg	100%		25-127
Endosulfan II	49.08	49.50	ug/Kg	99%		29-121
Endosulfan sulfate	44.07	49.50	ug/Kg	89%		30-121
4,4'-DDD	52.54	49.50	ug/Kg	106%	#	26-120
Endrin aldehyde	40.22	49.50	ug/Kg	81%		10-120
Endrin ketone	45.69	49.50	ug/Kg	92%		28-125
4,4'-DDT	46.07	49.50	ug/Kg	93%		22-125
Methoxychlor	55.03	49.50	ug/Kg	111%		28-130
Surrogates						
TCMX	38.55	49.50	ug/Kg	78%		23-120
Decachlorobiphenyl	42.79	49.50	ug/Kg	86%		24-120

Batch QC

Type: Matrix Spike	Lab ID: QC1002410	Batch: 293639
Matrix (Source ID): Soil (465763-005)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002410 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
alpha-BHC	42.82	ND	50.51	ug/Kg	85%		46-120	1
beta-BHC	42.51	ND	50.51	ug/Kg	84%		41-120	1
gamma-BHC	42.59	ND	50.51	ug/Kg	84%		41-120	1
delta-BHC	46.24	ND	50.51	ug/Kg	92%		38-123	1
Heptachlor	46.73	ND	50.51	ug/Kg	93%		39-120	1
Aldrin	41.25	ND	50.51	ug/Kg	82%		34-120	1
Heptachlor epoxide	44.09	ND	50.51	ug/Kg	87%		43-120	1
Endosulfan I	47.48	ND	50.51	ug/Kg	94%		45-120	1
Dieldrin	45.31	ND	50.51	ug/Kg	90%		45-120	1
4,4'-DDE	46.77	ND	50.51	ug/Kg	93%		34-120	1
Endrin	48.88	ND	50.51	ug/Kg	97%		40-120	1
Endosulfan II	47.38	ND	50.51	ug/Kg	94%		41-120	1
Endosulfan sulfate	42.46	ND	50.51	ug/Kg	84%		42-120	1
4,4'-DDD	50.00	ND	50.51	ug/Kg	99%	#	41-120	1
Endrin aldehyde	41.44	ND	50.51	ug/Kg	82%		30-120	1
Endrin ketone	44.07	ND	50.51	ug/Kg	87%		45-120	1
4,4'-DDT	47.64	ND	50.51	ug/Kg	94%		35-127	1
Methoxychlor	50.07	ND	50.51	ug/Kg	99%		42-136	1
Surrogates								
TCMX	36.00		50.51	ug/Kg	71%		23-120	1
Decachlorobiphenyl	38.76		50.51	ug/Kg	77%		24-120	1

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1002411	Batch: 293639
Matrix (Source ID): Soil (465763-005)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002411 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
alpha-BHC	44.70	ND	50.51	ug/Kg	89%		46-120	4	30	1
beta-BHC	43.31	ND	50.51	ug/Kg	86%		41-120	2	30	1
gamma-BHC	44.22	ND	50.51	ug/Kg	88%		41-120	4	30	1
delta-BHC	49.12	ND	50.51	ug/Kg	97%		38-123	6	30	1
Heptachlor	48.41	ND	50.51	ug/Kg	96%		39-120	4	30	1
Aldrin	42.43	ND	50.51	ug/Kg	84%		34-120	3	30	1
Heptachlor epoxide	44.74	ND	50.51	ug/Kg	89%		43-120	1	30	1
Endosulfan I	48.62	ND	50.51	ug/Kg	96%		45-120	2	30	1
Dieldrin	46.15	ND	50.51	ug/Kg	91%		45-120	2	30	1
4,4'-DDE	47.99	ND	50.51	ug/Kg	95%		34-120	3	30	1
Endrin	49.56	ND	50.51	ug/Kg	98%		40-120	1	30	1
Endosulfan II	47.97	ND	50.51	ug/Kg	95%		41-120	1	30	1
Endosulfan sulfate	41.48	ND	50.51	ug/Kg	82%		42-120	2	30	1
4,4'-DDD	50.15	ND	50.51	ug/Kg	99%	#	41-120	0	30	1
Endrin aldehyde	40.48	ND	50.51	ug/Kg	80%		30-120	2	30	1
Endrin ketone	44.57	ND	50.51	ug/Kg	88%		45-120	1	30	1
4,4'-DDT	47.47	ND	50.51	ug/Kg	94%		35-127	0	30	1
Methoxychlor	49.43	ND	50.51	ug/Kg	98%		42-136	1	30	1
Surrogates										
TCMX	37.57		50.51	ug/Kg	74%		23-120			1
Decachlorobiphenyl	38.59		50.51	ug/Kg	76%		24-120			1

Batch QC

Type: Matrix Spike	Lab ID: QC1001521	Batch: 293258
Matrix (Source ID): Soil (465695-011)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1001521 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	155.1	5.126	199.0	ug/Kg	75%		25-130	1
2-Methylnaphthalene	185.6	6.730	199.0	ug/Kg	90%		32-133	1
Naphthalene	175.5	5.581	199.0	ug/Kg	85%		33-130	1
Acenaphthylene	169.2	ND	199.0	ug/Kg	85%		14-157	1
Acenaphthene	165.3	ND	199.0	ug/Kg	83%		28-134	1
Fluorene	172.1	ND	199.0	ug/Kg	87%		27-140	1
Phenanthrene	208.4	24.48	199.0	ug/Kg	92%		29-147	1
Anthracene	165.8	3.070	199.0	ug/Kg	82%		24-156	1
Fluoranthene	197.7	35.97	199.0	ug/Kg	81%		28-160	1
Pyrene	194.5	41.15	199.0	ug/Kg	77%		26-153	1
Benzo(a)anthracene	201.9	18.09	199.0	ug/Kg	92%		26-174	1
Chrysene	166.0	21.81	199.0	ug/Kg	72%		40-139	1
Benzo(b)fluoranthene	211.1	24.30	199.0	ug/Kg	94%		36-164	1
Benzo(k)fluoranthene	182.4	20.19	199.0	ug/Kg	82%		36-161	1
Benzo(a)pyrene	175.9	28.22	199.0	ug/Kg	74%		18-173	1
Indeno(1,2,3-cd)pyrene	222.8	27.66	199.0	ug/Kg	98%		26-154	1
Dibenz(a,h)anthracene	195.4	4.436	199.0	ug/Kg	96%		38-132	1
Benzo(g,h,i)perylene	176.8	25.36	199.0	ug/Kg	76%		36-130	1
Surrogates								
Nitrobenzene-d5	201.7		199.0	ug/Kg	101%		27-125	1
2-Fluorobiphenyl	176.2		199.0	ug/Kg	89%		30-120	1
Terphenyl-d14	191.1		199.0	ug/Kg	96%		33-155	1

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1001522	Batch: 293258
Matrix (Source ID): Soil (465695-011)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1001522 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	157.4	5.126	199.0	ug/Kg	77%		25-130	1	35	1
2-Methylnaphthalene	189.8	6.730	199.0	ug/Kg	92%		32-133	2	35	1
Naphthalene	178.5	5.581	199.0	ug/Kg	87%		33-130	2	35	1
Acenaphthylene	176.4	ND	199.0	ug/Kg	89%		14-157	4	35	1
Acenaphthene	171.7	ND	199.0	ug/Kg	86%		28-134	4	35	1
Fluorene	180.2	ND	199.0	ug/Kg	91%		27-140	5	35	1
Phenanthrene	209.0	24.48	199.0	ug/Kg	93%		29-147	0	35	1
Anthracene	174.9	3.070	199.0	ug/Kg	86%		24-156	5	35	1
Fluoranthene	204.8	35.97	199.0	ug/Kg	85%		28-160	4	35	1
Pyrene	201.3	41.15	199.0	ug/Kg	80%		26-153	3	35	1
Benzo(a)anthracene	197.4	18.09	199.0	ug/Kg	90%		26-174	2	35	1
Chrysene	160.4	21.81	199.0	ug/Kg	70%		40-139	3	35	1
Benzo(b)fluoranthene	215.9	24.30	199.0	ug/Kg	96%		36-164	2	35	1
Benzo(k)fluoranthene	169.4	20.19	199.0	ug/Kg	75%		36-161	7	35	1
Benzo(a)pyrene	173.1	28.22	199.0	ug/Kg	73%		18-173	2	35	1
Indeno(1,2,3-cd)pyrene	223.9	27.66	199.0	ug/Kg	99%		26-154	0	35	1
Dibenz(a,h)anthracene	202.4	4.436	199.0	ug/Kg	99%		38-132	4	35	1
Benzo(g,h,i)perylene	180.2	25.36	199.0	ug/Kg	78%		36-130	2	35	1
Surrogates										
Nitrobenzene-d5	198.6		199.0	ug/Kg	100%		27-125			1
2-Fluorobiphenyl	176.9		199.0	ug/Kg	89%		30-120			1
Terphenyl-d14	198.3		199.0	ug/Kg	100%		33-155			1

Batch QC

Type: Blank	Lab ID: QC1001523	Batch: 293258
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1001523 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	07/19/22	07/20/22
2-Methylnaphthalene	ND		ug/Kg	10	07/19/22	07/20/22
Naphthalene	ND		ug/Kg	10	07/19/22	07/20/22
Acenaphthylene	ND		ug/Kg	10	07/19/22	07/20/22
Acenaphthene	ND		ug/Kg	10	07/19/22	07/20/22
Fluorene	ND		ug/Kg	10	07/19/22	07/20/22
Phenanthrene	ND		ug/Kg	10	07/19/22	07/20/22
Anthracene	ND		ug/Kg	10	07/19/22	07/20/22
Fluoranthene	ND		ug/Kg	10	07/19/22	07/20/22
Pyrene	ND		ug/Kg	10	07/19/22	07/20/22
Benzo(a)anthracene	ND		ug/Kg	10	07/19/22	07/20/22
Chrysene	ND		ug/Kg	10	07/19/22	07/20/22
Benzo(b)fluoranthene	ND		ug/Kg	10	07/19/22	07/20/22
Benzo(k)fluoranthene	ND		ug/Kg	10	07/19/22	07/20/22
Benzo(a)pyrene	ND		ug/Kg	10	07/19/22	07/20/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	07/19/22	07/20/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	07/19/22	07/20/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	07/19/22	07/20/22
Surrogates				Limits		
Nitrobenzene-d5	112%		%REC	27-125	07/19/22	07/20/22
2-Fluorobiphenyl	92%		%REC	30-120	07/19/22	07/20/22
Terphenyl-d14	101%		%REC	33-155	07/19/22	07/20/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1001524	Batch: 293258
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1001524 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	156.7	201.0	ug/Kg	78%		28-130
2-Methylnaphthalene	183.8	201.0	ug/Kg	91%		33-130
Naphthalene	176.8	201.0	ug/Kg	88%		25-130
Acenaphthylene	171.4	201.0	ug/Kg	85%		28-130
Acenaphthene	171.5	201.0	ug/Kg	85%		32-130
Fluorene	176.1	201.0	ug/Kg	88%		35-130
Phenanthrene	180.4	201.0	ug/Kg	90%		35-132
Anthracene	172.2	201.0	ug/Kg	86%		34-136
Fluoranthene	174.7	201.0	ug/Kg	87%		34-139
Pyrene	169.2	201.0	ug/Kg	84%		35-134
Benzo(a)anthracene	188.5	201.0	ug/Kg	94%		30-132
Chrysene	158.4	201.0	ug/Kg	79%		29-130
Benzo(b)fluoranthene	202.9	201.0	ug/Kg	101%		32-137
Benzo(k)fluoranthene	173.2	201.0	ug/Kg	86%		32-130
Benzo(a)pyrene	177.6	201.0	ug/Kg	88%		10-138
Indeno(1,2,3-cd)pyrene	204.9	201.0	ug/Kg	102%		34-132
Dibenz(a,h)anthracene	200.3	201.0	ug/Kg	100%		32-130
Benzo(g,h,i)perylene	164.7	201.0	ug/Kg	82%		27-130
Surrogates						
Nitrobenzene-d5	203.6	201.0	ug/Kg	101%		27-125
2-Fluorobiphenyl	176.2	201.0	ug/Kg	88%		30-120
Terphenyl-d14	192.9	201.0	ug/Kg	96%		33-155

Batch QC

Type: Blank	Lab ID: QC1002114	Batch: 293479
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1002114 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	07/21/22	07/22/22
2-Methylnaphthalene	ND		ug/Kg	10	07/21/22	07/22/22
Naphthalene	ND		ug/Kg	10	07/21/22	07/22/22
Acenaphthylene	ND		ug/Kg	10	07/21/22	07/22/22
Acenaphthene	ND		ug/Kg	10	07/21/22	07/22/22
Fluorene	ND		ug/Kg	10	07/21/22	07/22/22
Phenanthrene	ND		ug/Kg	10	07/21/22	07/22/22
Anthracene	ND		ug/Kg	10	07/21/22	07/22/22
Fluoranthene	ND		ug/Kg	10	07/21/22	07/22/22
Pyrene	ND		ug/Kg	10	07/21/22	07/22/22
Benzo(a)anthracene	ND		ug/Kg	10	07/21/22	07/22/22
Chrysene	ND		ug/Kg	10	07/21/22	07/22/22
Benzo(b)fluoranthene	ND		ug/Kg	10	07/21/22	07/22/22
Benzo(k)fluoranthene	ND		ug/Kg	10	07/21/22	07/22/22
Benzo(a)pyrene	ND		ug/Kg	10	07/21/22	07/22/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	07/21/22	07/22/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	07/21/22	07/22/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	07/21/22	07/22/22
Surrogates				Limits		
Nitrobenzene-d5	70%		%REC	27-125	07/21/22	07/22/22
2-Fluorobiphenyl	78%		%REC	30-120	07/21/22	07/22/22
Terphenyl-d14	86%		%REC	33-155	07/21/22	07/22/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1002115	Batch: 293479
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1002115 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	137.2	199.0	ug/Kg	69%		28-130
2-Methylnaphthalene	146.6	199.0	ug/Kg	74%		33-130
Naphthalene	155.1	199.0	ug/Kg	78%		25-130
Acenaphthylene	135.3	199.0	ug/Kg	68%		28-130
Acenaphthene	147.2	199.0	ug/Kg	74%		32-130
Fluorene	146.9	199.0	ug/Kg	74%		35-130
Phenanthrene	151.0	199.0	ug/Kg	76%		35-132
Anthracene	148.9	199.0	ug/Kg	75%		34-136
Fluoranthene	137.9	199.0	ug/Kg	69%		34-139
Pyrene	132.2	199.0	ug/Kg	66%		35-134
Benzo(a)anthracene	124.9	199.0	ug/Kg	63%		30-132
Chrysene	151.0	199.0	ug/Kg	76%		29-130
Benzo(b)fluoranthene	141.7	199.0	ug/Kg	71%		32-137
Benzo(k)fluoranthene	175.9	199.0	ug/Kg	88%		32-130
Benzo(a)pyrene	130.0	199.0	ug/Kg	65%		10-138
Indeno(1,2,3-cd)pyrene	135.5	199.0	ug/Kg	68%		34-132
Dibenz(a,h)anthracene	159.9	199.0	ug/Kg	80%		32-130
Benzo(g,h,i)perylene	160.4	199.0	ug/Kg	81%		27-130
Surrogates						
Nitrobenzene-d5	146.1	199.0	ug/Kg	73%		27-125
2-Fluorobiphenyl	150.1	199.0	ug/Kg	75%		30-120
Terphenyl-d14	141.1	199.0	ug/Kg	71%		33-155

Batch QC

Type: Matrix Spike	Lab ID: QC1002116	Batch: 293479
Matrix (Source ID): Soil (465695-019)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1002116 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	209.5	26.29	202.0	ug/Kg	91%		25-130	10
2-Methylnaphthalene	234.2	ND	202.0	ug/Kg	116%		32-133	10
Naphthalene	229.1	ND	202.0	ug/Kg	113%		33-130	10
Acenaphthylene	213.0	ND	202.0	ug/Kg	105%		14-157	10
Acenaphthene	185.0	ND	202.0	ug/Kg	92%		28-134	10
Fluorene	171.1	ND	202.0	ug/Kg	85%		27-140	10
Phenanthrene	239.2	34.74	202.0	ug/Kg	101%		29-147	10
Anthracene	207.6	29.38	202.0	ug/Kg	88%		24-156	10
Fluoranthene	265.1	60.15	202.0	ug/Kg	101%		28-160	10
Pyrene	273.8	71.94	202.0	ug/Kg	100%		26-153	10
Benzo(a)anthracene	273.3	52.34	202.0	ug/Kg	109%		26-174	10
Chrysene	250.2	64.37	202.0	ug/Kg	92%		40-139	10
Benzo(b)fluoranthene	303.0	56.78	202.0	ug/Kg	122%	b	36-164	10
Benzo(k)fluoranthene	259.0	63.67	202.0	ug/Kg	97%		36-161	10
Benzo(a)pyrene	274.6	66.55	202.0	ug/Kg	103%		18-173	10
Indeno(1,2,3-cd)pyrene	322.4	79.43	202.0	ug/Kg	120%	b	26-154	10
Dibenz(a,h)anthracene	218.7	ND	202.0	ug/Kg	108%	b	38-132	10
Benzo(g,h,i)perylene	277.3	79.17	202.0	ug/Kg	98%		36-130	10
Surrogates								
Nitrobenzene-d5	199.7		202.0	ug/Kg	99%		27-125	10
2-Fluorobiphenyl	188.4		202.0	ug/Kg	93%		30-120	10
Terphenyl-d14	161.4		202.0	ug/Kg	80%		33-155	10

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1002117	Batch: 293479
Matrix (Source ID): Soil (465695-019)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1002117 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	230.0	26.29	201.0	ug/Kg	101%		25-130	10	35	10
2-Methylnaphthalene	272.2	ND	201.0	ug/Kg	135%	*	32-133	16	35	10
Naphthalene	263.1	ND	201.0	ug/Kg	131%	*	33-130	14	35	10
Acenaphthylene	222.4	ND	201.0	ug/Kg	111%		14-157	5	35	10
Acenaphthene	204.1	ND	201.0	ug/Kg	102%		28-134	10	35	10
Fluorene	196.9	ND	201.0	ug/Kg	98%		27-140	15	35	10
Phenanthrene	261.6	34.74	201.0	ug/Kg	113%		29-147	9	35	10
Anthracene	246.1	29.38	201.0	ug/Kg	108%		24-156	17	35	10
Fluoranthene	268.1	60.15	201.0	ug/Kg	103%		28-160	2	35	10
Pyrene	274.5	71.94	201.0	ug/Kg	101%		26-153	1	35	10
Benzo(a)anthracene	287.4	52.34	201.0	ug/Kg	117%		26-174	5	35	10
Chrysene	260.5	64.37	201.0	ug/Kg	98%		40-139	4	35	10
Benzo(b)fluoranthene	331.1	56.78	201.0	ug/Kg	136%	b	36-164	9	35	10
Benzo(k)fluoranthene	254.9	63.67	201.0	ug/Kg	95%		36-161	1	35	10
Benzo(a)pyrene	268.3	66.55	201.0	ug/Kg	100%		18-173	2	35	10
Indeno(1,2,3-cd)pyrene	330.6	79.43	201.0	ug/Kg	125%	b	26-154	3	35	10
Dibenz(a,h)anthracene	248.3	ND	201.0	ug/Kg	124%	b	38-132	13	35	10
Benzo(g,h,i)perylene	281.7	79.17	201.0	ug/Kg	101%		36-130	2	35	10
Surrogates										
Nitrobenzene-d5	214.7		201.0	ug/Kg	107%		27-125			10
2-Fluorobiphenyl	205.8		201.0	ug/Kg	102%		30-120			10
Terphenyl-d14	186.7		201.0	ug/Kg	93%		33-155			10

CCV drift outside limits; average CCV drift within limits per method requirements

* Value is outside QC limits

ND Not Detected

b See narrative

Laboratory Job Number 465695

Subcontracted Products

McCampbell Analytical, Inc.



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2207882

Report Created for: Enthalpy Analytical

931 West Barkley Avenue
Orange, CA 92868

Project Contact: Sophia Baughman

Project P.O.: 030864

Project: EO-465695

Project Received: 07/15/2022

Analytical Report reviewed & approved for release on 07/21/2022 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: Enthalpy Analytical

WorkOrder: 2207882

Project: EO-465695

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
PI-1-1.0	2207882-001A	Soil	07/13/2022 10:10	ICP-MS5 158SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	0.91	0.50	1	07/19/2022 11:17
Arsenic	9.3	0.50	1	07/19/2022 11:17
Barium	180	5.0	1	07/19/2022 11:17
Beryllium	0.56	0.50	1	07/19/2022 11:17
Cadmium	ND	0.50	1	07/19/2022 11:17
Chromium	62	0.50	1	07/19/2022 11:17
Cobalt	15	0.50	1	07/19/2022 11:17
Copper	37	0.50	1	07/19/2022 11:17
Lead	34	0.50	1	07/19/2022 11:17
Mercury	0.30	0.050	1	07/19/2022 11:17
Molybdenum	0.78	0.50	1	07/19/2022 11:17
Nickel	57	0.50	1	07/19/2022 11:17
Selenium	1.2	0.50	1	07/19/2022 11:17
Silver	ND	0.50	1	07/19/2022 11:17
Thallium	ND	0.50	1	07/19/2022 11:17
Vanadium	72	0.50	1	07/19/2022 11:17
Zinc	100	5.0	1	07/19/2022 11:17

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	110	70-130	07/19/2022 11:17

Analyst(s): WV



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
PI-1-2.5	2207882-002A	Soil	07/13/2022 10:15	ICP-MS5 159SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	07/19/2022 11:20
Arsenic	8.4	0.50	1	07/19/2022 11:20
Barium	200	5.0	1	07/19/2022 11:20
Beryllium	0.65	0.50	1	07/19/2022 11:20
Cadmium	ND	0.50	1	07/19/2022 11:20
Chromium	69	0.50	1	07/19/2022 11:20
Cobalt	17	0.50	1	07/19/2022 11:20
Copper	33	0.50	1	07/19/2022 11:20
Lead	9.0	0.50	1	07/19/2022 11:20
Mercury	ND	0.050	1	07/19/2022 11:20
Molybdenum	0.90	0.50	1	07/19/2022 11:20
Nickel	67	0.50	1	07/19/2022 11:20
Selenium	1.3	0.50	1	07/19/2022 11:20
Silver	ND	0.50	1	07/19/2022 11:20
Thallium	ND	0.50	1	07/19/2022 11:20
Vanadium	74	0.50	1	07/19/2022 11:20
Zinc	72	5.0	1	07/19/2022 11:20

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	107	70-130	07/19/2022 11:20

Analyst(s): WV



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
PI-1-4.0	2207882-003A	Soil	07/13/2022 10:20	ICP-MS5 160SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	07/19/2022 11:23
Arsenic	6.1	0.50	1	07/19/2022 11:23
Barium	180	5.0	1	07/19/2022 11:23
Beryllium	0.63	0.50	1	07/19/2022 11:23
Cadmium	ND	0.50	1	07/19/2022 11:23
Chromium	70	0.50	1	07/19/2022 11:23
Cobalt	12	0.50	1	07/19/2022 11:23
Copper	29	0.50	1	07/19/2022 11:23
Lead	6.8	0.50	1	07/19/2022 11:23
Mercury	ND	0.050	1	07/19/2022 11:23
Molybdenum	ND	0.50	1	07/19/2022 11:23
Nickel	58	0.50	1	07/19/2022 11:23
Selenium	1.2	0.50	1	07/19/2022 11:23
Silver	ND	0.50	1	07/19/2022 11:23
Thallium	ND	0.50	1	07/19/2022 11:23
Vanadium	71	0.50	1	07/19/2022 11:23
Zinc	59	5.0	1	07/19/2022 11:23

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	107	70-130	07/19/2022 11:23

Analyst(s): WV



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P1-2-2.5	2207882-004A	Soil	07/13/2022 10:45	ICP-MS5 161SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.3	0.50	1	07/19/2022 11:27
Arsenic	12	0.50	1	07/19/2022 11:27
Barium	300	5.0	1	07/19/2022 11:27
Beryllium	0.73	0.50	1	07/19/2022 11:27
Cadmium	ND	0.50	1	07/19/2022 11:27
Chromium	37	0.50	1	07/19/2022 11:27
Cobalt	16	0.50	1	07/19/2022 11:27
Copper	28	0.50	1	07/19/2022 11:27
Lead	13	0.50	1	07/19/2022 11:27
Mercury	0.079	0.050	1	07/19/2022 11:27
Molybdenum	1.3	0.50	1	07/19/2022 11:27
Nickel	53	0.50	1	07/19/2022 11:27
Selenium	1.3	0.50	1	07/19/2022 11:27
Silver	ND	0.50	1	07/19/2022 11:27
Thallium	ND	0.50	1	07/19/2022 11:27
Vanadium	40	0.50	1	07/19/2022 11:27
Zinc	66	5.0	1	07/19/2022 11:27

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	122	70-130	07/19/2022 11:27

Analyst(s): WV



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P1-3-1.0	2207882-005A	Soil	07/13/2022 11:15	ICP-MS5 162SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	2.7	0.50	1	07/19/2022 11:30
Arsenic	83	0.50	1	07/19/2022 11:30
Barium	190	5.0	1	07/19/2022 11:30
Beryllium	0.50	0.50	1	07/19/2022 11:30
Cadmium	ND	0.50	1	07/19/2022 11:30
Chromium	33	0.50	1	07/19/2022 11:30
Cobalt	19	0.50	1	07/19/2022 11:30
Copper	32	0.50	1	07/19/2022 11:30
Lead	34	0.50	1	07/19/2022 11:30
Mercury	0.23	0.050	1	07/19/2022 11:30
Molybdenum	1.0	0.50	1	07/19/2022 11:30
Nickel	48	0.50	1	07/19/2022 11:30
Selenium	1.1	0.50	1	07/19/2022 11:30
Silver	ND	0.50	1	07/19/2022 11:30
Thallium	ND	0.50	1	07/19/2022 11:30
Vanadium	42	0.50	1	07/19/2022 11:30
Zinc	74	5.0	1	07/19/2022 11:30

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	112	70-130	07/19/2022 11:30

Analyst(s): WV



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P2-1-2.5	2207882-006A	Soil	07/13/2022 13:30	ICP-MS5 165SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.4	0.50	1	07/19/2022 11:41
Arsenic	26	0.50	1	07/19/2022 11:41
Barium	150	5.0	1	07/19/2022 11:41
Beryllium	ND	0.50	1	07/19/2022 11:41
Cadmium	ND	0.50	1	07/19/2022 11:41
Chromium	46	0.50	1	07/19/2022 11:41
Cobalt	12	0.50	1	07/19/2022 11:41
Copper	29	0.50	1	07/19/2022 11:41
Lead	63	0.50	1	07/19/2022 11:41
Mercury	0.65	0.050	1	07/19/2022 11:41
Molybdenum	ND	0.50	1	07/19/2022 11:41
Nickel	37	0.50	1	07/19/2022 11:41
Selenium	0.93	0.50	1	07/19/2022 11:41
Silver	ND	0.50	1	07/19/2022 11:41
Thallium	ND	0.50	1	07/19/2022 11:41
Vanadium	55	0.50	1	07/19/2022 11:41
Zinc	180	5.0	1	07/19/2022 11:41

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	107	70-130	07/19/2022 11:41

Analyst(s): AL

(Cont.)



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P2-2-1.0	2207882-007A	Soil	07/13/2022 13:55	ICP-MS5 166SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.8	0.50	1	07/19/2022 11:44
Arsenic	37	0.50	1	07/19/2022 11:44
Barium	170	5.0	1	07/19/2022 11:44
Beryllium	ND	0.50	1	07/19/2022 11:44
Cadmium	ND	0.50	1	07/19/2022 11:44
Chromium	34	0.50	1	07/19/2022 11:44
Cobalt	12	0.50	1	07/19/2022 11:44
Copper	42	0.50	1	07/19/2022 11:44
Lead	200	0.50	1	07/19/2022 11:44
Mercury	0.43	0.050	1	07/19/2022 11:44
Molybdenum	ND	0.50	1	07/19/2022 11:44
Nickel	38	0.50	1	07/19/2022 11:44
Selenium	1.6	0.50	1	07/19/2022 11:44
Silver	ND	0.50	1	07/19/2022 11:44
Thallium	ND	0.50	1	07/19/2022 11:44
Vanadium	73	0.50	1	07/19/2022 11:44
Zinc	150	5.0	1	07/19/2022 11:44

Surrogates	REC (%)	Limits	
Terbium	104	70-130	07/19/2022 11:44

Analyst(s): AL

(Cont.)



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P2-3-1.0	2207882-008A	Soil	07/13/2022 14:45	ICP-MS5 167SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.5	0.50	1	07/19/2022 11:48
Arsenic	32	0.50	1	07/19/2022 11:48
Barium	180	5.0	1	07/19/2022 11:48
Beryllium	ND	0.50	1	07/19/2022 11:48
Cadmium	ND	0.50	1	07/19/2022 11:48
Chromium	59	0.50	1	07/19/2022 11:48
Cobalt	14	0.50	1	07/19/2022 11:48
Copper	81	0.50	1	07/19/2022 11:48
Lead	140	0.50	1	07/19/2022 11:48
Mercury	0.48	0.050	1	07/19/2022 11:48
Molybdenum	0.72	0.50	1	07/19/2022 11:48
Nickel	61	0.50	1	07/19/2022 11:48
Selenium	1.1	0.50	1	07/19/2022 11:48
Silver	ND	0.50	1	07/19/2022 11:48
Thallium	ND	0.50	1	07/19/2022 11:48
Vanadium	53	0.50	1	07/19/2022 11:48
Zinc	190	5.0	1	07/19/2022 11:48

Surrogates	REC (%)	Limits	
Terbium	109	70-130	07/19/2022 11:48

Analyst(s): AL

(Cont.)



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P2-3-2.5	2207882-009A	Soil	07/13/2022 14:50	ICP-MS5 168SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	07/19/2022 11:51
Arsenic	6.7	0.50	1	07/19/2022 11:51
Barium	190	5.0	1	07/19/2022 11:51
Beryllium	0.73	0.50	1	07/19/2022 11:51
Cadmium	ND	0.50	1	07/19/2022 11:51
Chromium	73	0.50	1	07/19/2022 11:51
Cobalt	13	0.50	1	07/19/2022 11:51
Copper	32	0.50	1	07/19/2022 11:51
Lead	7.6	0.50	1	07/19/2022 11:51
Mercury	ND	0.050	1	07/19/2022 11:51
Molybdenum	ND	0.50	1	07/19/2022 11:51
Nickel	55	0.50	1	07/19/2022 11:51
Selenium	1.2	0.50	1	07/19/2022 11:51
Silver	ND	0.50	1	07/19/2022 11:51
Thallium	ND	0.50	1	07/19/2022 11:51
Vanadium	71	0.50	1	07/19/2022 11:51
Zinc	61	5.0	1	07/19/2022 11:51

Surrogates	REC (%)	Limits	
Terbium	109	70-130	07/19/2022 11:51

Analyst(s): AL

(Cont.)



Analytical Report

Client: Enthalpy Analytical
Date Received: 07/15/2022 14:05
Date Prepared: 07/18/2022
Project: EO-465695

WorkOrder: 2207882
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
P2-4-1.0	2207882-010A	Soil	07/13/2022 15:15	ICP-MS5 169SMPL.d	249695

Analytes	Result	RL	DF	Date Analyzed
Antimony	3.6	0.50	1	07/19/2022 11:55
Arsenic	220	0.50	1	07/19/2022 11:55
Barium	280	5.0	1	07/19/2022 11:55
Beryllium	0.57	0.50	1	07/19/2022 11:55
Cadmium	ND	0.50	1	07/19/2022 11:55
Chromium	46	0.50	1	07/19/2022 11:55
Cobalt	9.8	0.50	1	07/19/2022 11:55
Copper	60	0.50	1	07/19/2022 11:55
Lead	56	0.50	1	07/19/2022 11:55
Mercury	2.1	0.050	1	07/19/2022 11:55
Molybdenum	ND	0.50	1	07/19/2022 11:55
Nickel	83	0.50	1	07/19/2022 11:55
Selenium	0.91	0.50	1	07/19/2022 11:55
Silver	ND	0.50	1	07/19/2022 11:55
Thallium	ND	0.50	1	07/19/2022 11:55
Vanadium	34	0.50	1	07/19/2022 11:55
Zinc	62	5.0	1	07/19/2022 11:55

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	105	70-130	07/19/2022 11:55

Analyst(s): AL



Quality Control Report

Client: Enthalpy Analytical
Date Prepared: 07/18/2022
Date Analyzed: 07/18/2022
Instrument: ICP-MS4
Matrix: Soil
Project: EO-465695

WorkOrder: 2207882
BatchID: 249695
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-249695

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.16	0.50	-	-	-
Arsenic	ND	0.14	0.50	-	-	-
Barium	ND	0.68	5.0	-	-	-
Beryllium	ND	0.083	0.50	-	-	-
Cadmium	ND	0.094	0.50	-	-	-
Chromium	ND	0.13	0.50	-	-	-
Cobalt	ND	0.069	0.50	-	-	-
Copper	ND	0.23	0.50	-	-	-
Lead	ND	0.069	0.50	-	-	-
Mercury	ND	0.038	0.050	-	-	-
Molybdenum	ND	0.14	0.50	-	-	-
Nickel	ND	0.081	0.50	-	-	-
Selenium	ND	0.32	0.50	-	-	-
Silver	ND	0.11	0.50	-	-	-
Thallium	ND	0.072	0.50	-	-	-
Vanadium	ND	0.15	0.50	-	-	-
Zinc	ND	3.2	5.0	-	-	-
Surrogate Recovery						
Terbium	520			500	104	70-130



Quality Control Report

Client: Enthalpy Analytical
Date Prepared: 07/18/2022
Date Analyzed: 07/18/2022
Instrument: ICP-MS4
Matrix: Soil
Project: EO-465695

WorkOrder: 2207882
BatchID: 249695
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-249695

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	50	49	50	99	99	75-125	0.520	20
Arsenic	49	48	50	97	97	75-125	0.545	20
Barium	490	490	500	98	98	75-125	0.152	20
Beryllium	50	49	50	100	99	75-125	1.35	20
Cadmium	48	49	50	95	98	75-125	3.21	20
Chromium	51	50	50	101	100	75-125	1.31	20
Cobalt	49	49	50	99	99	75-125	0.00203	20
Copper	49	49	50	98	99	75-125	0.526	20
Lead	47	48	50	94	96	75-125	1.67	20
Mercury	1.3	1.2	1.25	100	98	75-125	2.75	20
Molybdenum	49	49	50	98	99	75-125	0.386	20
Nickel	49	49	50	98	98	75-125	0.265	20
Selenium	48	48	50	97	97	75-125	0.211	20
Silver	50	49	50	99	99	75-125	0.513	20
Thallium	47	50	50	94	99	75-125	5.30	20
Vanadium	50	49	50	100	98	75-125	1.98	20
Zinc	500	490	500	99	99	75-125	0.157	20
Surrogate Recovery								
Terbium	520	510	500	103	102	70-130	1.74	20



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax CLIP EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2207882 **ClientCode: ENO** **QuoteID: 222322**
 EQuIS Dry-Weight Email HardCopy ThirdParty J-flag
 Detection Summary Excel [A1_w/QC_noMDL (Hist)]

Report to:

Sophia Baughman
Enthalpy Analytical
931 West Barkley Avenue
Orange, CA 92868
(714) 264-8209 FAX:

Email: sophia.baughman@enthalpy.com
cc/3rd Party: incomingreports@enthalpy.com;
PO: 030864
Project: EO-465695

Bill to:

Accounts Payable/Enthalpy SoCal
Montrose Environmental Group
PO Box 842165
Boston, MA 02284-2165
003EL_ap@montrose-env.com

Requested TAT: 5 days;

Date Received: 07/15/2022
Date Logged: 07/15/2022

Lab ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
2207882-001	PI-1-1.0	Soil	7/13/2022 10:10	<input type="checkbox"/>	A	A											
2207882-002	PI-1-2.5	Soil	7/13/2022 10:15	<input type="checkbox"/>	A	A											
2207882-003	PI-1-4.0	Soil	7/13/2022 10:20	<input type="checkbox"/>	A	A											
2207882-004	P1-2-2.5	Soil	7/13/2022 10:45	<input type="checkbox"/>	A	A											
2207882-005	P1-3-1.0	Soil	7/13/2022 11:15	<input type="checkbox"/>	A	A											
2207882-006	P2-1-2.5	Soil	7/13/2022 13:30	<input type="checkbox"/>	A	A											
2207882-007	P2-2-1.0	Soil	7/13/2022 13:55	<input type="checkbox"/>	A	A											
2207882-008	P2-3-1.0	Soil	7/13/2022 14:45	<input type="checkbox"/>	A	A											
2207882-009	P2-3-2.5	Soil	7/13/2022 14:50	<input type="checkbox"/>	A	A											
2207882-010	P2-4-1.0	Soil	7/13/2022 15:15	<input type="checkbox"/>	A	A											

Test Legend:

1	CAM17MS_TTLC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Angela Rydelius

Prepared by: Cassandra Gallegos

Comments:

NOTE: Soil samples are discarded 60 days after receipt unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: ENTHALPY ANALYTICAL

Project: EO-465695

Work Order: 2207882

Client Contact: Sophia Baughman

QC Level: LEVEL 2

Contact's Email: sophia.baughman@enthalpy.com

Comments:

Date Logged: 7/15/2022

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	PI-1-1.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 10:10	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
002A	PI-1-2.5	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 10:15	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
003A	PI-1-4.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 10:20	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
004A	P1-2-2.5	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 10:45	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
005A	P1-3-1.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 11:15	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
006A	P2-1-2.5	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 13:30	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
007A	P2-2-1.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 13:55	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
008A	P2-3-1.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 14:45	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
009A	P2-3-2.5	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 14:50	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>
010A	P2-4-1.0	Soil	SW6020 (CAM 17)	1	2OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/13/2022 15:15	5 days	7/22/2022		<input type="checkbox"/>	<input type="checkbox"/>

NOTES: * STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

U** = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.

Subcontract Laboratory:

McCampbell Analytical, Inc.
 1534 Willow Pass Rd.
 Pittsburg, CA 94565
 ATTN: Angela Rydelius
 PO #: Required, to be sent via email

Enthalpy Order: EO-465695

PM: Sophia Baughman
 Email: sophia.baughman@enthalpy.com
 CC: incomingreports@enthalpy.com
 Phone: (714) 771-6900

Results Due: Standard TAT


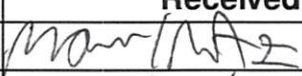
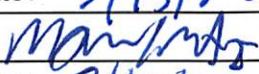
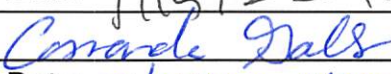
Report Level: II

Report To: RL

EDDs: Standard Excel EDD

Notes:

Sample ID	Collected	Lab ID	# Cont.	Matrix	Analysis Requested	Comment
PI-1-1.0	13-JUL-2022 10:10	465695-001	1	Soil	Metals by ICPMS	T22
PI-1-2.5	13-JUL-2022 10:15	465695-002	1	Soil	Metals by ICPMS	T22
PI-1-4.0	13-JUL-2022 10:20	465695-003	1	Soil	Metals by ICPMS	T22
P1-2-2.5	13-JUL-2022 10:45	465695-005	1	Soil	Metals by ICPMS	T22
P1-3-1.0	13-JUL-2022 11:15	465695-007	1	Soil	Metals by ICPMS	T22
P2-1-2.5	13-JUL-2022 13:30	465695-011	1	Soil	Metals by ICPMS	T22
P2-2-1.0	13-JUL-2022 13:55	465695-013	1	Soil	Metals by ICPMS	T22
P2-3-1.0	13-JUL-2022 14:45	465695-016	1	Soil	Metals by ICPMS	T22
P2-3-2.5	13-JUL-2022 14:50	465695-017	1	Soil	Metals by ICPMS	T22
P2-4-1.0	13-JUL-2022 15:15	465695-019	1	Soil	Metals by ICPMS	T22

Notes: 2.5" wet	Relinquished By:	Received By:
	 Date: 7/15/22 11:35	 Date: 7/15/22 11:35
	 Date: 7/15/22 1405	 Date: 7/15/22 1405
	Date:	Date:



Sample Receipt Checklist

Client Name: **Enthalpy Analytical**
 Project: **EO-465695**

Date and Time Received: **7/15/2022 14:05**
 Date Logged: **7/15/2022**
 Received by: **Cassandra Gallegos**
 Logged by: **Cassandra Gallegos**

WorkOrder No: **2207882** Matrix: Soil
 Carrier: Antonio Mason (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
COC agrees with Quote?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 2.5°C		NA <input type="checkbox"/>
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

 Comments:



ENTHALPY
ANALYTICAL

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

enthalpy.com

Lab Job Number: 465763
Report Level: II
Report Date: 07/27/2022

Analytical Report *prepared for:*

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Project: 6272 - Berkeley Santa Fe Row

Authorized for release by:

Sophia Baughman, Project Manager
sophia.baughman@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

Jennifer Duffield GSI Environmental, Inc. 155 Grand Ave Suite 704 Oakland, CA 94612	Lab Job #: 465763 Project No: 6272 Location: Berkeley Santa Fe Row Date Received: 07/14/22
---	---

Sample ID	Lab ID	Collected	Matrix
P3-1-1.0	465763-001	07/14/22 08:10	Soil
P3-1-2.5	465763-002	07/14/22 08:25	Soil
P3-1-4.0	465763-003	07/14/22 08:32	Soil
P3-2-1.0	465763-004	07/14/22 08:42	Soil
P3-2-2.5	465763-005	07/14/22 09:00	Soil
P3-2-4.0	465763-006	07/14/22 09:05	Soil
P3-3-1.0	465763-007	07/14/22 09:15	Soil
P3-3-2.5	465763-008	07/14/22 09:20	Soil
P3-3-4.0	465763-009	07/14/22 09:30	Soil
P3-4-1.0	465763-010	07/14/22 09:55	Soil
P3-4-2.5	465763-011	07/14/22 10:10	Soil
P3-4-4.0	465763-012	07/14/22 10:25	Soil
P4-1-1.0	465763-013	07/14/22 11:05	Soil
P4-1-2.5	465763-014	07/14/22 11:16	Soil
P4-1-4.0	465763-015	07/14/22 11:25	Soil
P4-2-1.0	465763-016	07/14/22 11:35	Soil
P4-2-2.5	465763-017	07/14/22 11:40	Soil
P4-2-4.0	465763-018	07/14/22 11:45	Soil
P4-3-1.0	465763-019	07/14/22 12:45	Soil
P4-3-2.5	465763-020	07/14/22 13:00	Soil
P4-3-4.0	465763-021	07/14/22 13:11	Soil
P4-4-1.0	465763-022	07/14/22 13:25	Soil
P4-4-2.5	465763-023	07/14/22 13:35	Soil
P4-4-4.0	465763-024	07/14/22 13:40	Soil

Case Narrative

GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612
Jennifer Duffield

Lab Job Number: 465763
Project No: 6272
Location: Berkeley Santa Fe Row
Date Received: 07/14/22

This data package contains sample and QC results for twelve soil samples, requested for the above referenced project on 07/14/22. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

- A number of samples were diluted due to the dark color of the sample extracts.
- 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.

Pesticides (EPA 8081A):

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

Metals (EPA 6010B and EPA 7471A):

- High response was observed for beryllium in the CCV analyzed 07/19/22 16:49; affected data was qualified with "b".
- Low recovery was observed for mercury in the MS of P3-2-2.5 (lab # 465763-005); the associated RPD was within limits.
- Low recoveries were observed for copper and antimony in the MS/MSD for batch 293123; the parent sample was not a project sample, and the LCS was within limits. High recoveries were observed for barium and copper in the MS for batch 293123; the LCS was within limits. High RPD was observed for copper in the MS/MSD for batch 293123.
- Low recoveries were observed for antimony in the MS/MSD of P3-2-2.5 (lab # 465763-005); the LCS was within limits, and the associated RPD was within limits. High recovery was observed for barium in the MS of P3-2-2.5 (lab # 465763-005); the LCS was within limits, and the associated RPD was within limits.
- Low recoveries were observed for antimony in the MS/MSD of P3-3-2.5 (lab # 465763-008); the LCS was within limits, and the associated RPD was within limits. High recoveries were observed for barium, nickel, and zinc in the MSD of P3-3-2.5 (lab # 465763-008); the LCS was within limits. High RPD was observed for barium and nickel in the MS/MSD of P3-3-2.5 (lab # 465763-008).
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley
 2323 5th Street, Berkeley, CA 94710
 Phone 510-486-0900

Chain of Custody Record
 Lab No: 465763
 Page: 1 of 3

Turn Around Time (rush by advanced notice only)
 Standard: X
 5 Day:
 1 Day:
 3 Day:
 Custom TAT:
 Sample Receipt Temp: (lab use only)

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION			PROJECT INFORMATION			Analysis Request			Test Instructions / Comments		
Company:	Name:	Report To:	Matrix:	Container No. / Size	Pres.	Sample ID	Sampling Date	Sampling Time	Matrix	Company / Title	Date / Time
GSI Environmental	Berkeley Santa Fe Row	Jennifer Duffield, Tiffany Kitzke	SO	8 oz. Jar	-	P3-1-1.0	7/14/22	0810	SO	GSI / Senior Scientist	7/14/22 1545
						P3-1-2.5		0825			
						P3-1-4.0		0832			
						P3-2-1.0		0842			
						P3-2-2.5		0900			
						P3-2-4.0		0905			
						P3-3-1.0		0915			
						P3-3-2.5		0920			
						P3-3-4.0		0930			
						P3-4-1.0		0955			
Signature: <i>[Signature]</i>			Print Name: Tiffany Kitzke			Company / Title: GSI / Senior Scientist			Date / Time: 7/14/22 1545		
Relinquished By: <i>[Signature]</i>			Print Name: Miguel Gomez			Company / Title: EA			Date / Time: 7/14/22 1545		
Received By: <i>[Signature]</i>			Print Name: <i>[Signature]</i>			Company / Title: EA			Date / Time: 7/14/22 1711		
Relinquished By: <i>[Signature]</i>			Print Name: <i>[Signature]</i>			Company / Title: EA			Date / Time: 7/15/22 0830		
Received By: <i>[Signature]</i>			Print Name: <i>[Signature]</i>			Company / Title: EA			Date / Time: <i>[Signature]</i>		

If metals are ready early, please send draft results.

*The 22 metals by (601017471)
 OCS by SDPA
 TPTD & TPTMS by JMS
 PAKS & 8070C GIM
 HOLD*

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley
 2323 5th Street, Berkeley, CA 94710
 Phone 510-486-0900

Chain of Custody Record
 Lab No: 465763
 Page: 2 of 3

Turn Around Time (rush by advanced notice only)
 Standard: X
 5 Day:
 1 Day:
 3 Day:
 Custom TAT:
 Sample Receipt Temp:
 (lab use only)

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments			
Company:	Name:	Report To:	Number:	Sample ID	Sampling Date	Sampling Time	Matrix	Container No./Size	Pres.	Analysis Request	Test Instructions / Comments	Analysis Request	Test Instructions / Comments		
GSI Environmental	Berkeley Santa Fe Row	Jennifer Duffield, Tiffany Klitzke	6272-002	P3-4-2.5	7/14/22	1010	SD	8 oz. Jar	-	Hold to TTHMs by 8/15 CDS by 8/8/1 TTHMs by 8/15 PTHs by 8/15 HOLD					
		Jennifer Duffield, Tiffany Klitzke	6272-002	P3-4-4.0		1025									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-1-1.0		1105									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-1-2.5		1116									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-1-4.0		1125									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-2-1.0		1135									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-2-2.5		1140									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-2-4.0		1145									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-3-1.0		1245									
		Jennifer Duffield, Tiffany Klitzke	6272-002	P4-3-2.5		1300									
CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments			
Signature	Print Name	Company / Title	Date / Time	Signature	Print Name	Company / Title	Date / Time	Signature	Print Name	Company / Title	Date / Time	Signature	Print Name	Company / Title	Date / Time
	Tiffany Klitzke	GSI / Senior Scientist	7/14/22 / 1545		Maxwell Gomboc	EA	7/14/22 / 1545		Tiffany Klitzke	GSI / Senior Scientist	7/14/22 / 1545		Maxwell Gomboc	EA	7/14/22 / 1545
	Jennifer Duffield	GSI	7/14/22 / 1711		Tiffany Klitzke	GSI	7/14/22 / 1711		Maxwell Gomboc	EA	7/14/22 / 1711		Jennifer Duffield	GSI	7/14/22 / 1711
	Jennifer Duffield	GSI	7/14/22 / 1711		Tiffany Klitzke	GSI	7/14/22 / 1711		Maxwell Gomboc	EA	7/14/22 / 1711		Jennifer Duffield	GSI	7/14/22 / 1711
	Jennifer Duffield	GSI	7/14/22 / 1711		Tiffany Klitzke	GSI	7/14/22 / 1711		Maxwell Gomboc	EA	7/14/22 / 1711		Jennifer Duffield	GSI	7/14/22 / 1711
	Jennifer Duffield	GSI	7/14/22 / 1711		Tiffany Klitzke	GSI	7/14/22 / 1711		Maxwell Gomboc	EA	7/14/22 / 1711		Jennifer Duffield	GSI	7/14/22 / 1711



Enthalpy Analytical - Berkeley

2323 5th Street, Berkeley, CA 94710
Phone 510-486-0900

Chain of Custody Record

Lab No: 465763
Page: 3 of 3

Turn Around Time (rush by advanced notice only)

Standard: 5 Day: 3 Day:
2 Day: 1 Day: Custom TAT:

Matrix: A = Air S = Soil/Solid
W = Water DW = Drinking Water SD = Sediment
PP = Pure Product SEA = Sea Water
SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
4 = H₂SO₄ 5 = NaOH 6 = Other

Sample Receipt Temp:
(lab use only)

PROJECT INFORMATION

Name: Berkeley Santa Fe Row
Number: 6272-002
P.O. #: 6272-002
Address:
Global ID: NA
Sampled By: TKitzke

Test Instructions / Comments

Analysis Request
The 22 metals by GSI/PA
CPS by 806174
TRHD + THM by 805
FATS by 807005
HOLD

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
P4-3-4.0	7/14/22	1311	80	8oz jar	-
P4-4-1.0	↓	1325	↓	↓	↓
P4-4-2.5	↓	1335	↓	↓	↓
P4-4-4.0	↓	1340	↓	↓	↓

Signature	Print Name	Company / Title	Date / Time
	Tiffany Kitzke	GSI / Senior Scientist	7/14/22 1545
	Mirel Gamboa	EA	7/14/22 1545
	Lisa	EA	7/14/22 1704
	Adam	EA	7/15/22 0830

SAMPLE RECEIPT CHECKLIST



Section 1: Login # 465763 Client: CSI
 Date Received: 7/14/22 Project: _____

Section 2: Shipping info (if applicable) _____
 Are custody seals present? No, or Yes. If yes, where? on cooler, on samples, on package
 Date: _____ How many _____ Signature, Initials, None
 Were custody seals intact upon arrival? Yes No N/A
 Samples received in a cooler? Yes, how many? 2 No (skip Section 3 below)
 If no cooler Sample Temp (°C): _____ using IR Gun # B, or C
 Samples received on ice directly from the field. Cooling process had begun
 If in cooler: Date Opened 7/14/22 (print) me (sign) _____

Section 3: *Important: Notify PM if temperature exceeds 6°C or arrive frozen.*
 Packing in cooler: (if other, describe) _____
 Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels
 Samples received on ice directly from the field. Cooling process had begun
 Type of ice used: Wet, Blue/Gel, None Temperature blank(s) included? Yes, No
 Temperature measured using Thermometer ID: _____, or IR Gun # B C
 Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	/		
Were Method 5035 sampling containers present?		/	
If YES, what time were they transferred to freezer?	/		
Did all bottles arrive unbroken/unopened?	/		
Are there any missing / extra samples?		/	
Are samples in the appropriate containers for indicated tests?	/	/	
Are sample labels present, in good condition and complete?	/	/	
Does the container count match the COC?	/	/	
Do the sample labels agree with custody papers?	/	/	
Was sufficient amount of sample sent for tests requested?	/		
Did you change the hold time in LIMS for unpreserved VOAs?			/
Did you change the hold time in LIMS for preserved terracores?			/
Are bubbles > 6mm present in VOA samples?			/
Was the client contacted concerning this sample delivery?			
If YES, who was called? _____ By _____ Date: _____			

Section 5: YES NO N/A
 Are the samples appropriately preserved? (if N/A, skip the rest of section 5)
 Did you check preservatives for all bottles for each sample?
 Did you document your preservative check?
 pH strip lot# _____, 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: _____

Date Logged in 7/14/22 By (print) LEP for MK (sign) [Signature]
 Date Labeled 7/14/22 By (print) USP (sign) [Signature]



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1
 Client: GSI Environmental, Inc. Project: Berkeley Santa Fe Row
 Date Received: 07/15/22 Sampler's Name Present: Yes No


Section 2
 Sample(s) received in a cooler? Yes, How many? 1 No (skip section 2) Sample Temp (°C) (No Cooler) : _____
 Sample Temp (°C), One from each cooler: #1: 4.2 #2: _____ #3: _____ #4: _____
(Acceptance range is < 6°C but not frozen [for Microbiology samples, acceptance range is < 10°C but not frozen]. It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)
 Shipping Information: Grayhound

Section 3
 Was the cooler packed with: Ice Ice Packs Bubble Wrap Styrofoam
 Paper None Other _____
 Cooler Temp (°C): #1: 1.4 #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?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6
 For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time _____
 Email (email sent to/on): _____ / _____
 Project Manager's response:

Completed By:  Date: 7/15/22



**PACKAGE
EXPRESS**



A8648595B

LBLBC-GPX (REV 11/19)

W LABEL

1.4 / 4.2

Analysis Results for 465763

Jennifer Duffield
 GSI Environmental, Inc.
 155 Grand Ave
 Suite 704
 Oakland, CA 94612

Lab Job #: 465763
 Project No: 6272
 Location: Berkeley Santa Fe Row
 Date Received: 07/14/22

Sample ID: P3-1-2.5	Lab ID: 465763-002	Collected: 07/14/22 08:25
Matrix: Soil		

465763-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.7	0.91	293123	07/16/22	07/20/22	KLN
Arsenic	6.5		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Barium	190		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Beryllium	0.56		mg/Kg	0.45	0.91	293123	07/16/22	07/20/22	KLN
Cadmium	0.59		mg/Kg	0.45	0.91	293123	07/16/22	07/20/22	KLN
Chromium	46		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Cobalt	10		mg/Kg	0.45	0.91	293123	07/16/22	07/20/22	KLN
Copper	26		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Lead	11		mg/Kg	0.91	0.91	293123	07/16/22	07/27/22	KLN
Molybdenum	ND		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Nickel	45		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Selenium	ND		mg/Kg	2.7	0.91	293123	07/16/22	07/20/22	KLN
Silver	ND		mg/Kg	0.45	0.91	293123	07/16/22	07/20/22	KLN
Thallium	ND		mg/Kg	2.7	0.91	293123	07/16/22	07/20/22	KLN
Vanadium	43		mg/Kg	0.91	0.91	293123	07/16/22	07/20/22	KLN
Zinc	56		mg/Kg	4.5	0.91	293123	07/16/22	07/20/22	KLN
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND		mg/Kg	0.17	1.2	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	76%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Endosulfan I	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDD	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	100	1	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	74%		%REC	23-120	1	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	70%		%REC	24-120	1	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	81%		%REC	27-125	1	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	66%		%REC	30-120	1	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	79%		%REC	33-155	1	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P3-2-1.0	Lab ID: 465763-004	Collected: 07/14/22 08:42
Matrix: Soil		

465763-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.8	0.94	293123	07/16/22	07/20/22	KLN
Arsenic	120		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Barium	66		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Beryllium	ND		mg/Kg	0.47	0.94	293123	07/16/22	07/20/22	KLN
Cadmium	0.65		mg/Kg	0.47	0.94	293123	07/16/22	07/20/22	KLN
Chromium	35		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Cobalt	7.3		mg/Kg	0.47	0.94	293123	07/16/22	07/20/22	KLN
Copper	42		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Lead	66		mg/Kg	0.94	0.94	293123	07/16/22	07/18/22	KLN
Molybdenum	ND		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Nickel	41		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Selenium	ND		mg/Kg	2.8	0.94	293123	07/16/22	07/20/22	KLN
Silver	ND		mg/Kg	0.47	0.94	293123	07/16/22	07/20/22	KLN
Thallium	ND		mg/Kg	2.8	0.94	293123	07/16/22	07/20/22	KLN
Vanadium	35		mg/Kg	0.94	0.94	293123	07/16/22	07/20/22	KLN
Zinc	96		mg/Kg	4.7	0.94	293123	07/16/22	07/20/22	KLN
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	1.7		mg/Kg	0.16	1.2	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	50	5	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	100	5	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	86%		%REC	70-130	5	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	11	C	ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	40		ug/Kg	9.8	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	98	2	293639	07/23/22	07/25/22	TJW

Surrogates			Limits						
TCMX	63%	%REC	23-120	2	293639	07/23/22	07/25/22	TJW	
Decachlorobiphenyl	118%	%REC	24-120	2	293639	07/23/22	07/25/22	TJW	

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Fluoranthene	160		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Pyrene	190		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	160		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Chrysene	220		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	280		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	240		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	280		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	270		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	220		ug/Kg	100	10	293055	07/15/22	07/18/22	TJW

Surrogates			Limits						
Nitrobenzene-d5	78%	%REC	27-125	10	293055	07/15/22	07/18/22	TJW	
2-Fluorobiphenyl	68%	%REC	30-120	10	293055	07/15/22	07/18/22	TJW	
Terphenyl-d14	78%	%REC	33-155	10	293055	07/15/22	07/18/22	TJW	

Analysis Results for 465763

Sample ID: P3-2-2.5	Lab ID: 465763-005	Collected: 07/14/22 09:00
Matrix: Soil		

465763-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/19/22	SBW
Arsenic	67		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Barium	130		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Beryllium	ND		mg/Kg	0.45	0.89	293124	07/16/22	07/19/22	SBW
Cadmium	0.57		mg/Kg	0.45	0.89	293124	07/16/22	07/19/22	SBW
Chromium	56		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Cobalt	13		mg/Kg	0.45	0.89	293124	07/16/22	07/19/22	SBW
Copper	60		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Lead	22		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Molybdenum	ND		mg/Kg	0.89	0.89	293124	07/16/22	07/26/22	SBW
Nickel	65		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Selenium	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/19/22	SBW
Silver	ND		mg/Kg	0.45	0.89	293124	07/16/22	07/19/22	SBW
Thallium	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/19/22	SBW
Vanadium	39		mg/Kg	0.89	0.89	293124	07/16/22	07/19/22	SBW
Zinc	110		mg/Kg	4.5	0.89	293124	07/16/22	07/19/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	0.96		mg/Kg	0.16	1.1	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	80%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endosulfan I	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW

Analysis Results for 465763

465763-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293639	07/23/22	07/24/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293639	07/23/22	07/24/22	TJW
Toxaphene	ND		ug/Kg	100	1	293639	07/23/22	07/24/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293639	07/23/22	07/24/22	TJW

Surrogates				Limits					
TCMX	78%		%REC	23-120	1	293639	07/23/22	07/24/22	TJW
Decachlorobiphenyl	83%		%REC	24-120	1	293639	07/23/22	07/24/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	2	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	70%		%REC	27-125	2	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	63%		%REC	30-120	2	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	76%		%REC	33-155	2	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P3-3-1.0	Lab ID: 465763-007	Collected: 07/14/22 09:15
Matrix: Soil		

465763-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.7	0.88	293124	07/16/22	07/26/22	SBW
Arsenic	12		mg/Kg	0.88	0.88	293124	07/16/22	07/27/22	SBW
Barium	180		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.44	0.88	293124	07/16/22	07/27/22	SBW
Cadmium	0.72		mg/Kg	0.44	0.88	293124	07/16/22	07/26/22	SBW
Chromium	41		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Cobalt	9.5		mg/Kg	0.44	0.88	293124	07/16/22	07/26/22	SBW
Copper	32		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Lead	84		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.88	0.88	293124	07/16/22	07/27/22	SBW
Nickel	39		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	2.7	0.88	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.44	0.88	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.7	0.88	293124	07/16/22	07/26/22	SBW
Vanadium	41		mg/Kg	0.88	0.88	293124	07/16/22	07/26/22	SBW
Zinc	150		mg/Kg	4.4	0.88	293124	07/16/22	07/26/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	0.21		mg/Kg	0.16	1.2	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	120		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	87		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	78%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Dieldrin	10		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	9.9	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	99	2	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	75%		%REC	23-120	2	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	64%		%REC	24-120	2	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	99	9.9	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	61%		%REC	27-125	9.9	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	56%		%REC	30-120	9.9	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	66%		%REC	33-155	9.9	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P3-3-2.5	Lab ID: 465763-008	Collected: 07/14/22 09:20
Matrix: Soil		

465763-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	3.0	0.99	293433	07/21/22	07/25/22	SBW
Arsenic	7.8		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Barium	160		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Beryllium	ND		mg/Kg	0.50	0.99	293433	07/21/22	07/25/22	SBW
Cadmium	0.69		mg/Kg	0.50	0.99	293433	07/21/22	07/25/22	SBW
Chromium	37		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Cobalt	12		mg/Kg	0.50	0.99	293433	07/21/22	07/25/22	SBW
Copper	30		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Lead	68		mg/Kg	0.99	0.99	293433	07/21/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Nickel	40		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Selenium	ND		mg/Kg	3.0	0.99	293433	07/21/22	07/25/22	SBW
Silver	0.56		mg/Kg	0.50	0.99	293433	07/21/22	07/25/22	SBW
Thallium	ND		mg/Kg	3.0	0.99	293433	07/21/22	07/25/22	SBW
Vanadium	36		mg/Kg	0.99	0.99	293433	07/21/22	07/25/22	SBW
Zinc	140		mg/Kg	5.0	0.99	293433	07/21/22	07/25/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	0.20		mg/Kg	0.14	1	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	160		mg/Kg	100	10	293535	07/22/22	07/22/22	MES
ORO C28-C44	490		mg/Kg	200	10	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	90%		%REC	70-130	10	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	25	4.9	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	49	4.9	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	490	4.9	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	250	4.9	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	92%		%REC	23-120	4.9	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	71%		%REC	24-120	4.9	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	57%		%REC	27-125	25	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	57%		%REC	30-120	25	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	67%		%REC	33-155	25	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P3-4-1.0	Lab ID: 465763-010	Collected: 07/14/22 09:55
Matrix: Soil		

465763-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.8	0.94	293124	07/16/22	07/18/22	SBW
Arsenic	13		mg/Kg	0.94	0.94	293124	07/16/22	07/27/22	SBW
Barium	130		mg/Kg	0.94	0.94	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.47	0.94	293124	07/16/22	07/27/22	SBW
Cadmium	0.57		mg/Kg	0.47	0.94	293124	07/16/22	07/26/22	SBW
Chromium	45		mg/Kg	0.94	0.94	293124	07/16/22	07/18/22	SBW
Cobalt	15		mg/Kg	0.47	0.94	293124	07/16/22	07/26/22	SBW
Copper	34		mg/Kg	0.94	0.94	293124	07/16/22	07/18/22	SBW
Lead	43		mg/Kg	0.94	0.94	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.94	0.94	293124	07/16/22	07/18/22	SBW
Nickel	45		mg/Kg	0.94	0.94	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	2.8	0.94	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.47	0.94	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.8	0.94	293124	07/16/22	07/26/22	SBW
Vanadium	50		mg/Kg	0.94	0.94	293124	07/16/22	07/18/22	SBW
Zinc	73		mg/Kg	4.7	0.94	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND		mg/Kg	0.15	1.1	293144	07/17/22	07/18/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	65		mg/Kg	50	5	293535	07/22/22	07/22/22	MES
ORO C28-C44	210		mg/Kg	100	5	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	89%		%REC	70-130	5	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	50	5	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	500	5	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	250	5	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	90%		%REC	23-120	5	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	80%		%REC	24-120	5	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	45%		%REC	27-125	20	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	44%		%REC	30-120	20	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	50%		%REC	33-155	20	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P4-1-1.0	Lab ID: 465763-013	Collected: 07/14/22 11:05
Matrix: Soil		

465763-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	3.0	1	293124	07/16/22	07/18/22	SBW
Arsenic	140		mg/Kg	1.0	1	293124	07/16/22	07/27/22	SBW
Barium	190		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.50	1	293124	07/16/22	07/18/22	SBW
Cadmium	1.9		mg/Kg	0.50	1	293124	07/16/22	07/26/22	SBW
Chromium	75		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Cobalt	14		mg/Kg	0.50	1	293124	07/16/22	07/26/22	SBW
Copper	81		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Lead	280		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Nickel	120		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	3.0	1	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.50	1	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	3.0	1	293124	07/16/22	07/26/22	SBW
Vanadium	37		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Zinc	440		mg/Kg	5.0	1	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	2.1		mg/Kg	0.33	2.4	293144	07/17/22	07/18/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	50	5	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	100	5	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	86%		%REC	70-130	5	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
4,4'-DDE	37		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
4,4'-DDT	140		ug/Kg	25	5	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	50	5	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	500	5	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	250	5	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	86%		%REC	23-120	5	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	80%		%REC	24-120	5	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Pyrene	260		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Chrysene	260		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	290		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	270		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	310		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	290		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	250		ug/Kg	250	25	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	78%		%REC	27-125	25	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	76%		%REC	30-120	25	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	88%		%REC	33-155	25	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P4-1-2.5	Lab ID: 465763-014	Collected: 07/14/22 11:16
Matrix: Soil		

465763-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.8	0.93	293124	07/16/22	07/18/22	SBW
Arsenic	88		mg/Kg	0.93	0.93	293124	07/16/22	07/27/22	SBW
Barium	160		mg/Kg	0.93	0.93	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.47	0.93	293124	07/16/22	07/27/22	SBW
Cadmium	0.47		mg/Kg	0.47	0.93	293124	07/16/22	07/26/22	SBW
Chromium	26		mg/Kg	0.93	0.93	293124	07/16/22	07/18/22	SBW
Cobalt	17		mg/Kg	0.47	0.93	293124	07/16/22	07/26/22	SBW
Copper	28		mg/Kg	0.93	0.93	293124	07/16/22	07/18/22	SBW
Lead	21		mg/Kg	0.93	0.93	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.93	0.93	293124	07/16/22	07/18/22	SBW
Nickel	47		mg/Kg	0.93	0.93	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	2.8	0.93	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.47	0.93	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.8	0.93	293124	07/16/22	07/26/22	SBW
Vanadium	24		mg/Kg	0.93	0.93	293124	07/16/22	07/18/22	SBW
Zinc	60		mg/Kg	4.7	0.93	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	0.25		mg/Kg	0.15	1.1	293144	07/17/22	07/18/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	78%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.0	0.99	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	9.9	0.99	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	99	0.99	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	50	0.99	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	85%	%REC	23-120	0.99	293639	07/23/22	07/25/22	TJW	
Decachlorobiphenyl	83%	%REC	24-120	0.99	293639	07/23/22	07/25/22	TJW	

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	89%	%REC	27-125	1	293055	07/15/22	07/18/22	TJW	
2-Fluorobiphenyl	76%	%REC	30-120	1	293055	07/15/22	07/18/22	TJW	
Terphenyl-d14	86%	%REC	33-155	1	293055	07/15/22	07/18/22	TJW	

Analysis Results for 465763

Sample ID: P4-2-1.0
Lab ID: 465763-016
Collected: 07/14/22 11:35
Matrix: Soil

465763-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.8	0.92	293124	07/16/22	07/18/22	SBW
Arsenic	23		mg/Kg	0.92	0.92	293124	07/16/22	07/27/22	SBW
Barium	100		mg/Kg	0.92	0.92	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.46	0.92	293124	07/16/22	07/26/22	SBW
Cadmium	ND		mg/Kg	0.46	0.92	293124	07/16/22	07/26/22	SBW
Chromium	19		mg/Kg	0.92	0.92	293124	07/16/22	07/26/22	SBW
Cobalt	9.6		mg/Kg	0.46	0.92	293124	07/16/22	07/26/22	SBW
Copper	23		mg/Kg	0.92	0.92	293124	07/16/22	07/18/22	SBW
Lead	13		mg/Kg	0.92	0.92	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.92	0.92	293124	07/16/22	07/18/22	SBW
Nickel	31		mg/Kg	0.92	0.92	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	2.8	0.92	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.46	0.92	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.8	0.92	293124	07/16/22	07/26/22	SBW
Vanadium	23		mg/Kg	0.92	0.92	293124	07/16/22	07/18/22	SBW
Zinc	44		mg/Kg	4.6	0.92	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.2	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	79%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	100	1	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	80%	%REC		23-120	1	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	78%	%REC		24-120	1	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	66%	%REC		27-125	1	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	61%	%REC		30-120	1	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	68%	%REC		33-155	1	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P4-2-2.5	Lab ID: 465763-017	Collected: 07/14/22 11:40
Matrix: Soil		

465763-017 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	3.1	1	293124	07/16/22	07/18/22	SBW
Arsenic	4.2		mg/Kg	1.0	1	293124	07/16/22	07/27/22	SBW
Barium	200		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.52	1	293124	07/16/22	07/27/22	SBW
Cadmium	0.55		mg/Kg	0.52	1	293124	07/16/22	07/26/22	SBW
Chromium	44		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Cobalt	14		mg/Kg	0.52	1	293124	07/16/22	07/26/22	SBW
Copper	27		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Lead	11		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Nickel	41		mg/Kg	1.0	1	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	3.1	1	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.52	1	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	3.1	1	293124	07/16/22	07/26/22	SBW
Vanadium	42		mg/Kg	1.0	1	293124	07/16/22	07/18/22	SBW
Zinc	44		mg/Kg	5.2	1	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.1	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	81%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-017 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.0	1	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	100	1	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	50	1	293639	07/23/22	07/25/22	TJW
Surrogates			Limits						
TCMX	88%		%REC	23-120	1	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	87%		%REC	24-120	1	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Phenanthrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Chrysene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Surrogates			Limits						
Nitrobenzene-d5	74%		%REC	27-125	1	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	61%		%REC	30-120	1	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	68%		%REC	33-155	1	293055	07/15/22	07/18/22	TJW

Analysis Results for 465763

Sample ID: P4-3-2.5	Lab ID: 465763-020	Collected: 07/14/22 13:00
Matrix: Soil		

465763-020 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.7	0.91	293124	07/16/22	07/18/22	SBW
Arsenic	8.2		mg/Kg	0.91	0.91	293124	07/16/22	07/27/22	SBW
Barium	180		mg/Kg	0.91	0.91	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.45	0.91	293124	07/16/22	07/27/22	SBW
Cadmium	ND		mg/Kg	0.45	0.91	293124	07/16/22	07/26/22	SBW
Chromium	25		mg/Kg	0.91	0.91	293124	07/16/22	07/18/22	SBW
Cobalt	9.8		mg/Kg	0.45	0.91	293124	07/16/22	07/26/22	SBW
Copper	21		mg/Kg	0.91	0.91	293124	07/16/22	07/18/22	SBW
Lead	12		mg/Kg	0.91	0.91	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.91	0.91	293124	07/16/22	07/18/22	SBW
Nickel	34		mg/Kg	0.91	0.91	293124	07/16/22	07/26/22	SBW
Selenium	ND		mg/Kg	2.7	0.91	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.45	0.91	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.7	0.91	293124	07/16/22	07/26/22	SBW
Vanadium	26		mg/Kg	0.91	0.91	293124	07/16/22	07/18/22	SBW
Zinc	62		mg/Kg	4.5	0.91	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND		mg/Kg	0.14	1	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	ND		mg/Kg	10	1	293535	07/22/22	07/22/22	MES
ORO C28-C44	ND		mg/Kg	20	1	293535	07/22/22	07/22/22	MES
Surrogates				Limits					
n-Triacontane	81%		%REC	70-130	1	293535	07/22/22	07/22/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-020 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	5.1	1	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	10	1	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	100	1	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	51	1	293639	07/23/22	07/25/22	TJW

Surrogates			Limits						
TCMX	99%	%REC	23-120	1	293639	07/23/22	07/25/22	TJW	
Decachlorobiphenyl	101%	%REC	24-120	1	293639	07/23/22	07/25/22	TJW	

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	11		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	11		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Acenaphthene	12		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluorene	21		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Phenanthrene	210		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Anthracene	48		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Fluoranthene	170		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Pyrene	160		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	79		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Chrysene	64		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	49		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	49		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	66		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	42		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	33		ug/Kg	10	1	293055	07/15/22	07/18/22	TJW

Surrogates			Limits						
Nitrobenzene-d5	70%	%REC	27-125	1	293055	07/15/22	07/18/22	TJW	
2-Fluorobiphenyl	65%	%REC	30-120	1	293055	07/15/22	07/18/22	TJW	
Terphenyl-d14	72%	%REC	33-155	1	293055	07/15/22	07/18/22	TJW	

Analysis Results for 465763

Sample ID: P4-4-1.0	Lab ID: 465763-022	Collected: 07/14/22 13:25
Matrix: Soil		

465763-022 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/18/22	SBW
Arsenic	51		mg/Kg	0.89	0.89	293124	07/16/22	07/27/22	SBW
Barium	85		mg/Kg	0.89	0.89	293124	07/16/22	07/26/22	SBW
Beryllium	ND		mg/Kg	0.45	0.89	293124	07/16/22	07/18/22	SBW
Cadmium	ND		mg/Kg	0.45	0.89	293124	07/16/22	07/26/22	SBW
Chromium	16		mg/Kg	0.89	0.89	293124	07/16/22	07/26/22	SBW
Cobalt	5.3		mg/Kg	0.45	0.89	293124	07/16/22	07/26/22	SBW
Copper	36		mg/Kg	0.89	0.89	293124	07/16/22	07/18/22	SBW
Lead	42		mg/Kg	0.89	0.89	293124	07/16/22	07/26/22	SBW
Molybdenum	ND		mg/Kg	0.89	0.89	293124	07/16/22	07/18/22	SBW
Nickel	20		mg/Kg	0.89	0.89	293124	07/16/22	07/27/22	SBW
Selenium	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/26/22	SBW
Silver	ND		mg/Kg	0.45	0.89	293124	07/16/22	07/27/22	SBW
Thallium	ND		mg/Kg	2.7	0.89	293124	07/16/22	07/26/22	SBW
Vanadium	24		mg/Kg	0.89	0.89	293124	07/16/22	07/18/22	SBW
Zinc	190		mg/Kg	4.5	0.89	293124	07/16/22	07/18/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	0.81		mg/Kg	0.16	1.1	293144	07/17/22	07/17/22	SBW
Method: EPA 8015M									
Prep Method: EPA 3580									
DRO C10-C28	45		mg/Kg	20	2	293535	07/22/22	07/23/22	MES
ORO C28-C44	76		mg/Kg	40	2	293535	07/22/22	07/23/22	MES
Surrogates				Limits					
n-Triacontane	111%		%REC	70-130	2	293535	07/22/22	07/23/22	MES
Method: EPA 8081A									
Prep Method: EPA 3546									
alpha-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
beta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
gamma-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
delta-BHC	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Aldrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Heptachlor epoxide	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan I	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Dieldrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDE	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan II	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endosulfan sulfate	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW

Analysis Results for 465763

465763-022 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4,4'-DDD	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin aldehyde	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Endrin ketone	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
4,4'-DDT	ND		ug/Kg	10	2	293639	07/23/22	07/25/22	TJW
Methoxychlor	ND		ug/Kg	20	2	293639	07/23/22	07/25/22	TJW
Toxaphene	ND		ug/Kg	200	2	293639	07/23/22	07/25/22	TJW
Chlordane (Technical)	ND		ug/Kg	100	2	293639	07/23/22	07/25/22	TJW

Surrogates				Limits					
TCMX	95%		%REC	23-120	2	293639	07/23/22	07/25/22	TJW
Decachlorobiphenyl	96%		%REC	24-120	2	293639	07/23/22	07/25/22	TJW

Method: EPA 8270C-SIM

Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
2-Methylnaphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Naphthalene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Acenaphthylene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Acenaphthene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Fluorene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Phenanthrene	260		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Anthracene	ND		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Fluoranthene	1,100		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Pyrene	1,500		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(a)anthracene	1,700		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Chrysene	1,800		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(b)fluoranthene	2,400		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(k)fluoranthene	2,400		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(a)pyrene	3,500		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Indeno(1,2,3-cd)pyrene	3,100		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Dibenz(a,h)anthracene	540		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW
Benzo(g,h,i)perylene	2,300		ug/Kg	200	20	293055	07/15/22	07/18/22	TJW

Surrogates				Limits					
Nitrobenzene-d5	58%		%REC	27-125	20	293055	07/15/22	07/18/22	TJW
2-Fluorobiphenyl	61%		%REC	30-120	20	293055	07/15/22	07/18/22	TJW
Terphenyl-d14	71%		%REC	33-155	20	293055	07/15/22	07/18/22	TJW

C Presence confirmed, but RPD between columns exceeds 40%

ND Not Detected

Batch QC

Type: Blank	Lab ID: QC1000908	Batch: 293123
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000908 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	07/16/22	07/20/22
Arsenic	ND		mg/Kg	1.0	07/16/22	07/20/22
Barium	ND		mg/Kg	1.0	07/16/22	07/20/22
Beryllium	ND		mg/Kg	0.50	07/16/22	07/20/22
Cadmium	ND		mg/Kg	0.50	07/16/22	07/20/22
Chromium	ND		mg/Kg	1.0	07/16/22	07/20/22
Cobalt	ND		mg/Kg	0.50	07/16/22	07/20/22
Copper	ND		mg/Kg	1.0	07/16/22	07/18/22
Lead	ND		mg/Kg	1.0	07/16/22	07/18/22
Molybdenum	ND		mg/Kg	1.0	07/16/22	07/20/22
Nickel	ND		mg/Kg	1.0	07/16/22	07/20/22
Selenium	ND		mg/Kg	3.0	07/16/22	07/20/22
Silver	ND		mg/Kg	0.50	07/16/22	07/20/22
Thallium	ND		mg/Kg	3.0	07/16/22	07/20/22
Vanadium	ND		mg/Kg	1.0	07/16/22	07/20/22
Zinc	ND		mg/Kg	5.0	07/16/22	07/20/22

Type: Lab Control Sample	Lab ID: QC1000909	Batch: 293123
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000909 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	109.9	100.0	mg/Kg	110%		80-120
Arsenic	96.08	100.0	mg/Kg	96%		80-120
Barium	102.8	100.0	mg/Kg	103%		80-120
Beryllium	104.3	100.0	mg/Kg	104%		80-120
Cadmium	105.5	100.0	mg/Kg	106%		80-120
Chromium	102.5	100.0	mg/Kg	103%		80-120
Cobalt	104.3	100.0	mg/Kg	104%		80-120
Copper	110.6	100.0	mg/Kg	111%		80-120
Lead	103.6	100.0	mg/Kg	104%		80-120
Molybdenum	101.0	100.0	mg/Kg	101%		80-120
Nickel	105.1	100.0	mg/Kg	105%		80-120
Selenium	111.1	100.0	mg/Kg	111%		80-120
Silver	50.56	50.00	mg/Kg	101%		80-120
Thallium	103.2	100.0	mg/Kg	103%		80-120
Vanadium	103.9	100.0	mg/Kg	104%		80-120
Zinc	110.4	100.0	mg/Kg	110%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC1000910	Batch: 293123
Matrix (Source ID): Soil (464984-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000910 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	35.33	ND	107.5	mg/Kg	33%	*	75-125	1.1
Arsenic	112.9	12.52	107.5	mg/Kg	93%		75-125	1.1
Barium	261.9	112.7	107.5	mg/Kg	139%	*	75-125	1.1
Beryllium	111.0	0.5417	107.5	mg/Kg	103%		75-125	1.1
Cadmium	104.4	2.500	107.5	mg/Kg	95%		75-125	1.1
Chromium	130.8	23.01	107.5	mg/Kg	100%		75-125	1.1
Cobalt	114.1	6.698	107.5	mg/Kg	100%		75-125	1.1
Copper	1,503	114.6	107.5	mg/Kg	1291%	*	75-125	1.1
Lead	161.6	48.57	107.5	mg/Kg	105%		75-125	1.1
Molybdenum	108.8	6.705	107.5	mg/Kg	95%		75-125	1.1
Nickel	118.3	14.82	107.5	mg/Kg	96%		75-125	1.1
Selenium	115.3	0.1458	107.5	mg/Kg	107%		75-125	1.1
Silver	52.85	0.3727	53.76	mg/Kg	98%		75-125	1.1
Thallium	98.14	ND	107.5	mg/Kg	91%		75-125	1.1
Vanadium	152.4	36.82	107.5	mg/Kg	107%		75-125	1.1
Zinc	241.7	114.1	107.5	mg/Kg	119%		75-125	1.1

Type: Matrix Spike Duplicate	Lab ID: QC1000911	Batch: 293123
Matrix (Source ID): Soil (464984-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000911 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Antimony	30.47	ND	98.04	mg/Kg	31%	*	75-125	6	41	0.98
Arsenic	103.3	12.52	98.04	mg/Kg	93%		75-125	1	35	0.98
Barium	221.1	112.7	98.04	mg/Kg	111%		75-125	13	20	0.98
Beryllium	102.0	0.5417	98.04	mg/Kg	103%		75-125	1	20	0.98
Cadmium	99.90	2.500	98.04	mg/Kg	99%		75-125	5	20	0.98
Chromium	126.0	23.01	98.04	mg/Kg	105%		75-125	4	20	0.98
Cobalt	103.5	6.698	98.04	mg/Kg	99%		75-125	1	20	0.98
Copper	183.9	114.6	98.04	mg/Kg	71%	*	75-125	155*	20	0.98
Lead	142.9	48.57	98.04	mg/Kg	96%		75-125	6	20	0.98
Molybdenum	100.1	6.705	98.04	mg/Kg	95%		75-125	0	20	0.98
Nickel	107.6	14.82	98.04	mg/Kg	95%		75-125	1	20	0.98
Selenium	104.5	0.1458	98.04	mg/Kg	106%		75-125	1	20	0.98
Silver	47.34	0.3727	49.02	mg/Kg	96%		75-125	2	20	0.98
Thallium	88.00	ND	98.04	mg/Kg	90%		75-125	2	20	0.98
Vanadium	147.8	36.82	98.04	mg/Kg	113%		75-125	4	20	0.98
Zinc	210.7	114.1	98.04	mg/Kg	99%		75-125	9	20	0.98

Batch QC

Type: Blank	Lab ID: QC1000913	Batch: 293124
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000913 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	07/16/22	07/19/22
Arsenic	ND		mg/Kg	1.0	07/16/22	07/19/22
Barium	ND		mg/Kg	1.0	07/16/22	07/19/22
Beryllium	ND		mg/Kg	0.50	07/16/22	07/19/22
Cadmium	ND		mg/Kg	0.50	07/16/22	07/19/22
Chromium	ND		mg/Kg	1.0	07/16/22	07/19/22
Cobalt	ND		mg/Kg	0.50	07/16/22	07/19/22
Copper	ND		mg/Kg	1.0	07/16/22	07/19/22
Lead	ND		mg/Kg	1.0	07/16/22	07/19/22
Molybdenum	ND		mg/Kg	1.0	07/16/22	07/18/22
Nickel	ND		mg/Kg	1.0	07/16/22	07/19/22
Selenium	ND		mg/Kg	3.0	07/16/22	07/19/22
Silver	ND		mg/Kg	0.50	07/16/22	07/19/22
Thallium	ND		mg/Kg	3.0	07/16/22	07/19/22
Vanadium	ND		mg/Kg	1.0	07/16/22	07/19/22
Zinc	ND		mg/Kg	5.0	07/16/22	07/19/22

Type: Lab Control Sample	Lab ID: QC1000914	Batch: 293124
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000914 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	100.7	100.0	mg/Kg	101%		80-120
Arsenic	96.17	100.0	mg/Kg	96%		80-120
Barium	106.4	100.0	mg/Kg	106%		80-120
Beryllium	94.27	100.0	mg/Kg	94%		80-120
Cadmium	106.5	100.0	mg/Kg	107%		80-120
Chromium	103.8	100.0	mg/Kg	104%		80-120
Cobalt	108.6	100.0	mg/Kg	109%		80-120
Copper	101.8	100.0	mg/Kg	102%		80-120
Lead	101.4	100.0	mg/Kg	101%		80-120
Molybdenum	94.81	100.0	mg/Kg	95%		80-120
Nickel	98.91	100.0	mg/Kg	99%		80-120
Selenium	98.02	100.0	mg/Kg	98%		80-120
Silver	47.04	50.00	mg/Kg	94%		80-120
Thallium	98.79	100.0	mg/Kg	99%		80-120
Vanadium	103.8	100.0	mg/Kg	104%		80-120
Zinc	108.7	100.0	mg/Kg	109%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC1000915	Batch: 293124
Matrix (Source ID): Soil (465763-005)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000915 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	23.92	ND	91.74	mg/Kg	26%	*	75-125	0.92
Arsenic	163.3	67.27	91.74	mg/Kg	105%		75-125	0.92
Barium	246.6	125.4	91.74	mg/Kg	132%	*	75-125	0.92
Beryllium	101.5	0.4196	91.74	mg/Kg	110%	b	75-125	0.92
Cadmium	98.07	0.5714	91.74	mg/Kg	106%		75-125	0.92
Chromium	138.0	56.18	91.74	mg/Kg	89%		75-125	0.92
Cobalt	110.6	13.42	91.74	mg/Kg	106%		75-125	0.92
Copper	161.7	59.93	91.74	mg/Kg	111%		75-125	0.92
Lead	111.3	21.79	91.74	mg/Kg	98%		75-125	0.92
Molybdenum	83.54	ND	91.74	mg/Kg	91%		75-125	0.92
Nickel	144.5	65.45	91.74	mg/Kg	86%		75-125	0.92
Selenium	93.58	ND	91.74	mg/Kg	102%		75-125	0.92
Silver	42.54	ND	45.87	mg/Kg	93%		75-125	0.92
Thallium	83.89	ND	91.74	mg/Kg	91%		75-125	0.92
Vanadium	135.6	38.54	91.74	mg/Kg	106%		75-125	0.92
Zinc	209.4	114.6	91.74	mg/Kg	103%		75-125	0.92

Type: Matrix Spike Duplicate	Lab ID: QC1000916	Batch: 293124
Matrix (Source ID): Soil (465763-005)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1000916 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Antimony	27.16	ND	86.21	mg/Kg	32%	*	75-125	19	41	0.86
Arsenic	153.7	67.27	86.21	mg/Kg	100%		75-125	3	35	0.86
Barium	221.1	125.4	86.21	mg/Kg	111%		75-125	8	20	0.86
Beryllium	101.0	0.4196	86.21	mg/Kg	117%	b	75-125	6	20	0.86
Cadmium	92.76	0.5714	86.21	mg/Kg	107%		75-125	1	20	0.86
Chromium	128.3	56.18	86.21	mg/Kg	84%		75-125	3	20	0.86
Cobalt	105.6	13.42	86.21	mg/Kg	107%		75-125	1	20	0.86
Copper	161.1	59.93	86.21	mg/Kg	117%		75-125	3	20	0.86
Lead	109.9	21.79	86.21	mg/Kg	102%		75-125	4	20	0.86
Molybdenum	86.81	ND	86.21	mg/Kg	101%		75-125	10	20	0.86
Nickel	139.6	65.45	86.21	mg/Kg	86%		75-125	0	20	0.86
Selenium	92.84	ND	86.21	mg/Kg	108%		75-125	5	20	0.86
Silver	41.09	ND	43.10	mg/Kg	95%		75-125	3	20	0.86
Thallium	84.96	ND	86.21	mg/Kg	99%		75-125	7	20	0.86
Vanadium	127.3	38.54	86.21	mg/Kg	103%		75-125	2	20	0.86
Zinc	210.6	114.6	86.21	mg/Kg	111%		75-125	3	20	0.86

Batch QC

Type: Blank	Lab ID: QC1001882	Batch: 293433
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1001882 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	07/21/22	07/25/22
Arsenic	ND		mg/Kg	1.0	07/21/22	07/25/22
Barium	ND		mg/Kg	1.0	07/21/22	07/25/22
Beryllium	ND		mg/Kg	0.50	07/21/22	07/25/22
Cadmium	ND		mg/Kg	0.50	07/21/22	07/25/22
Chromium	ND		mg/Kg	1.0	07/21/22	07/25/22
Cobalt	ND		mg/Kg	0.50	07/21/22	07/25/22
Copper	ND		mg/Kg	1.0	07/21/22	07/25/22
Lead	ND	b	mg/Kg	1.0	07/21/22	07/25/22
Molybdenum	ND		mg/Kg	1.0	07/21/22	07/25/22
Nickel	ND		mg/Kg	1.0	07/21/22	07/25/22
Selenium	ND		mg/Kg	3.0	07/21/22	07/25/22
Silver	ND		mg/Kg	0.50	07/21/22	07/25/22
Thallium	ND		mg/Kg	3.0	07/21/22	07/25/22
Vanadium	ND		mg/Kg	1.0	07/21/22	07/25/22
Zinc	ND		mg/Kg	5.0	07/21/22	07/25/22

Type: Lab Control Sample	Lab ID: QC1001883	Batch: 293433
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1001883 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	98.78	100.0	mg/Kg	99%		80-120
Arsenic	100.9	100.0	mg/Kg	101%		80-120
Barium	100.1	100.0	mg/Kg	100%		80-120
Beryllium	100.8	100.0	mg/Kg	101%		80-120
Cadmium	103.7	100.0	mg/Kg	104%		80-120
Chromium	100.0	100.0	mg/Kg	100%		80-120
Cobalt	103.7	100.0	mg/Kg	104%		80-120
Copper	95.42	100.0	mg/Kg	95%		80-120
Lead	103.2	100.0	mg/Kg	103%	b	80-120
Molybdenum	100.3	100.0	mg/Kg	100%		80-120
Nickel	101.1	100.0	mg/Kg	101%		80-120
Selenium	98.94	100.0	mg/Kg	99%		80-120
Silver	49.70	50.00	mg/Kg	99%		80-120
Thallium	99.98	100.0	mg/Kg	100%		80-120
Vanadium	99.24	100.0	mg/Kg	99%		80-120
Zinc	107.7	100.0	mg/Kg	108%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC1001884	Batch: 293433
Matrix (Source ID): Soil (465763-008)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1001884 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	34.54	0.1533	100.0	mg/Kg	34%	*	75-125	1
Arsenic	110.3	7.847	100.0	mg/Kg	102%		75-125	1
Barium	285.0	164.2	100.0	mg/Kg	121%		75-125	1
Beryllium	103.5	0.3927	100.0	mg/Kg	103%		75-125	1
Cadmium	105.0	0.6901	100.0	mg/Kg	104%		75-125	1
Chromium	141.5	36.85	100.0	mg/Kg	105%		75-125	1
Cobalt	114.2	12.03	100.0	mg/Kg	102%		75-125	1
Copper	130.1	29.60	100.0	mg/Kg	101%		75-125	1
Lead	163.2	68.46	100.0	mg/Kg	95%	b	75-125	1
Molybdenum	96.16	0.6289	100.0	mg/Kg	96%		75-125	1
Nickel	135.8	39.91	100.0	mg/Kg	96%		75-125	1
Selenium	100.2	ND	100.0	mg/Kg	100%		75-125	1
Silver	50.58	0.5644	50.00	mg/Kg	100%		75-125	1
Thallium	99.12	ND	100.0	mg/Kg	99%		75-125	1
Vanadium	151.8	36.33	100.0	mg/Kg	115%		75-125	1
Zinc	228.8	140.6	100.0	mg/Kg	88%		75-125	1

Type: Matrix Spike Duplicate	Lab ID: QC1001885	Batch: 293433
Matrix (Source ID): Soil (465763-008)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1001885 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Antimony	28.39	0.1533	100.0	mg/Kg	28%	*	75-125	20	41	1
Arsenic	106.8	7.847	100.0	mg/Kg	99%		75-125	3	35	1
Barium	371.3	164.2	100.0	mg/Kg	207%	*	75-125	26*	20	1
Beryllium	99.14	0.3927	100.0	mg/Kg	99%		75-125	4	20	1
Cadmium	100.4	0.6901	100.0	mg/Kg	100%		75-125	5	20	1
Chromium	139.1	36.85	100.0	mg/Kg	102%		75-125	2	20	1
Cobalt	126.4	12.03	100.0	mg/Kg	114%		75-125	10	20	1
Copper	128.9	29.60	100.0	mg/Kg	99%		75-125	1	20	1
Lead	184.0	68.46	100.0	mg/Kg	116%	b	75-125	12	20	1
Molybdenum	89.78	0.6289	100.0	mg/Kg	89%		75-125	7	20	1
Nickel	185.2	39.91	100.0	mg/Kg	145%	*	75-125	31*	20	1
Selenium	97.03	ND	100.0	mg/Kg	97%		75-125	3	20	1
Silver	47.88	0.5644	50.00	mg/Kg	95%		75-125	5	20	1
Thallium	97.09	ND	100.0	mg/Kg	97%		75-125	2	20	1
Vanadium	150.1	36.33	100.0	mg/Kg	114%		75-125	1	20	1
Zinc	273.9	140.6	100.0	mg/Kg	133%	*	75-125	18	20	1

Batch QC

Type: Blank	Lab ID: QC1000980	Batch: 293144
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1000980 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	07/17/22	07/17/22

Type: Lab Control Sample	Lab ID: QC1000981	Batch: 293144
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1000981 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8676	0.8333	mg/Kg	104%		80-120

Type: Matrix Spike	Lab ID: QC1000982	Batch: 293144
Matrix (Source ID): Soil (465763-005)	Method: EPA 7471A	Prep Method: METHOD

QC1000982 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	1.582	0.9620	0.8475	mg/Kg	73%	*	75-125	1

Type: Matrix Spike Duplicate	Lab ID: QC1000983	Batch: 293144
Matrix (Source ID): Soil (465763-005)	Method: EPA 7471A	Prep Method: METHOD

QC1000983 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	1.687	0.9620	0.8621	mg/Kg	84%		75-125	6	20	1

Type: Blank	Lab ID: QC1002104	Batch: 293535
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC1002104 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
DRO C10-C28	ND		mg/Kg	10	07/22/22	07/22/22
ORO C28-C44	ND		mg/Kg	20	07/22/22	07/22/22
Surrogates				Limits		
n-Triacontane	82%		%REC	70-130	07/22/22	07/22/22

Batch QC

Type: Matrix Spike	Lab ID: QC1002105	Batch: 293535
Matrix (Source ID): Soil (465778-001)	Method: EPA 8015M	Prep Method: EPA 3580

QC1002105 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	234.4	19.39	248.8	mg/Kg	86%		62-126	2
Surrogates								
n-Triacontane	7.471		9.950	mg/Kg	75%		70-130	2

Type: Matrix Spike Duplicate	Lab ID: QC1002106	Batch: 293535
Matrix (Source ID): Soil (465778-001)	Method: EPA 8015M	Prep Method: EPA 3580

QC1002106 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	228.0	19.39	251.3	mg/Kg	83%		62-126	4	35	2
Surrogates										
n-Triacontane	8.336		10.05	mg/Kg	83%		70-130			2

Type: Lab Control Sample	Lab ID: QC1002192	Batch: 293535
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC1002192 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	239.8	248.8	mg/Kg	96%		76-122
Surrogates						
n-Triacontane	8.185	9.950	mg/Kg	82%		70-130

Batch QC

Type: Blank	Lab ID: QC1002408	Batch: 293639
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002408 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
alpha-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
beta-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
gamma-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
delta-BHC	ND		ug/Kg	5.0	07/23/22	07/24/22
Heptachlor	ND		ug/Kg	5.0	07/23/22	07/24/22
Aldrin	ND		ug/Kg	5.0	07/23/22	07/24/22
Heptachlor epoxide	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan I	ND		ug/Kg	5.0	07/23/22	07/24/22
Dieldrin	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDE	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan II	ND		ug/Kg	5.0	07/23/22	07/24/22
Endosulfan sulfate	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDD	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin aldehyde	ND		ug/Kg	5.0	07/23/22	07/24/22
Endrin ketone	ND		ug/Kg	5.0	07/23/22	07/24/22
4,4'-DDT	ND		ug/Kg	5.0	07/23/22	07/24/22
Methoxychlor	ND		ug/Kg	10	07/23/22	07/24/22
Toxaphene	ND		ug/Kg	100	07/23/22	07/24/22
Chlordane (Technical)	ND		ug/Kg	50	07/23/22	07/24/22
Surrogates				Limits		
TCMX	83%		%REC	23-120	07/23/22	07/24/22
Decachlorobiphenyl	88%		%REC	24-120	07/23/22	07/24/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1002409	Batch: 293639
Matrix: Soil	Method: EPA 8081A	Prep Method: EPA 3546

QC1002409 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
alpha-BHC	43.56	49.50	ug/Kg	88%		22-129
beta-BHC	43.46	49.50	ug/Kg	88%		28-125
gamma-BHC	42.95	49.50	ug/Kg	87%		22-128
delta-BHC	45.97	49.50	ug/Kg	93%		24-131
Heptachlor	46.85	49.50	ug/Kg	95%		18-124
Aldrin	40.44	49.50	ug/Kg	82%		23-120
Heptachlor epoxide	44.62	49.50	ug/Kg	90%		26-120
Endosulfan I	48.84	49.50	ug/Kg	99%		25-126
Dieldrin	45.47	49.50	ug/Kg	92%		23-124
4,4'-DDE	47.42	49.50	ug/Kg	96%		28-121
Endrin	49.73	49.50	ug/Kg	100%		25-127
Endosulfan II	49.08	49.50	ug/Kg	99%		29-121
Endosulfan sulfate	44.07	49.50	ug/Kg	89%		30-121
4,4'-DDD	52.54	49.50	ug/Kg	106%	#	26-120
Endrin aldehyde	40.22	49.50	ug/Kg	81%		10-120
Endrin ketone	45.69	49.50	ug/Kg	92%		28-125
4,4'-DDT	46.07	49.50	ug/Kg	93%		22-125
Methoxychlor	55.03	49.50	ug/Kg	111%		28-130
Surrogates						
TCMX	38.55	49.50	ug/Kg	78%		23-120
Decachlorobiphenyl	42.79	49.50	ug/Kg	86%		24-120

Batch QC

Type: Matrix Spike	Lab ID: QC1002410	Batch: 293639
Matrix (Source ID): Soil (465763-005)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002410 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
alpha-BHC	42.82	ND	50.51	ug/Kg	85%		46-120	1
beta-BHC	42.51	ND	50.51	ug/Kg	84%		41-120	1
gamma-BHC	42.59	ND	50.51	ug/Kg	84%		41-120	1
delta-BHC	46.24	ND	50.51	ug/Kg	92%		38-123	1
Heptachlor	46.73	ND	50.51	ug/Kg	93%		39-120	1
Aldrin	41.25	ND	50.51	ug/Kg	82%		34-120	1
Heptachlor epoxide	44.09	ND	50.51	ug/Kg	87%		43-120	1
Endosulfan I	47.48	ND	50.51	ug/Kg	94%		45-120	1
Dieldrin	45.31	ND	50.51	ug/Kg	90%		45-120	1
4,4'-DDE	46.77	ND	50.51	ug/Kg	93%		34-120	1
Endrin	48.88	ND	50.51	ug/Kg	97%		40-120	1
Endosulfan II	47.38	ND	50.51	ug/Kg	94%		41-120	1
Endosulfan sulfate	42.46	ND	50.51	ug/Kg	84%		42-120	1
4,4'-DDD	50.00	ND	50.51	ug/Kg	99%	#	41-120	1
Endrin aldehyde	41.44	ND	50.51	ug/Kg	82%		30-120	1
Endrin ketone	44.07	ND	50.51	ug/Kg	87%		45-120	1
4,4'-DDT	47.64	ND	50.51	ug/Kg	94%		35-127	1
Methoxychlor	50.07	ND	50.51	ug/Kg	99%		42-136	1
Surrogates								
TCMX	36.00		50.51	ug/Kg	71%		23-120	1
Decachlorobiphenyl	38.76		50.51	ug/Kg	77%		24-120	1

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1002411	Batch: 293639
Matrix (Source ID): Soil (465763-005)	Method: EPA 8081A	Prep Method: EPA 3546

QC1002411 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
alpha-BHC	44.70	ND	50.51	ug/Kg	89%		46-120	4	30	1
beta-BHC	43.31	ND	50.51	ug/Kg	86%		41-120	2	30	1
gamma-BHC	44.22	ND	50.51	ug/Kg	88%		41-120	4	30	1
delta-BHC	49.12	ND	50.51	ug/Kg	97%		38-123	6	30	1
Heptachlor	48.41	ND	50.51	ug/Kg	96%		39-120	4	30	1
Aldrin	42.43	ND	50.51	ug/Kg	84%		34-120	3	30	1
Heptachlor epoxide	44.74	ND	50.51	ug/Kg	89%		43-120	1	30	1
Endosulfan I	48.62	ND	50.51	ug/Kg	96%		45-120	2	30	1
Dieldrin	46.15	ND	50.51	ug/Kg	91%		45-120	2	30	1
4,4'-DDE	47.99	ND	50.51	ug/Kg	95%		34-120	3	30	1
Endrin	49.56	ND	50.51	ug/Kg	98%		40-120	1	30	1
Endosulfan II	47.97	ND	50.51	ug/Kg	95%		41-120	1	30	1
Endosulfan sulfate	41.48	ND	50.51	ug/Kg	82%		42-120	2	30	1
4,4'-DDD	50.15	ND	50.51	ug/Kg	99%	#	41-120	0	30	1
Endrin aldehyde	40.48	ND	50.51	ug/Kg	80%		30-120	2	30	1
Endrin ketone	44.57	ND	50.51	ug/Kg	88%		45-120	1	30	1
4,4'-DDT	47.47	ND	50.51	ug/Kg	94%		35-127	0	30	1
Methoxychlor	49.43	ND	50.51	ug/Kg	98%		42-136	1	30	1
Surrogates										
TCMX	37.57		50.51	ug/Kg	74%		23-120			1
Decachlorobiphenyl	38.59		50.51	ug/Kg	76%		24-120			1

Batch QC

Type: Matrix Spike	Lab ID: QC1000856	Batch: 293055
Matrix (Source ID): Soil (465763-016)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1000856 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	123.2	ND	198.8	ug/Kg	62%		25-130	0.99
2-Methylnaphthalene	141.4	ND	198.8	ug/Kg	71%		32-133	0.99
Naphthalene	136.7	ND	198.8	ug/Kg	69%		33-130	0.99
Acenaphthylene	136.9	ND	198.8	ug/Kg	69%		14-157	0.99
Acenaphthene	134.3	ND	198.8	ug/Kg	68%		28-134	0.99
Fluorene	136.6	ND	198.8	ug/Kg	69%		27-140	0.99
Phenanthrene	147.4	ND	198.8	ug/Kg	74%		29-147	0.99
Anthracene	128.4	ND	198.8	ug/Kg	65%		24-156	0.99
Fluoranthene	143.6	7.025	198.8	ug/Kg	69%		28-160	0.99
Pyrene	140.6	8.364	198.8	ug/Kg	67%		26-153	0.99
Benzo(a)anthracene	154.5	5.651	198.8	ug/Kg	75%		26-174	0.99
Chrysene	126.7	6.961	198.8	ug/Kg	60%		40-139	0.99
Benzo(b)fluoranthene	162.4	7.191	198.8	ug/Kg	78%		36-164	0.99
Benzo(k)fluoranthene	143.4	7.039	198.8	ug/Kg	69%		36-161	0.99
Benzo(a)pyrene	133.2	8.021	198.8	ug/Kg	63%		18-173	0.99
Indeno(1,2,3-cd)pyrene	164.7	8.976	198.8	ug/Kg	78%		26-154	0.99
Dibenz(a,h)anthracene	150.9	ND	198.8	ug/Kg	76%		38-132	0.99
Benzo(g,h,i)perylene	132.2	8.558	198.8	ug/Kg	62%		36-130	0.99
Surrogates								
Nitrobenzene-d5	159.1		198.8	ug/Kg	80%		27-125	0.99
2-Fluorobiphenyl	135.0		198.8	ug/Kg	68%		30-120	0.99
Terphenyl-d14	148.3		198.8	ug/Kg	75%		33-155	0.99

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1000857	Batch: 293055
Matrix (Source ID): Soil (465763-016)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1000857 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	119.4	ND	200.6	ug/Kg	60%		25-130	4	35	1
2-Methylnaphthalene	140.1	ND	200.6	ug/Kg	70%		32-133	2	35	1
Naphthalene	135.2	ND	200.6	ug/Kg	67%		33-130	2	35	1
Acenaphthylene	134.1	ND	200.6	ug/Kg	67%		14-157	3	35	1
Acenaphthene	130.1	ND	200.6	ug/Kg	65%		28-134	4	35	1
Fluorene	134.0	ND	200.6	ug/Kg	67%		27-140	3	35	1
Phenanthrene	141.6	ND	200.6	ug/Kg	71%		29-147	5	35	1
Anthracene	127.7	ND	200.6	ug/Kg	64%		24-156	1	35	1
Fluoranthene	139.2	7.025	200.6	ug/Kg	66%		28-160	4	35	1
Pyrene	135.8	8.364	200.6	ug/Kg	64%		26-153	4	35	1
Benzo(a)anthracene	151.3	5.651	200.6	ug/Kg	73%		26-174	3	35	1
Chrysene	120.5	6.961	200.6	ug/Kg	57%		40-139	6	35	1
Benzo(b)fluoranthene	165.4	7.191	200.6	ug/Kg	79%		36-164	1	35	1
Benzo(k)fluoranthene	132.6	7.039	200.6	ug/Kg	63%		36-161	9	35	1
Benzo(a)pyrene	134.0	8.021	200.6	ug/Kg	63%		18-173	0	35	1
Indeno(1,2,3-cd)pyrene	161.7	8.976	200.6	ug/Kg	76%		26-154	3	35	1
Dibenz(a,h)anthracene	148.0	ND	200.6	ug/Kg	74%		38-132	3	35	1
Benzo(g,h,i)perylene	130.4	8.558	200.6	ug/Kg	61%		36-130	2	35	1
Surrogates										
Nitrobenzene-d5	155.1		200.6	ug/Kg	77%		27-125			1
2-Fluorobiphenyl	132.4		200.6	ug/Kg	66%		30-120			1
Terphenyl-d14	143.1		200.6	ug/Kg	71%		33-155			1

Batch QC

Type: Lab Control Sample	Lab ID: QC1000858	Batch: 293055
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1000858 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	138.7	201.1	ug/Kg	69%		28-130
2-Methylnaphthalene	161.8	201.1	ug/Kg	80%		33-130
Naphthalene	158.7	201.1	ug/Kg	79%		25-130
Acenaphthylene	153.2	201.1	ug/Kg	76%		28-130
Acenaphthene	151.3	201.1	ug/Kg	75%		32-130
Fluorene	152.0	201.1	ug/Kg	76%		35-130
Phenanthrene	156.2	201.1	ug/Kg	78%		35-132
Anthracene	143.6	201.1	ug/Kg	71%		34-136
Fluoranthene	144.4	201.1	ug/Kg	72%		34-139
Pyrene	140.7	201.1	ug/Kg	70%		35-134
Benzo(a)anthracene	152.8	201.1	ug/Kg	76%		30-132
Chrysene	135.2	201.1	ug/Kg	67%		29-130
Benzo(b)fluoranthene	156.4	201.1	ug/Kg	78%		32-137
Benzo(k)fluoranthene	152.1	201.1	ug/Kg	76%		32-130
Benzo(a)pyrene	144.3	201.1	ug/Kg	72%		10-138
Indeno(1,2,3-cd)pyrene	169.4	201.1	ug/Kg	84%		34-132
Dibenz(a,h)anthracene	169.0	201.1	ug/Kg	84%		32-130
Benzo(g,h,i)perylene	146.1	201.1	ug/Kg	73%		27-130
Surrogates						
Nitrobenzene-d5	183.2	201.1	ug/Kg	91%		27-125
2-Fluorobiphenyl	157.5	201.1	ug/Kg	78%		30-120
Terphenyl-d14	157.4	201.1	ug/Kg	78%		33-155

Batch QC

Type: Blank	Lab ID: QC1000859	Batch: 293055
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1000859 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	07/15/22	07/18/22
2-Methylnaphthalene	ND		ug/Kg	10	07/15/22	07/18/22
Naphthalene	ND		ug/Kg	10	07/15/22	07/18/22
Acenaphthylene	ND		ug/Kg	10	07/15/22	07/18/22
Acenaphthene	ND		ug/Kg	10	07/15/22	07/18/22
Fluorene	ND		ug/Kg	10	07/15/22	07/18/22
Phenanthrene	ND		ug/Kg	10	07/15/22	07/18/22
Anthracene	ND		ug/Kg	10	07/15/22	07/18/22
Fluoranthene	ND		ug/Kg	10	07/15/22	07/18/22
Pyrene	ND		ug/Kg	10	07/15/22	07/18/22
Benzo(a)anthracene	ND		ug/Kg	10	07/15/22	07/18/22
Chrysene	ND		ug/Kg	10	07/15/22	07/18/22
Benzo(b)fluoranthene	ND		ug/Kg	10	07/15/22	07/18/22
Benzo(k)fluoranthene	ND		ug/Kg	10	07/15/22	07/18/22
Benzo(a)pyrene	ND		ug/Kg	10	07/15/22	07/18/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	07/15/22	07/18/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	07/15/22	07/18/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	07/15/22	07/18/22
Surrogates				Limits		
Nitrobenzene-d5	83%		%REC	27-125	07/15/22	07/18/22
2-Fluorobiphenyl	74%		%REC	30-120	07/15/22	07/18/22
Terphenyl-d14	88%		%REC	33-155	07/15/22	07/18/22

CCV drift outside limits; average CCV drift within limits per method requirements

* Value is outside QC limits

ND Not Detected

b See narrative



ENTHALPY
ANALYTICAL

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Lab Job Number: 467345
Report Level: II
Report Date: 08/17/2022

Analytical Report *prepared for:*

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Project: 6272 - Berkeley Santa Fe Row

Authorized for release by:

John Goyette, Service Center Manager
(510) 204-2233 Ext 13112
john.goyette@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

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Lab Job #: 467345
Project No: 6272
Location: Berkeley Santa Fe Row
Dates Received: 07/13/22,07/14/22

Sample ID	Lab ID	Collected	Matrix
P3-2-4.0	467345-001	07/14/22 09:05	Soil
P3-4-2.5	467345-002	07/14/22 10:10	Soil
P3-4-4.0	467345-003	07/14/22 10:25	Soil
P4-1-4.0	467345-004	07/14/22 11:25	Soil
P4-4-2.5	467345-005	07/14/22 13:35	Soil
P4-4-4.0	467345-006	07/14/22 13:40	Soil
P1-2-1.0	467345-007	07/13/22 10:40	Soil
P1-2-4.0	467345-008	07/13/22 10:50	Soil
P1-3-2.5	467345-009	07/13/22 11:40	Soil
P1-3-4.0	467345-010	07/13/22 11:55	Soil
P2-1-1.0	467345-011	07/13/22 13:20	Soil
P2-2-2.5	467345-012	07/13/22 14:00	Soil
P2-4-2.5	467345-013	07/13/22 15:25	Soil
P2-1-4.0	467345-014	07/13/22 13:35	Soil

Case Narrative

GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612
Jennifer Duffield

Lab Job Number: 467345
Project No: 6272
Location: Berkeley Santa Fe Row
Dates Received: 07/13/22, 07/14/22

This data package contains sample and QC results for fourteen soil samples, requested for the above referenced project on 08/12/22.

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

- Low recoveries were observed for benzo(a)pyrene, benzo(k)fluoranthene, and chrysene in the MSD of P4-4-2.5 (lab # 467345-005); the LCS was within limits.
- Responses exceeding the instrument's linear range were observed for benzo(a)pyrene and indeno(1,2,3-cd)pyrene in the MS of P4-4-2.5 (lab # 467345-005); affected data was qualified with "E".
- 467345-005 and 467345-006 were prepared outside of hold time; affected data was qualified with "H".
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- Mercury was analyzed outside of hold time; affected data was qualified with "H".
- No other analytical problems were encountered.

----- Forwarded message -----

From: **Jennifer P Duffield** <JPDuffield@gsi-net.com>

Date: Fri, Aug 12, 2022 at 1:17 PM

Subject: [EXTERNAL] RE: 6272 - Enthalpy Data (465763)

To: Tiffany R Klitzke <TRKlitzke@gsi-net.com>, sophia.baughman@enthalpy.com <sophia.baughman@enthalpy.com>
, miguel.gamboa@enthalpy.com <miguel.gamboa@enthalpy.com>

Cc: Max L Williams <MLWilliams@gsi-net.com>

Hi Miguel-

It was nice speaking with you. Thank you for helping us out in Sophia's absence. I believe there was a miscommunication regarding some additional analyses were requested. For Job number 465763, we had requested the following and I don't believe that we have received this data. I think possibly when I indicated that we wanted to cancel the WET and TCLP that it was interpreted that we wanted to cancel all additional requested tests. Can you please check to see if the additional analyses indicated here were run, and if not, can you please run them on a rush turnaround?

Arsenic analyses for the following samples:

P3-2-4.0

P3-4-2.5

P3-4-4.0

P4-1-4.0

P4-4-2.5

P4-4-4.0

PAHs by 8270 SIM for the following samples:

P4-4-2.5

P4-4-4.0

Please let me know if you have any questions and when we can expect results. Thank you.

Jennifer P Duffield, PE (*she/her/hers*)

Senior Associate

GSI Environmental Inc.

☎ [510.858.0702](tel:510.858.0702) | 📠 [510.821.8925](tel:510.821.8925)

On Fri, Aug 12, 2022 at 1:20 PM Jennifer P Duffield <JPDuffield@gsi-net.com> wrote:

Miguel-

Again, thank you for helping us out in Sophia's absence. I believe there was a miscommunication regarding some additional analyses were requested. For Job number 465695, we had requested the following and I don't believe that we have received this data. I think possibly when I indicated that we wanted to cancel the WET and TCLP that it was interpreted that we wanted to cancel all additional requested tests. Can you please check to see if the additional analyses indicated here were run, and if not, can you please run them on a rush turnaround?

Arsenic analyses on the following samples:

P1-2-1.0

P1-2-4.0

P1-3-2.5

P1-3-4.0

P2-1-1.0

P2-2-2.5

P2-4-2.5

P2-1-4.0

Lead analysis for the following samples:

P2-1-1.0

P2-2-2.5

P2-4-2.5

Mercury analysis for P2-4-2.5.

Please let me know if you have any questions and when we can expect results. Thank you

Jennifer P Duffield, PE *(she/her/hers)*

Senior Associate

GSI Environmental Inc.

O [510.858.0702](tel:510.858.0702) | **C** [510.821.8925](tel:510.821.8925)

Analysis Results for 467345

Jennifer Duffield
 GSI Environmental, Inc.
 155 Grand Ave
 Suite 704
 Oakland, CA 94612

Lab Job #: 467345
 Project No: 6272
 Location: Berkeley Santa Fe Row
 Dates Received: 07/13/22,07/14/22

Sample ID: P3-2-4.0 Lab ID: 467345-001 Collected: 07/14/22 09:05
Matrix: Soil

467345-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Arsenic	6.5		mg/Kg	0.88	0.88	295008	08/13/22	08/15/22	SBW

Sample ID: P3-4-2.5 Lab ID: 467345-002 Collected: 07/14/22 10:10
Matrix: Soil

467345-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Arsenic	47		mg/Kg	0.95	0.95	295008	08/13/22	08/15/22	SBW

Sample ID: P3-4-4.0 Lab ID: 467345-003 Collected: 07/14/22 10:25
Matrix: Soil

467345-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Arsenic	52		mg/Kg	1.0	1	295008	08/13/22	08/15/22	SBW

Sample ID: P4-1-4.0 Lab ID: 467345-004 Collected: 07/14/22 11:25
Matrix: Soil

467345-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Arsenic	4.5		mg/Kg	1.0	1	295008	08/13/22	08/15/22	SBW

Analysis Results for 467345

Sample ID: P4-4-2.5	Lab ID: 467345-005	Collected: 07/14/22 13:35
Matrix: Soil		

467345-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	12		mg/Kg	0.89	0.89	295008	08/13/22	08/15/22	SBW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
2-Methylnaphthalene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Naphthalene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Acenaphthylene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Acenaphthene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Fluorene	ND	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Phenanthrene	46	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Anthracene	13	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Fluoranthene	140	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Pyrene	180	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Benzo(a)anthracene	200	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Chrysene	190	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Benzo(b)fluoranthene	260	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Benzo(k)fluoranthene	270	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Benzo(a)pyrene	390	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Indeno(1,2,3-cd)pyrene	350	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Dibenz(a,h)anthracene	79	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Benzo(g,h,i)perylene	250	H	ug/Kg	10	1	295056	08/15/22	08/17/22	TJW
Surrogates				Limits					
Nitrobenzene-d5	72%	H	%REC	27-125	1	295056	08/15/22	08/17/22	TJW
2-Fluorobiphenyl	71%	H	%REC	30-120	1	295056	08/15/22	08/17/22	TJW
Terphenyl-d14	89%	H	%REC	33-155	1	295056	08/15/22	08/17/22	TJW

Analysis Results for 467345

Sample ID: P4-4-4.0	Lab ID: 467345-006	Collected: 07/14/22 13:40
Matrix: Soil		

467345-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	5.4		mg/Kg	0.97	0.97	295008	08/13/22	08/15/22	SBW
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
2-Methylnaphthalene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Naphthalene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Acenaphthylene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Acenaphthene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Fluorene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Phenanthrene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Anthracene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Fluoranthene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Pyrene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Benzo(a)anthracene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Chrysene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Benzo(b)fluoranthene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Benzo(k)fluoranthene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Benzo(a)pyrene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Indeno(1,2,3-cd)pyrene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Dibenz(a,h)anthracene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Benzo(g,h,i)perylene	ND	H	ug/Kg	9.9	0.99	295056	08/15/22	08/17/22	TJW
Surrogates				Limits					
Nitrobenzene-d5	83%	H	%REC	27-125	0.99	295056	08/15/22	08/17/22	TJW
2-Fluorobiphenyl	77%	H	%REC	30-120	0.99	295056	08/15/22	08/17/22	TJW
Terphenyl-d14	111%	H	%REC	33-155	0.99	295056	08/15/22	08/17/22	TJW

Sample ID: P1-2-1.0	Lab ID: 467345-007	Collected: 07/13/22 10:40
Matrix: Soil		

467345-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	62		mg/Kg	0.93	0.93	295008	08/13/22	08/15/22	SBW

Analysis Results for 467345

Sample ID: P1-2-4.0	Lab ID: 467345-008	Collected: 07/13/22 10:50
	Matrix: Soil	

467345-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	5.7		mg/Kg	1.0	1	295008	08/13/22	08/15/22	SBW

Sample ID: P1-3-2.5	Lab ID: 467345-009	Collected: 07/13/22 11:40
	Matrix: Soil	

467345-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	35		mg/Kg	0.89	0.89	295008	08/13/22	08/15/22	SBW

Sample ID: P1-3-4.0	Lab ID: 467345-010	Collected: 07/13/22 11:55
	Matrix: Soil	

467345-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	10		mg/Kg	1.0	1	295008	08/13/22	08/15/22	SBW

Sample ID: P2-1-1.0	Lab ID: 467345-011	Collected: 07/13/22 13:20
	Matrix: Soil	

467345-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	28		mg/Kg	1.1	1.1	295008	08/13/22	08/15/22	SBW
Lead	210		mg/Kg	1.1	1.1	295008	08/13/22	08/16/22	SBW

Sample ID: P2-2-2.5	Lab ID: 467345-012	Collected: 07/13/22 14:00
	Matrix: Soil	

467345-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	41		mg/Kg	1.0	1	295008	08/13/22	08/15/22	SBW
Lead	10		mg/Kg	1.0	1	295008	08/13/22	08/16/22	SBW

Analysis Results for 467345

Sample ID: P2-4-2.5	Lab ID: 467345-013	Collected: 07/13/22 15:25
	Matrix: Soil	

467345-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	8.9		mg/Kg	0.92	0.92	295008	08/13/22	08/15/22	SBW
Lead	12		mg/Kg	0.92	0.92	295008	08/13/22	08/16/22	SBW
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND	H	mg/Kg	0.16	1.2	295022	08/13/22	08/13/22	TNN

Sample ID: P2-1-4.0	Lab ID: 467345-014	Collected: 07/13/22 13:35
	Matrix: Soil	

467345-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	24		mg/Kg	0.89	0.89	295008	08/13/22	08/15/22	SBW

H Holding time was exceeded
 ND Not Detected

Batch QC

Type: Blank	Lab ID: QC1006508	Batch: 295008
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1006508 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		mg/Kg	1.0	08/13/22	08/15/22
Lead	ND		mg/Kg	1.0	08/13/22	08/15/22

Type: Lab Control Sample	Lab ID: QC1006509	Batch: 295008
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1006509 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	103.9	100.0	mg/Kg	104%		80-120
Lead	101.5	100.0	mg/Kg	101%		80-120

Type: Matrix Spike	Lab ID: QC1006510	Batch: 295008
Matrix (Source ID): Soil (467345-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1006510 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	90.41	6.523	86.96	mg/Kg	96%		75-125	0.87
Lead	89.29	7.595	86.96	mg/Kg	94%		75-125	0.87

Type: Matrix Spike Duplicate	Lab ID: QC1006511	Batch: 295008
Matrix (Source ID): Soil (467345-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1006511 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	94.44	6.523	85.47	mg/Kg	103%		75-125	6	35	0.85
Lead	91.71	7.595	85.47	mg/Kg	98%		75-125	4	20	0.85

Type: Blank	Lab ID: QC1006560	Batch: 295022
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1006560 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	08/13/22	08/13/22

Type: Lab Control Sample	Lab ID: QC1006561	Batch: 295022
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1006561 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.7684	0.8333	mg/Kg	92%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC1006562	Batch: 295022
Matrix (Source ID): Miscell. (467227-021)	Method: EPA 7471A	Prep Method: METHOD

QC1006562 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	1.021	0.08532	0.9804	mg/Kg	95%		75-125	1.2

Type: Matrix Spike Duplicate	Lab ID: QC1006563	Batch: 295022
Matrix (Source ID): Miscell. (467227-021)	Method: EPA 7471A	Prep Method: METHOD

QC1006563 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.9270	0.08532	0.9804	mg/Kg	86%		75-125	10	20	1.2

Type: Matrix Spike	Lab ID: QC1006696	Batch: 295056
Matrix (Source ID): Soil (467345-005)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1006696 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	139.6	ND	201.1	ug/Kg	69%		25-130	1
2-Methylnaphthalene	166.2	ND	201.1	ug/Kg	83%		32-133	1
Naphthalene	156.8	ND	201.1	ug/Kg	78%		33-130	1
Acenaphthylene	159.0	ND	201.1	ug/Kg	79%		14-157	1
Acenaphthene	160.9	4.907	201.1	ug/Kg	78%		28-134	1
Fluorene	168.7	ND	201.1	ug/Kg	84%		27-140	1
Phenanthrene	221.1	45.62	201.1	ug/Kg	87%		29-147	1
Anthracene	160.4	12.81	201.1	ug/Kg	73%		24-156	1
Fluoranthene	278.7	139.4	201.1	ug/Kg	69%		28-160	1
Pyrene	304.7	178.4	201.1	ug/Kg	63%		26-153	1
Benzo(a)anthracene	363.8	200.8	201.1	ug/Kg	81%		26-174	1
Chrysene	311.8	191.6	201.1	ug/Kg	60%		40-139	1
Benzo(b)fluoranthene	447.3	260.4	201.1	ug/Kg	93%		36-164	1
Benzo(k)fluoranthene	394.9	266.3	201.1	ug/Kg	64%		36-161	1
Benzo(a)pyrene	533.0	388.7	201.1	ug/Kg	72%	E	18-173	1
Indeno(1,2,3-cd)pyrene	534.4	347.0	201.1	ug/Kg	93%	E	26-154	1
Dibenz(a,h)anthracene	257.9	79.09	201.1	ug/Kg	89%		38-132	1
Benzo(g,h,i)perylene	392.5	245.6	201.1	ug/Kg	73%		36-130	1
Surrogates								
Nitrobenzene-d5	175.3		201.1	ug/Kg	87%		27-125	1
2-Fluorobiphenyl	160.2		201.1	ug/Kg	80%		30-120	1
Terphenyl-d14	213.3		201.1	ug/Kg	106%		33-155	1

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1006697	Batch: 295056
Matrix (Source ID): Soil (467345-005)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1006697 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	136.1	ND	200.9	ug/Kg	68%		25-130	2	35	1
2-Methylnaphthalene	165.0	ND	200.9	ug/Kg	82%		32-133	1	35	1
Naphthalene	154.6	ND	200.9	ug/Kg	77%		33-130	1	35	1
Acenaphthylene	162.9	ND	200.9	ug/Kg	81%		14-157	3	35	1
Acenaphthene	154.7	4.907	200.9	ug/Kg	75%		28-134	4	35	1
Fluorene	163.5	ND	200.9	ug/Kg	81%		27-140	3	35	1
Phenanthrene	224.3	45.62	200.9	ug/Kg	89%		29-147	2	35	1
Anthracene	160.6	12.81	200.9	ug/Kg	74%		24-156	0	35	1
Fluoranthene	257.8	139.4	200.9	ug/Kg	59%		28-160	8	35	1
Pyrene	277.4	178.4	200.9	ug/Kg	49%		26-153	9	35	1
Benzo(a)anthracene	310.2	200.8	200.9	ug/Kg	54%		26-174	16	35	1
Chrysene	263.4	191.6	200.9	ug/Kg	36%	*	40-139	17	35	1
Benzo(b)fluoranthene	390.0	260.4	200.9	ug/Kg	65%		36-164	14	35	1
Benzo(k)fluoranthene	304.7	266.3	200.9	ug/Kg	19%	*	36-161	26	35	1
Benzo(a)pyrene	416.9	388.7	200.9	ug/Kg	14%	*	18-173		35	1
Indeno(1,2,3-cd)pyrene	431.2	347.0	200.9	ug/Kg	42%		26-154		35	1
Dibenz(a,h)anthracene	226.4	79.09	200.9	ug/Kg	73%		38-132	13	35	1
Benzo(g,h,i)perylene	317.1	245.6	200.9	ug/Kg	36%		36-130	21	35	1
Surrogates										
Nitrobenzene-d5	171.7		200.9	ug/Kg	85%		27-125			1
2-Fluorobiphenyl	153.6		200.9	ug/Kg	76%		30-120			1
Terphenyl-d14	207.8		200.9	ug/Kg	103%		33-155			1

Batch QC

Type: Blank	Lab ID: QC1006698	Batch: 295056
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1006698 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	08/15/22	08/17/22
2-Methylnaphthalene	ND		ug/Kg	10	08/15/22	08/17/22
Naphthalene	ND		ug/Kg	10	08/15/22	08/17/22
Acenaphthylene	ND		ug/Kg	10	08/15/22	08/17/22
Acenaphthene	ND		ug/Kg	10	08/15/22	08/17/22
Fluorene	ND		ug/Kg	10	08/15/22	08/17/22
Phenanthrene	ND		ug/Kg	10	08/15/22	08/17/22
Anthracene	ND		ug/Kg	10	08/15/22	08/17/22
Fluoranthene	ND		ug/Kg	10	08/15/22	08/17/22
Pyrene	ND		ug/Kg	10	08/15/22	08/17/22
Benzo(a)anthracene	ND		ug/Kg	10	08/15/22	08/17/22
Chrysene	ND		ug/Kg	10	08/15/22	08/17/22
Benzo(b)fluoranthene	ND		ug/Kg	10	08/15/22	08/17/22
Benzo(k)fluoranthene	ND		ug/Kg	10	08/15/22	08/17/22
Benzo(a)pyrene	ND		ug/Kg	10	08/15/22	08/17/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	08/15/22	08/17/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	08/15/22	08/17/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	08/15/22	08/17/22
Surrogates				Limits		
Nitrobenzene-d5	80%		%REC	27-125	08/15/22	08/17/22
2-Fluorobiphenyl	80%		%REC	30-120	08/15/22	08/17/22
Terphenyl-d14	115%		%REC	33-155	08/15/22	08/17/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1006699	Batch: 295056
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1006699 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	138.8	200.5	ug/Kg	69%		28-130
2-Methylnaphthalene	165.6	200.5	ug/Kg	83%		33-130
Naphthalene	156.0	200.5	ug/Kg	78%		25-130
Acenaphthylene	160.2	200.5	ug/Kg	80%		28-130
Acenaphthene	152.8	200.5	ug/Kg	76%		32-130
Fluorene	159.6	200.5	ug/Kg	80%		35-130
Phenanthrene	172.5	200.5	ug/Kg	86%		35-132
Anthracene	147.4	200.5	ug/Kg	74%		34-136
Fluoranthene	158.5	200.5	ug/Kg	79%		34-139
Pyrene	155.2	200.5	ug/Kg	77%		35-134
Benzo(a)anthracene	162.1	200.5	ug/Kg	81%		30-132
Chrysene	129.6	200.5	ug/Kg	65%		29-130
Benzo(b)fluoranthene	174.2	200.5	ug/Kg	87%		32-137
Benzo(k)fluoranthene	145.8	200.5	ug/Kg	73%		32-130
Benzo(a)pyrene	144.6	200.5	ug/Kg	72%		10-138
Indeno(1,2,3-cd)pyrene	177.5	200.5	ug/Kg	89%		34-132
Dibenz(a,h)anthracene	168.4	200.5	ug/Kg	84%		32-130
Benzo(g,h,i)perylene	141.1	200.5	ug/Kg	70%		27-130
Surrogates						
Nitrobenzene-d5	174.1	200.5	ug/Kg	87%		27-125
2-Fluorobiphenyl	165.2	200.5	ug/Kg	82%		30-120
Terphenyl-d14	224.4	200.5	ug/Kg	112%		33-155

* Value is outside QC limits
 E Response exceeds instrument's linear range
 ND Not Detected



ENTHALPY
ANALYTICAL

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
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enthalpy.com

Lab Job Number: 468980
Report Level: II
Report Date: 09/21/2022

Analytical Report *prepared for:*

Jennifer Duffield
GSI Environmental, Inc.
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Project: 6272 - Berkeley Santa Fe Row

Authorized for release by:

Sophia Baughman, Project Manager
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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

Jennifer Duffield
GSI Environmental, Inc.
155 Grand Ave
Suite 704
Oakland, CA 94612

Lab Job #: 468980
Project No: 6272
Location: Berkeley Santa Fe Row
Date Received: 07/14/22

Sample ID	Lab ID	Collected	Matrix
P3-1-1.0	468980-001	07/14/22 08:10	Soil
P4-3-1.0	468980-002	07/14/22 12:45	Soil

Case Narrative

GSI Environmental, Inc.
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Suite 704
Oakland, CA 94612
Jennifer Duffield

Lab Job Number: 468980
Project No: 6272
Location: Berkeley Santa Fe Row
Date Received: 07/14/22

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 09/13/22. The samples were received cold and intact.

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

- High RPD was observed for 1-methylnaphthalene in the MS/MSD for batch 297037; the parent sample was not a project sample, and this analyte was not detected at or above the RL in the associated sample.
- 468980-002 was prepared outside of hold time; affected data was qualified with "H".
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- Mercury was analyzed outside of hold time; affected data was qualified with "H".
- No other analytical problems were encountered.



Sophia Baughman <sophia.baughman@enthalpy.com>

[EXTERNAL] Additional Analyses Request for Job #465763

Tiffany R Klitzke <TRKlitzke@gsi-net.com>
To: Sophia Baughman <sophia.baughman@enthalpy.com>
Cc: Jennifer P Duffield <JPDuffield@gsi-net.com>

Tue, Sep 13, 2022 at 9:58 AM

Hi Sophia,

We'd like to request additional analyses for two samples from Job #465763.

Will you please run sample P3-1-1.0 (Lab Sample ID 465763-001) for arsenic, lead, and mercury?

We'd also like to run sample P4-3-1.0 (Lab Sample ID 465763-019) for arsenic, lead, mercury, and PAHs. We understand this sample is past the hold time for PAHs. We would still like to proceed with the analysis.

Given the lab's current workload, how quickly do you think we could see these results? Somewhere in the 3-5 day range would be ideal for us if that works for Enthalpy.

Thank you!

Tiffany R Klitzke

Senior Scientist



GSI Environmental Inc.

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Analysis Results for 468980

Jennifer Duffield
 GSI Environmental, Inc.
 155 Grand Ave
 Suite 704
 Oakland, CA 94612

Lab Job #: 468980
 Project No: 6272
 Location: Berkeley Santa Fe Row
 Date Received: 07/14/22

Sample ID: P3-1-1.0 Lab ID: 468980-001 Collected: 07/14/22 08:10
Matrix: Soil

468980-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	63		mg/Kg	0.97	0.97	297018	09/15/22	09/15/22	KLN
Lead	15		mg/Kg	0.97	0.97	297018	09/15/22	09/15/22	KLN
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND	H	mg/Kg	0.15	1.1	297047	09/15/22	09/15/22	ECM

Analysis Results for 468980

Sample ID: P4-3-1.0	Lab ID: 468980-002	Collected: 07/14/22 12:45
Matrix: Soil		

468980-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B									
Prep Method: EPA 3050B									
Arsenic	29		mg/Kg	0.96	0.96	297018	09/15/22	09/15/22	KLN
Lead	22		mg/Kg	0.96	0.96	297018	09/15/22	09/15/22	KLN
Method: EPA 7471A									
Prep Method: METHOD									
Mercury	ND	H	mg/Kg	0.16	1.2	297047	09/15/22	09/15/22	ECM
Method: EPA 8270C-SIM									
Prep Method: EPA 3546									
1-Methylnaphthalene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
2-Methylnaphthalene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Naphthalene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Acenaphthylene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Acenaphthene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Fluorene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Phenanthrene	19	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Anthracene	14	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Fluoranthene	40	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Pyrene	48	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Benzo(a)anthracene	36	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Chrysene	45	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Benzo(b)fluoranthene	42	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Benzo(k)fluoranthene	47	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Benzo(a)pyrene	66	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Indeno(1,2,3-cd)pyrene	39	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Dibenz(a,h)anthracene	ND	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Benzo(g,h,i)perylene	36	H	ug/Kg	10	1	297037	09/15/22	09/16/22	HQN
Surrogates				Limits					
Nitrobenzene-d5	82%	H	%REC	27-125	1	297037	09/15/22	09/16/22	HQN
2-Fluorobiphenyl	63%	H	%REC	30-120	1	297037	09/15/22	09/16/22	HQN
Terphenyl-d14	82%	H	%REC	33-155	1	297037	09/15/22	09/16/22	HQN

H Holding time was exceeded
 ND Not Detected

Batch QC

Type: Blank	Lab ID: QC1013037	Batch: 297018
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1013037 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		mg/Kg	1.0	09/15/22	09/15/22
Lead	ND		mg/Kg	1.0	09/15/22	09/15/22

Type: Lab Control Sample	Lab ID: QC1013038	Batch: 297018
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1013038 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	104.9	100.0	mg/Kg	105%		80-120
Lead	109.6	100.0	mg/Kg	110%		80-120

Type: Matrix Spike	Lab ID: QC1013039	Batch: 297018
Matrix (Source ID): Soil (468897-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1013039 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	96.23	2.920	96.15	mg/Kg	97%		75-125	0.96
Lead	107.6	5.690	96.15	mg/Kg	106%		75-125	0.96

Type: Matrix Spike Duplicate	Lab ID: QC1013040	Batch: 297018
Matrix (Source ID): Soil (468897-001)	Method: EPA 6010B	Prep Method: EPA 3050B

QC1013040 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	101.0	2.920	96.15	mg/Kg	102%		75-125	5	35	0.96
Lead	112.1	5.690	96.15	mg/Kg	111%		75-125	4	20	0.96

Type: Blank	Lab ID: QC1013145	Batch: 297047
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1013145 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	09/15/22	09/15/22

Type: Lab Control Sample	Lab ID: QC1013146	Batch: 297047
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1013146 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8098	0.8333	mg/Kg	97%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC1013149	Batch: 297047
Matrix (Source ID): Soil (468897-001)	Method: EPA 7471A	Prep Method: METHOD

QC1013149 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8980	0.02437	0.9091	mg/Kg	96%		75-125	1.1

Type: Matrix Spike Duplicate	Lab ID: QC1013150	Batch: 297047
Matrix (Source ID): Soil (468897-001)	Method: EPA 7471A	Prep Method: METHOD

QC1013150 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Mercury	0.9003	0.02437	0.9091	mg/Kg	96%		75-125	0	20	1.1

Type: Blank	Lab ID: QC1013306	Batch: 297037
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1013306 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	9.9	09/15/22	09/16/22
2-Methylnaphthalene	ND		ug/Kg	9.9	09/15/22	09/16/22
Naphthalene	ND		ug/Kg	9.9	09/15/22	09/16/22
Acenaphthylene	ND		ug/Kg	9.9	09/15/22	09/16/22
Acenaphthene	ND		ug/Kg	9.9	09/15/22	09/16/22
Fluorene	ND		ug/Kg	9.9	09/15/22	09/16/22
Phenanthrene	ND		ug/Kg	9.9	09/15/22	09/16/22
Anthracene	ND		ug/Kg	9.9	09/15/22	09/16/22
Fluoranthene	ND		ug/Kg	9.9	09/15/22	09/16/22
Pyrene	ND		ug/Kg	9.9	09/15/22	09/16/22
Benzo(a)anthracene	ND		ug/Kg	9.9	09/15/22	09/16/22
Chrysene	ND		ug/Kg	9.9	09/15/22	09/16/22
Benzo(b)fluoranthene	ND		ug/Kg	9.9	09/15/22	09/16/22
Benzo(k)fluoranthene	ND		ug/Kg	9.9	09/15/22	09/16/22
Benzo(a)pyrene	ND		ug/Kg	9.9	09/15/22	09/16/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	09/15/22	09/16/22
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	09/15/22	09/16/22
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	09/15/22	09/16/22
Surrogates				Limits		
Nitrobenzene-d5	91%		%REC	27-125	09/15/22	09/16/22
2-Fluorobiphenyl	68%		%REC	30-120	09/15/22	09/16/22
Terphenyl-d14	91%		%REC	33-155	09/15/22	09/16/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1013307	Batch: 297037
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1013307 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	138.3	200.5	ug/Kg	69%		28-130
2-Methylnaphthalene	150.1	200.5	ug/Kg	75%		33-130
Naphthalene	148.6	200.5	ug/Kg	74%		25-130
Acenaphthylene	160.7	200.5	ug/Kg	80%		28-130
Acenaphthene	152.3	200.5	ug/Kg	76%		32-130
Fluorene	156.6	200.5	ug/Kg	78%		35-130
Phenanthrene	159.0	200.5	ug/Kg	79%		35-132
Anthracene	159.8	200.5	ug/Kg	80%		34-136
Fluoranthene	156.8	200.5	ug/Kg	78%		34-139
Pyrene	148.1	200.5	ug/Kg	74%		35-134
Benzo(a)anthracene	179.8	200.5	ug/Kg	90%		30-132
Chrysene	155.4	200.5	ug/Kg	78%		29-130
Benzo(b)fluoranthene	172.0	200.5	ug/Kg	86%		32-137
Benzo(k)fluoranthene	173.5	200.5	ug/Kg	87%		32-130
Benzo(a)pyrene	174.4	200.5	ug/Kg	87%		10-138
Indeno(1,2,3-cd)pyrene	151.8	200.5	ug/Kg	76%		34-132
Dibenz(a,h)anthracene	138.0	200.5	ug/Kg	69%		32-130
Benzo(g,h,i)perylene	126.3	200.5	ug/Kg	63%		27-130
Surrogates						
Nitrobenzene-d5	184.1	200.5	ug/Kg	92%		27-125
2-Fluorobiphenyl	144.9	200.5	ug/Kg	72%		30-120
Terphenyl-d14	181.1	200.5	ug/Kg	90%		33-155

Batch QC

Type: Matrix Spike	Lab ID: QC1013308	Batch: 297037
Matrix (Source ID): Soil (468937-001)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1013308 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	123.5	ND	201.0	ug/Kg	61%		25-130	5
2-Methylnaphthalene	137.8	ND	201.0	ug/Kg	69%		32-133	5
Naphthalene	134.4	ND	201.0	ug/Kg	67%		33-130	5
Acenaphthylene	135.5	ND	201.0	ug/Kg	67%		14-157	5
Acenaphthene	136.4	ND	201.0	ug/Kg	68%		28-134	5
Fluorene	137.2	ND	201.0	ug/Kg	68%		27-140	5
Phenanthrene	144.0	40.06	201.0	ug/Kg	52%		29-147	5
Anthracene	147.4	ND	201.0	ug/Kg	73%		24-156	5
Fluoranthene	153.7	82.80	201.0	ug/Kg	35%		28-160	5
Pyrene	144.3	64.38	201.0	ug/Kg	40%		26-153	5
Benzo(a)anthracene	170.4	38.61	201.0	ug/Kg	66%		26-174	5
Chrysene	147.0	32.67	201.0	ug/Kg	57%		40-139	5
Benzo(b)fluoranthene	164.0	24.54	201.0	ug/Kg	69%		36-164	5
Benzo(k)fluoranthene	165.5	24.86	201.0	ug/Kg	70%		36-161	5
Benzo(a)pyrene	167.2	35.02	201.0	ug/Kg	66%		18-173	5
Indeno(1,2,3-cd)pyrene	132.1	15.02	201.0	ug/Kg	58%		26-154	5
Dibenz(a,h)anthracene	114.2	ND	201.0	ug/Kg	57%		38-132	5
Benzo(g,h,i)perylene	110.6	14.35	201.0	ug/Kg	48%		36-130	5
Surrogates								
Nitrobenzene-d5	152.9		201.0	ug/Kg	76%		27-125	5
2-Fluorobiphenyl	121.5		201.0	ug/Kg	60%		30-120	5
Terphenyl-d14	160.0		201.0	ug/Kg	80%		33-155	5

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1013309	Batch: 297037
Matrix (Source ID): Soil (468937-001)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC1013309 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	62.47	ND	200.4	ug/Kg	31%		25-130	65*	35	5
2-Methylnaphthalene	113.3	ND	200.4	ug/Kg	57%		32-133	19	35	5
Naphthalene	124.1	ND	200.4	ug/Kg	62%		33-130	8	35	5
Acenaphthylene	131.9	ND	200.4	ug/Kg	66%		14-157	2	35	5
Acenaphthene	136.5	ND	200.4	ug/Kg	68%		28-134	0	35	5
Fluorene	137.4	ND	200.4	ug/Kg	69%		27-140	0	35	5
Phenanthrene	147.2	40.06	200.4	ug/Kg	53%		29-147	2	35	5
Anthracene	152.3	ND	200.4	ug/Kg	76%		24-156	4	35	5
Fluoranthene	157.0	82.80	200.4	ug/Kg	37%		28-160	2	35	5
Pyrene	150.0	64.38	200.4	ug/Kg	43%		26-153	4	35	5
Benzo(a)anthracene	172.0	38.61	200.4	ug/Kg	67%		26-174	1	35	5
Chrysene	147.9	32.67	200.4	ug/Kg	58%		40-139	1	35	5
Benzo(b)fluoranthene	154.8	24.54	200.4	ug/Kg	65%		36-164	6	35	5
Benzo(k)fluoranthene	155.7	24.86	200.4	ug/Kg	65%		36-161	6	35	5
Benzo(a)pyrene	171.3	35.02	200.4	ug/Kg	68%		18-173	3	35	5
Indeno(1,2,3-cd)pyrene	126.4	15.02	200.4	ug/Kg	56%		26-154	4	35	5
Dibenz(a,h)anthracene	104.0	ND	200.4	ug/Kg	52%		38-132	9	35	5
Benzo(g,h,i)perylene	112.0	14.35	200.4	ug/Kg	49%		36-130	2	35	5
Surrogates										
Nitrobenzene-d5	152.5		200.4	ug/Kg	76%		27-125			5
2-Fluorobiphenyl	116.8		200.4	ug/Kg	58%		30-120			5
Terphenyl-d14	164.8		200.4	ug/Kg	82%		33-155			5

* Value is outside QC limits

ND Not Detected

**SANTA FE RIGHT-OF-WAY PHASE II ENVIRONMENTAL SITE ASSESSMENT-
REPORT OF FINDINGS**
Historic Santa Fe Right-of-Way
Berkeley, California

ATTACHMENT C

Data Quality Summary

ATTACHMENT C
DATA QUALITY SUMMARY
Santa Fe Railroad ROW
Berkeley, California

The field sampling and analytical data were reviewed to determine the data usability in accordance with guidelines published by USEPA:

- *National Functional Guidelines for Inorganic Superfund Methods Data Review*¹
- *National Functional Guidelines for Organic Superfund Methods Data Review*²

The data usability evaluation included a review of surrogate recovery results, laboratory blank sample results, matrix spike (MS) and matrix spike duplicate (MSD) results, laboratory control sample results and laboratory calibration standards. Data quality issues that resulted in qualification of the data are summarized herein.

As described below, three types of data qualifiers were issued to select data, as follows:

- C indicates that the difference between two detectors at the laboratory exceeded a Relative Percent Difference (RPD) of greater than 40%.
- J indicates the detected result is estimated.
- UJ indicates the non-detected result is estimated.
- R indicates that the data was rejected.

Metals by Method 6010B, Method 7471A and Method 6020:

Non-detected mercury results from samples P2-4-2.5, P3-1-1.0 and P4-3-1.0 were rejected because the analytical holding time was exceeded.

The non-detected antimony result from sample P3-2-2.5 was rejected because the associated MS percent recovery (%R) was less than 30 percent (%) and the MSD %R was less than 75%.

The non-detected antimony result from sample P3-3-2.5 was issued a “UJ” qualifier because the associated MS %R is between 30-74% and the MSD %R was less than 75%.

PAHs by Method 8270C-SIM:

Detected PAH results from samples P4-3-1.0 and P4-4-2.5 were qualified with a “J” and non-detected PAH results for these samples were rejected because the analytical holding time was exceeded. The non-detected PAH results from sample P4-4-4.0 also were rejected because the analytical holding time was exceeded.

Pesticides by Method 8010A:

Detected 4,4'-DDE results from sample P3-2-1.0 was qualified by the laboratory with a “C” because the difference between two detectors at the laboratory exceeded a RPD of greater than 40%. An additional “J” flag was issued to this result because it should be considered an estimated value.

¹ USEPA, 2020, National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 542-R-20-006), November.

² USEPA, 2020, National Functional Guidelines for Organic Superfund Methods Data Review (EPA 540-R-20-005), November.

Overall, the soil sample analytical results were found to be compliant with the data objectives for the project and are considered usable for determining the character of the Site. Based on some qualifiers, select data may not be suitable for use in a formal risk assessment.