May 20, 2023
RRM Project # IMK808

Heather Hanna
County of Santa Cruz Health Services Agency
Environmental Health Division, Environmental Cleanup Program
701 Ocean Street, Room 312
Santa Cruz, CA 95060

Re: ***Supplemental Site Investigation Results***
Lower Main Meadow, Pogonip Open Space
501 Golf Club Drive
Santa Cruz, California 95060
Geotracker Global ID T10000018646

Dear Ms. Hanna:

This letter, prepared by RRM, Inc. (RRM), on behalf of the City of Santa Cruz Parks and Recreation Department (the City), presents a work plan to conduct supplemental site and surface water investigation for the referenced site (Figure 1). The County of Santa Cruz Environmental Health Division (CSCEHD) requested preparation of this document in an August 30, 2022 letter; the letter was issued in response to the August 24, 2022 *Revised Additional Soil Investigation Report and Human Health Screening Evaluation* prepared for the site by RMD Environmental Solutions (RMD). A brief background is presented below, followed by a description of the proposed scope of work.

BACKGROUND

The site is located in the Pogonip Open Space Preserve. The City leased approximately 9.5 acres in the lower meadow area of the preserve to the Homeless Garden Project (HGP), a non-profit organization, for conversion from recreational and natural open space to an agricultural and educational farm. While HPG was moving forward with the approved farm use, a historic skeet shooting use was discovered at the site and a November 19, 2019 *Phase I Environmental Site Assessment* identified the operation of a skeet and trap shooting range between the 1930s and 1950s with confirmed elevated lead and polycyclic aromatic hydrocarbons (PAHs) concentrations in shallow soil from shot and clay target deposition in soil.

A series of investigations completed from 2018 to 2022 found PAHs and select metals, primarily lead, in soil in proposed areas of use for the site. The investigations found the extent of other reported metals (antimony, arsenic, copper, and zinc) in soil to be delineated to the localized area of one soil sample in the west meadow (WM-DG-13-1.5') and do not constitute a significant release.

However, lead and PAHs have been identified as the contaminants of potential concern (COPCs) for the site, as elevated lead concentrations in soil have been reported in the west meadow, north orchard and east meadow areas; and elevated PAH concentrations in soil have been reported in the west meadow area (Figure 2). Attachment A includes figures with soil sample locations, and lead and PAH soil analytical data summarized in tables. Potential receptors for the site have been identified as unrestricted, commercial worker, recreational trail user, and unauthorized camper. Screening levels (SLs) for lead and PAHs in soil consistent with these receptors have been developed and are also presented in the tables in Attachment A.

Previous reports prepared for the site can be reviewed on the DTSC EnviroStor website (Database Number 60002874): https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002874, and at the State Water Resources Control Board GeoTracker website (Global ID T10000018646): https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000018646.

Lead and PAHs associated with the historic shooting range activities have been identified and adequately delineated to the recreational trail user soil SLs. CSCEHD has required further delineation for lead and PAHs in areas where concentrations are above the unrestricted soil SLs and investigation of the seasonal surface water.

SCOPE OF WORK

RMD identified the following areas where lead concentrations in soil are not delineated to unrestricted receptor use SLs:

- Emma McCrary Trail Area, southeast of Boring T-5 and southwest of Boring T-7
- West Meadow Area, west of Boring WM-17

RMD identified the following area where PAH concentrations in soil are not delineated to unrestricted receptor use SLs:

- West Meadow Area, east of Boring WM-C-11

The scope of work further characterized the extent of lead and PAH concentrations above unrestricted receptor use soil SLs in the areas identified above, collected soil analytical data for development of a preliminary profile for soil disposal, investigated the presence of surface water at the site, and provided a preliminary characterization of surface water flowing through the site.

Pre-Field Activities

Prior to the start of work, RRM prepared a site-specific health and safety plan (SSHSP) for the proposed work; the SSHSP was reviewed and signed by all field personnel and kept on site for the duration of the project. All RRM personnel involved in conducting the field activities have satisfied the requirements of the Federal Occupational Safety and Health Administration (OSHA) 40-Hour Hazardous Waste Operations and Emergency Response Training.

Surface and Shallow Soil Sampling for Unrestricted Receptor Delineation

To further characterize the extent of lead and PAH concentrations, soil samples were collected from hand auger borings advanced to a total depth of approximately 2 feet below ground surface (bgs). The lithology, moisture content, and color of the soil along with the presence of any shot fragments were noted at each boring location. Two soil samples were collected from each boring; one "surface" sample from approximately ground surface to 6 inches bgs and one "shallow" sample from approximately 1.5 to 2 feet bgs. Soil samples were obtained by advancing the auger to the target depths and a clean brass sleeve was driven to the target sample depth. The samples were labeled and stored in a chilled cooler for transportation under chain-of-custody procedures to a California-certified analytical laboratory. The sampling equipment was decontaminated between uses using non-phosphate detergent and clean water.

The boring locations for delineation are shown on Figure 2 and described below with the laboratory analysis for the soil samples from each area.

- RRM-1 through RRM-3 - West Meadow Area, west of Sample Location WM-17: Three borings to the northwest, west, and southwest of WM-17; soil samples were analyzed for lead on a dry weight basis using EPA Method 6020.
- RRM-4 through RRM-6 - West Meadow Area, east of Sample Location WM-C-11: Three borings to the northeast, east, and southeast of WM-C-11; soil samples were analyzed for PAHs using EPA Method 8270C SIM.
- RRM-7 through RRM-9 - Emma McCrary Trail Area, southwest of Sample Location T-7: Three borings to the south, southwest, and west of T-7; soil samples were analyzed for lead on a dry weight basis using EPA Method 6020.
- RRM-10 through RRM-12 - Emma McCrary Trail Area, southeast of Sample Location T-5: Three borings to the southeast, south and southwest of T-5; soil samples were analyzed for lead on a dry weight basis using EPA Method 6020.

Soil Sampling for Soil Disposal Profiling

To develop a preliminary soil disposal profile, soil samples were collected from hand auger borings advanced to a total depth of approximately 2 feet bgs. Two soil samples were collected from each boring; one sample from approximately ground surface to 6 inches bgs and one sample from approximately 1.5 to 2 feet bgs. Soil samples were obtained from each boring as described above.

The boring locations for soil disposal profiling are shown on Figure 2. The analytical data from the borings are intended to characterize the highest concentrations of lead in soil for the removal area where they are located. For each area described below four borings were advanced; the samples from approximately 0-6 inches bgs were composited into one sample and the samples from approximately 1.5-2 feet bgs were composited into one sample. The composite samples were analyzed for CAM 17 metals using EPA Methods 6010B/7471A and STLC analysis for lead.

- East Meadow Area, in the vicinity of sample locations EM-7 through EM-11 and EM-21
- North Orchard Area, in the vicinity of sample locations NO-1, NO-3, WM-C-3, and WM-C-4

- West Meadow Area, in the vicinity of sample location WM-DG-13
- West Meadow Area, in the vicinity of sample locations B1E, B1N, WM-C-1, and WM-DG-1

Surface Water Investigation and Sampling

Seasonal wetlands occur where water saturates the ground for varying periods of time during the year and can be dry outside of the wet season. A potential 0.08-acre seasonal wetland has been identified in the northern portion of the west meadow.

For investigation and surface water sampling, the wetland was visited at a time during the wet season when surface water is most likely to be present. During several visits in March 2023, after two months of exceptional rainfall and immediately after storms, there was no visible standing water in the area identified as a potential wetland. There were no depressions or surface features that would allow standing water to accumulate observed within the area. Since standing water was not present, a soil sample was collected from 0-6 inches bgs in accordance with the methods described above and analyzed for CAM 17 metals using EPA Methods 6010B/7471A and PAHs using EPA Method 8270C SIM

Stream Sampling

A seasonal stream is intermittently present within the ravine area and flows generally west to east across the site. Grab samples of the surface water were collected from three accessible areas of the stream. A clean intermediate container was used to fill the sample containers. The intermediate container was lowered beneath the water surface and allowed to fill, avoiding surface debris and minimizing agitation. The filled intermediate container was then used to fill the sample containers. Surface water samples were analyzed for dissolved metals using EPA Method 6010B/7471A and PAHs using EPA Method 8270C SIM.

RESULTS

Surface and Shallow Soil Delineation

Surface and shallow soil results for lead are included in Table 1; sample locations are shown on Figure 2; certified analytical reports are included in Attachment B.

West Meadow Area: The area to the west of WM-17 was characterized by samples from RRM-1 through RRM-3. The maximum detection of lead in surficial/shallow samples was 25 mk/kg and the maximum concentration of lead in deeper samples was 6.7 mg/kg. All detections were below the unrestricted SL of 80 mg/kg.

West Meadow Area: The area east of Sample Location WM-C-11 was characterized by samples from RRM-4 through RRM-6. The maximum detection of lead in surficial/shallow samples was 38 mk/kg and the maximum concentration of lead in deeper samples was 8.3 mg/kg. All detections were below the unrestricted SL of 80 mg/kg.

Emma McCrary Trail Area: The area southwest of Sample Location T-7 was characterized by samples from RRM-7 through RRM-9. Lead was detected in shallow soil at concentrations of 160

mg/kg, 45 mg/kg, and 120 mg/kg. Lead was detected in deeper soil samples at concentrations of 8.2 mg/kg and 16 mg/kg. A deeper sample was not obtained at RRM-9 due the presence of water. Only the shallow samples from RRM-7 and RRM-9 exceed the unrestricted soil SL, but were lower than the commercial worker and trail use SLs. Both deeper samples were below the unrestricted use SL.

Emma McCrary Trail Area: The area southeast of Sample Location T-5 was characterized by samples RRM-10 through RRM-12. Lead was detected above the unrestricted use SL, but below the commercial worker and trail use SLs, at concentrations of 190 mg/kg/ 160 mg/kg, and 130 mg/kg, respectively. Lead was detected in the deeper samples at a maximum concentration of 36 mg/kg, below all SLs.

Wetland Sediment Sampling

Wetland sediment sampling results are included in Table 2; sample locations are shown on Figure 2; certified analytical reports are included in Attachment B.

The sediment sample collected from 0-0.5 ft bgs in the wetlands area contained lead at a concentration of 51 mg/kg, below all site SLs. The only metal detected above site SLs was arsenic at a concentration of 2.8 mg/kg (the unrestricted use and commercial worker SLs are 0.11 and 0.36 mg/kg, respectively). While the arsenic concentration is above the SLs, it is within published regional values for background arsenic concentrations.[1]

The sample was also analyzed for PAHs. The only PAH detected above the unrestricted SL was Dibenzo[a,h]anthracene at a concentration of 0.075 mg/kg which is below the commercial worker SL of 0.31 mg/kg and the trail use SL of 1 mg/kg. All PAH detection limits were lower than the unrestricted use SL.

Ravine Water Sampling

Ravine water sampling results are included in Table 3; sample locations are shown on Figure 2; certified analytical reports are included in Attachment B.

Water was observed flowing through a perennial stream within the ravine during the sampling period. Surface water appeared to begin several yards west of RV-1, flow generally west to east through the ravine, and flow into another perennial stream flowing south to north along the eastern property boundary. Sample RV-1 was located at the western edge of the ravine where surface water was first apparent, RV-2 was locate within the ravine, and RV-3 was located at the western edge of the ravine where it crosses Emma McCrary trail. Concentrations were compared to California maximum contaminant levels (MCLs) and the aquatic habitat environmental screening level (ESL).[2]

Lead was detected in samples RV-1 through RV-3 at concentrations of 10, 20, and 16 ug/l, respectively. These are all above the aquatic habitat ESL of 2.5 ug/l, and two of the samples are above the MCL of 15 ug/l. While concentrations vary between the three samples, they are generally low and there is no discernable gradient as water moves through the ravine.

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[1] Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California, *Background Concentrations of Trace and Major Elements in California Soils*, March 1996

[2] San Francisco Bay Regional Water Quality Control Board, *Environmental Screening Levels*, January 2019.

Cadmium and mercury were also detected above the aquatic habitat ESL (but not the MCL). Cadmium was detected above the ESL at concentrations of 0.25 and 0.53 ug/l from RV-2 and RV-3, respectively. Mercury was detected above the ESL at a concentration of 0.15 ug/l at RV-1. Cadmium and Mercury are not previously identified contaminants of potential concern (COPC)[3] and do not appear related to historical uses at the site.

Soil Disposal Profile Sampling

Composite soil samples were collected from four areas of the site as described in the previous section. Soil disposal profiling sampling results are included in Table 4; sample locations are shown on Figure 2; certified analytical reports are included in Attachment B. Composite sample results were generally consistent with historical results from the respective areas but were not compared to any SLs. The composite samples are intended only for future remediation planning use.

CONCLUSIONS AND RECOMMENDATIONS

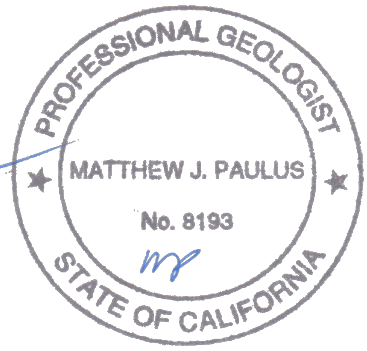
Based on results of this and previous investigations:

- The West Meadow, North Orchard, and East Meadow areas are all delineated to below the unrestricted use SL. No further investigation is necessary.
- The Emma McCrary trail area is not delineated to unrestricted use. However, this area is slated for permanent trail and open space use and is delineated to well below trail user and commercial worker SLs, so no further delineation is necessary.
- Arsenic is present in the wetlands soil sample above screening levels, but the concentration is consistent with regional and State-wide background concentrations.
- Lead is present in all three ravine water samples and is likely the result of drainage from the West Meadow, North Orchard, and East Meadow areas.
- Cadmium and mercury, while detected in ravine water samples, are not CPOCs for the site and is likely the result of leaching from naturally occurring deposits.
- Future remediation will significantly reduce the amount of potentially contaminated runoff flowing into the ravine and will improve stream water quality. Water in the ravine area should be resampled once the remediation efforts are complete.

[3] RMD Environmental Solutions, *Revised Additional Soil Investigation Report and Human Health Screening Evaluation*, August 2022

Should you have any questions regarding the contents of this document, please call RRM at (831) 475-8141.

Sincerely,
RRM, Inc.



Matthew Paulus
Project Geologist
PG 8193

Attachments:

Table 1	Soil Sample Results - Lead
Table 2	Wetlands Area Sediment Sample Results
Table 3	Ravine Surface Water Sample Results
Table 4	Soil Profile Sample Results
Figure 1	Site Location Map
Figure 2	Extended Site Map
Attachment A	Previous Soil Analytical Tables
Attachment B	Certified Analytical Reports and Field Data

Table 1
Soil Sample Results

Pogonip Farm and Garden
Santa Cruz, California

Sample	Date	Depth ft bgs	Lead (TTLC) mg/kg
RRM-1	3/3/23	0.5	10
		2	6.0
RRM-2	3/3/23	0.5	25
		2	6.7
RRM-3	3/3/23	0.5	21
		2	4.4
RRM-4	3/3/23	0.5	20
		2	5.2
RRM-5	3/3/23	0.5	38
		2	7.9
RRM-6	3/3/23	0.5	38
		2	8.3
RRM-7	3/3/23	0.5	160
		2	8.2
RRM-8	3/3/23	0.5	45
		2	16
RRM-9	3/3/23	0.5	160
		2	na
RRM-10	3/3/23	0.5	190
		2	7.1
(Duplicate)		2	23
RRM-11	3/3/23	0.5	160
		2	36
RRM-12	3/3/23	0.5	130
		2	6.5

Screening Levels:	
Unrestricted	80
Commercial Worker	320
Recreational Trail User	540

TTLC Total Threshold Limit Concentration
ft bgs feet below ground surface
mg/kg milligrams per kilogram
* all sample results reported on a dry weight basis
exceeds unrestricted use screening level

Table 2
Wetlands Area Sediment Sample Results

Pogonip Farm and Garden
Santa Cruz, California

	WTL-1	Screening Levels		
		Unrestricted	Commercial Worker	Recreational Trail User
CAM17 Metals, mg/kg				
		31	470	--
		0.11	0.36	--
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		3,100	47,000	--
		80	320	540
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		--	--	--
		23,000	350,000	--
PAHs, mg/kg				
		3,300	23,000	23,000
		--	--	--
		17,000	130,000	120,000
		1.1	12	45
		1.1	13	45
		11	130	450
		0.11	13	5
		--	--	--
		110	1,300	4,500
		0.028	0.31	1
		2,400	18,000	--
		2,300	17,000	15,000
		1.1	13	45
		2.0	6.5	34
		--	--	--
		1,800	13,000	12,000

ft bgs feet below ground surface
mg/kg milligrams per kilogram
* all sample results reported on a dry weight basis
exceeds unrestricted use screening level

Table 3
Ravine Surface Water Sample Results

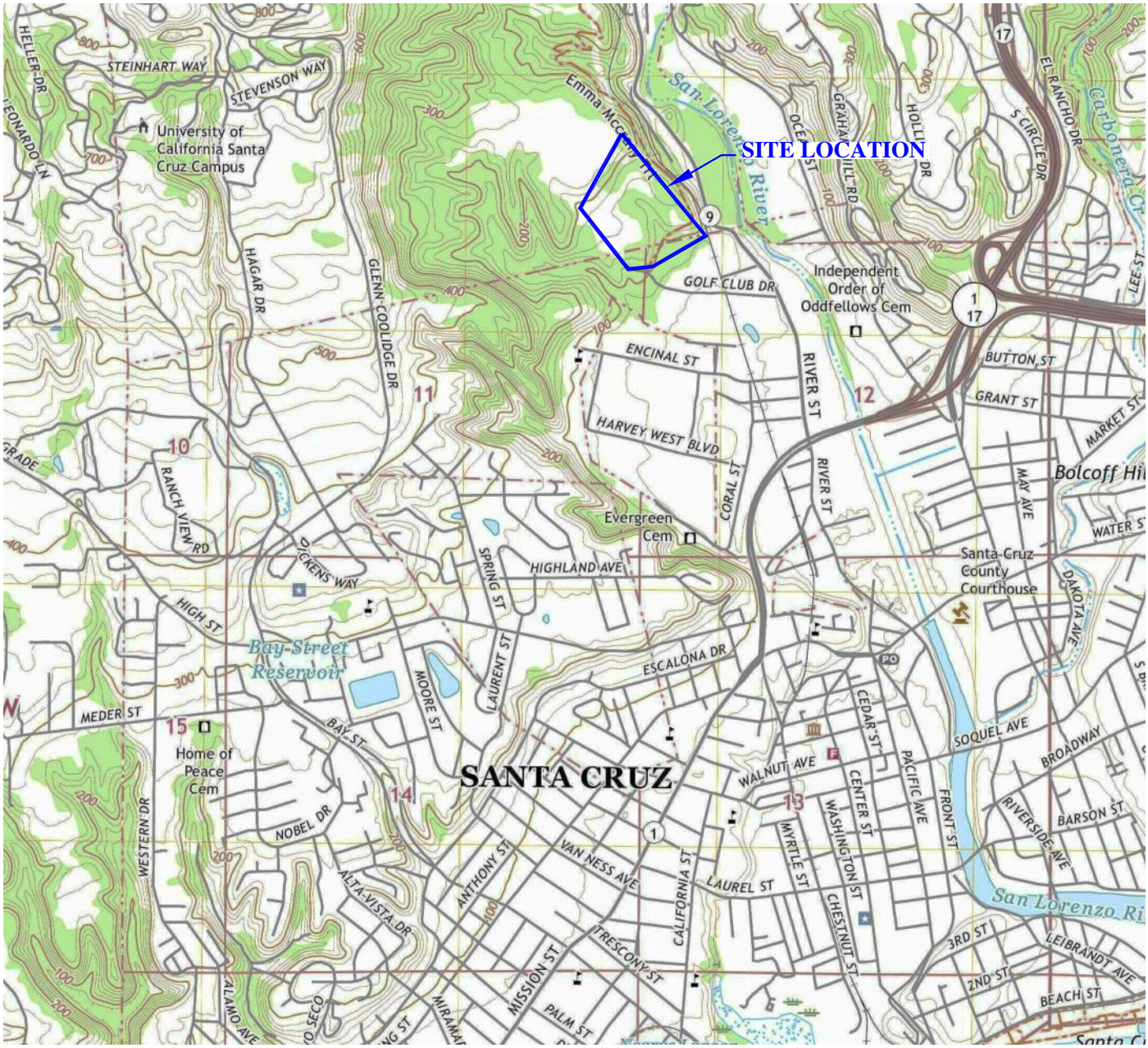
Pogonip Farm and Garden
Santa Cruz, California

Sample:	RV-1	RV-2	RV-3	Screening Levels	
Date:	3/3/23	3/3/23	3/3/23	MCL Priority	Aquatic Habitat
CAM17 Metals, ug/L (Dissolved)					
Antimony	1.6	2.6	2.3	6.0	30.0
Arsenic	0.69	0.66	0.83	10	150
Barium	33	29	32	1,000	--
Beryllium	0.062	0.073	0.062	4.0	2.7
Cadmium	0.099	0.25	0.53	5.0	0.25
Chromium	0.71	0.56	0.62	50	180
Cobalt	0.18	0.17	1.0	6.0	3.0
Copper	1.6	1.9	2.1	1,000	9
Lead	10	20	16	15	2.5
Mercury	0.15	<0.022	<0.022	2.0	0.0250
Molybdenum	0.041	0.042	<0.033	100	240
Nickel	1.2	1.1	1.2	100	52
Selenium	<1.2	<1.2	<1.2	50	5
Silver	<0.015	<0.015	<0.015	100	3.4
Thallium	<0.025	<0.025	<0.025	2.0	20
Vanadium	0.93	0.95	0.91	--	--
Zinc	8.2	8.2	20	5,000	81
PAHs, ug/L					
Acenaphthene	<0.016	<0.016	<0.016	530	23
Acenaphthylene	<0.018	<0.018	<0.018	--	--
Anthracene	<0.045	<0.045	<0.045	1,800	0.73
Benzo[a]anthracene	<0.020	<0.020	<0.020	0.017	0.027
Benzo[b]fluoranthene	<0.040	<0.040	<0.040	0.25	15
Benzo[k]fluoranthene	<0.044	<0.044	<0.044	2.5	3.7
Benzo[a]pyrene	<0.032	<0.032	<0.032	0.2	0.014
Benzo[g,h,i]perylene	<0.048	<0.048	<0.048	--	--
Chrysene	<0.017	<0.017	<0.017	25	0.35
ibenzo[a,h]anthracene	<0.031	<0.031	<0.031	0.025	7.5
Fluoranthene	<0.019	<0.019	<0.019	800	8.1
Fluorene	<0.019	<0.019	<0.019	290	3.9
ndeno[1,2,3-cd]pyrene	<0.025	<0.025	<0.025	0.25	--
Naphthalene	<0.016	<0.016	<0.016	0.71	24
Phenanthrene	<0.017	<0.017	<0.017	--	6.3
Pyrene	<0.024	<0.024	<0.024	120	2.0

Table 4
Soil Profile Sample Results

Pogonip Farm and Garden
Santa Cruz, California

Sample: Date: Depth:	Composite LSP-1, LSP-2, LSP-3, LSP-4 3/8/23 0.5 ft bgs	Composite LSP-1, LSP-2, LSP-3, LSP-4 3/8/23 2.0 ft bgs	Composite LSP-5, LSP-6, LSP-7, LSP-8 3/8/23 0.5 ft bgs	Composite LSP-5, LSP-6, LSP-7, LSP-8 3/8/23 2.0 ft bgs	Composite LSP-9, LSP-10, LSP-11, LSP-12 3/8/23 0.5 ft bgs	Composite LSP-9, LSP-10, LSP-11, LSP-12 3/8/23 2.0 ft bgs	Composite LSP-13, LSP-14, LSP-15, LSP-16 3/8/23 0.5 ft bgs	Composite LSP-13, LSP-14, LSP-15, LSP-16 3/8/23 2.0 ft bgs
Lead Analysis								
Total Lead, mg/kg	170	10	43	6.2	520	240	210	7.8
STLC, mg/L	8.7	-	-	-	24	10	8.4	na
TCLP, mg/l	0.62	-	-	-	1.3	3.8	0.83	na
CAM17 Metals, mg/kg								
Antimony	0.48	<0.44	0.53	0.49	2.7	2	1.1	0.69
Arsenic	3.3	2.8	3.1	3.4	7.1	6.5	3.2	4.3
Barium	81	93	88	84	140	150	95	84
Beryllium	0.41	0.52	0.32	0.37	0.55	0.59	0.43	0.49
Cadmium	<0.066	<0.070	0.08	<0.062	<0.062	<0.063	<0.064	<0.065
Chromium	12	13	15	16	22	21	10	15
Cobalt	5.1	5.9	2.9	2.7	8	7.9	3.3	3.5
Copper	4.9	4.7	7.2	3.8	7.3	7	4.1	4.1
Lead	170	10	43	6.2	520	240	210	7.8
Mercury	0.49	0.04	0.21	0.11	0.026	0.033	<0.020	<0.020
Molybdenum	<0.063	<0.067	<0.061	<0.060	<0.060	<0.060	0.23	<0.062
Nickel	5.3	5.8	6.5	7	12	13	4.2	6.1
Selenium	<1.2	<1.3	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Silver	<0.084	<0.090	<0.081	<0.080	<0.080	<0.081	<0.083	<0.084
Thallium	<0.81	<0.86	<0.78	<0.76	<0.77	<0.77	<0.79	<0.80
Vanadium	18	20	16	20	32	30	16	22
Zinc	38	35	35	20	28	27	15	20
PAHs, mg/kg								
Acenaphthene	-	-	0.078	<0.0016	-	-	-	-
Acenaphthylene	-	-	<0.0022	<0.0011	-	-	-	-
Anthracene	-	-	0.12	<0.00097	-	-	-	-
Benzo[a]anthracene	-	-	0.53	<0.011	-	-	-	-
Benzo[b]fluoranthene	-	-	1	<0.00094	-	-	-	-
Benzo[k]fluoranthene	-	-	0.13	<0.0013	-	-	-	-
Benzo[a]pyrene	-	-	1	<0.00093	-	-	-	-
Benzo[g,h,i]perylene	-	-	0.97	<0.00086	-	-	-	-
Chrysene	-	-	0.57	<0.0013	-	-	-	-
benzo[a,h]anthracene	-	-	0.38	<0.00057	-	-	-	-
Fluoranthene	-	-	0.43	<0.00089	-	-	-	-
Fluorene	-	-	0.007	<0.0012	-	-	-	-
ndeno[1,2,3-cd]pyrene	-	-	0.96	<0.00056	-	-	-	-
Naphthalene	-	-	0.0036	<0.0011	-	-	-	-
Phenanthrene	-	-	0.099	<0.0010	-	-	-	-
Pyrene	-	-	0.47	<0.0014	-	-	-	-



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SCALE IN FEET

0 2,000

Ref. IMK808/IMK808-SLM.dwg
Base Map from USGS

PREPARED BY

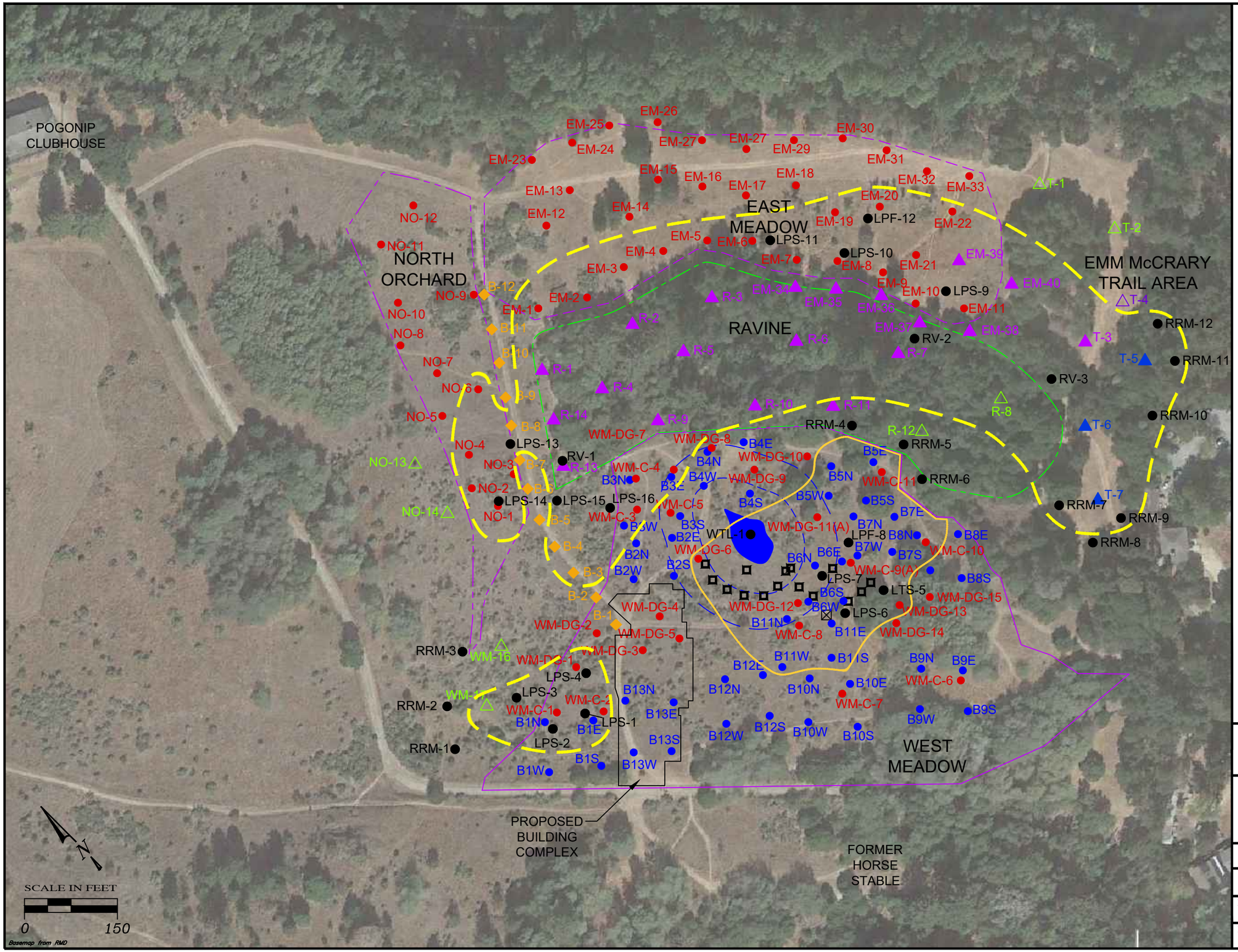
RRM ENVIRONMENTAL ENGINEERING GEOLOGY

SITE LOCATION MAP

LOWER MAIN MEADOW, POGONIP OPEN SPACE

501 Golf Club Drive
Santa Cruz, California

FIGURE:
1
PROJECT:
IMK808



LEGEND

- PROPOSED EAST MEADOW BOUNDARY
- PROPOSED WEST MEADOW BOUNDARY
- PROPOSED NORTH ORCHARD BOUNDARY
- APPROXIMATE RAVINE AREA
- 50' WETLAND BUFFER (NO PLANTING)
- 100' WETLAND BUFFER (NO PLANTING)
- APPROXIMATE LOCATION OF SEASONAL WETLAND
- SHOOTING PAD LOCATION
- UNKNOWN CONCRETE PAD
- SOIL SAMPLE LOCATION (EIS, 2019)
- SOIL SAMPLE LOCATION (RMD, 2020)
- SOIL SAMPLE LOCATION (WHA, 2021)
- SOIL SAMPLE LOCATION (RMD, 2021)
- SOIL SAMPLE LOCATION (WHA, 2021)
- SOIL SAMPLE LOCATION (RMD, 2021)
- SOIL SAMPLE LOCATION (RRM, 2023)
- X-RAY FLUORESCENCE
- APPROXIMATE AREA EXCEEDING LEAD SCREENING LEVEL FOR UNRESTRICTED LAND USE
- APPROXIMATE AREA EXCEEDING POLYCYCLIC AROMATIC HYDROCARBON SCREENING LEVELS FOR UNRESTRICTED LAND USE

EXTENDED SITE MAP with BORING LOCATIONS for UNRESTRICTED RECEPTOR DELINEATION

Lower Main Meadow, Pogonip Open Space
501 Golf Club Drive
Santa Cruz, California

FIGURE: 2

PROJECT No.: IMK808

FILENAME: IM808 EXTENDEDx150.DWG

DRAWN BY: J. YEARWOOD

PREPARED BY ENVIRONMENTAL ENGINEERING & GEOLOGY RRM

A

PREVIOUS FIGURES AND ANALYTICAL DATA TABLES

POGONIP CLUBHOUSE

NORTH ORCHARD

EAST MEADOW

RAVINE

EMMA McCRARY TRAIL AREA

770'

600'

400'

325'

200'

WEST MEADOW

PROPOSED BUILDING COMPLEX

FORMER HORSE STABLE

LEGEND

- PROPOSED EAST MEADOW BOUNDARY
- PROPOSED WEST MEADOW BOUNDARY
- PROPOSED NORTH ORCHARD BOUNDARY
- APPROXIMATE RAVINE AREA
- 50' WETLAND BUFFER (NO PLANTING)
- 100' WETLAND BUFFER (NATIVE PLANTS)
- APPROXIMATE LOCATION OF SEASONAL WETLAND
- HYPOTHETICAL RANGE OF LEAD SHOT (~200'-770')
- HYPOTHETICAL RANGE OF HIGHEST LEAD SHOT CONCENTRATION (~400'-600')
- HYPOTHETICAL RANGE OF CLAY TARGETS (~200'-325')
- SHOOTING PAD LOCATION
- UNKNOWN CONCRETE PAD

Notes:
1) Hypothetical Ranges of Lead Shot and Clay Pigeons Are Based On Standard Skeet Shooting Range Shot Fall Zones. (ITRC, 2015)
2) Proposed Garden Boundaries and Building Complex Based on GPS Coordinate Plan (Fall Creek Engineering, Inc, 2018) and Map of Pogonip Farm & Garden (Homeless Garden Project O&M Plan, 2017)

SITE PLAN

LOWER MAIN MEADOW, POGONIP OPEN SPACE
501 GOLF CLUB DRIVE
SANTA CRUZ, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-POG-001	10/2021	EC	DW

0 150 300
SCALE: 1" = 150'

RMD ENVIRONMENTAL SOLUTIONS

FIGURE 2

R-3	
Depth	Lead
0.5 FT	1,530
2 FT	31.4

EM-7	
Depth	Lead
0.5 FT	752
2 FT	117

EM-34	
Depth	Lead
1 FT	637
2 FT	37.9

EM-8	
Depth	Lead
1 FT	717
2 FT	140

EM-35	
Depth	Lead
0.5 FT	1,800
2 FT	198

EM-9	
Depth	Lead
0.5 FT	1,140
2 FT	81.9

EM-21	
Depth	Lead
0.5 FT	769
2 FT	9.52

EM-36	
Depth	Lead
0.5 FT	2,090
2 FT	28.6

EM-10	
Depth	Lead
0.5 FT	1,670
2 FT	34.1

R-4	
Depth	Lead
0.5 FT	1,600
2 FT	23.7

EM-11	
Depth	Lead
0.5 FT	856
2 FT	140

R-14	
Depth	Lead
0.5 FT	1,220
2 FT	10.9

EM-37	
Depth	Lead
0.5 FT	571
2 FT	14.7

NO-3	
Depth	Lead
0.5 FT	690
2 FT	45.3

R-6	
Depth	Lead
0.5 FT	573
2 FT	341

R-13	
Depth	Lead
0.5 FT	686
2 FT	31.9

WM-DG-13	
Depth	Lead
1.5 FT	1,230
2 FT	49.0

POGONIP CLUBHOUSE

NORTH ORCHARD

EAST MEADOW

RAVINE

WEST MEADOW

EMMA McCRARY TRAIL AREA

PROPOSED BUILDING COMPLEX

FORMER HORSE STABLE

600'

400'

325'

200'

LEGEND

- PROPOSED EAST MEADOW BOUNDARY
- PROPOSED WEST MEADOW BOUNDARY
- PROPOSED NORTH ORCHARD BOUNDARY
- APPROXIMATE RAVINE AREA
- 50' WETLAND BUFFER (NO PLANTING)
- 100' WETLAND BUFFER (NATIVE PLANTS)
- APPROXIMATE LOCATION OF SEASONAL WETLAND
- SHOOTING PAD LOCATION
- UNKNOWN CONCRETE PAD
- SOIL SAMPLE LOCATION (EIS, 2019)
- SOIL SAMPLE LOCATION (RMD, 2020)
- SOIL SAMPLE LOCATION (WHA, 2021)
- SOIL SAMPLE LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2022)
- SOIL SAMPLE LOCATION (RMD,2022)
- 0.5 FT — DEPTH IN FEET BELOW GROUND SURFACE
- 22.1 — ANALYTICAL RESULT IN MILLIGRAMS PER KILOGRAM (mg/kg)
- XRF — X-RAY FLUORESCENCE

Notes:
1) Yellow highlighted locations and values exceed the screening level for recreational trail use (540 mg/kg).
2) Data shown only for locations with lead concentration exceeding the recreational trail use screening level.
3) Hypothetical Ranges of Lead Shot and Clay Pigeons Are Based On Standard Skeet Shooting Range Shot Fall Zones (ITRC, 2015).
4) Proposed Garden Boundaries and Building Complex Based on GPS Coordinate Plan (Fall Creek Engineering, Inc, 2018) and Map of Pogonip Farm & Garden (Homeless Garden Project O&M Plan, 2017).

LEAD CONCENTRATIONS EXCEEDING SCREENING LEVEL FOR RECREATIONAL TRAIL USER

LOWER MAIN MEADOW, POGONIP OPEN SPACE
501 GOLF CLUB DRIVE
SANTA CRUZ, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-POG-001	02/2022	EC	DW

0 150 300
SCALE: 1" = 150'

RMD ENVIRONMENTAL SOLUTIONS

FIGURE 3

POGONIP CLUBHOUSE

NORTH ORCHARD

EAST MEADOW

RAVINE

WEST MEADOW

EMMA McCRARY TRAIL AREA

PROPOSED BUILDING COMPLEX

FORMER HORSE STABLE

LEGEND

- PROPOSED EAST MEADOW BOUNDARY
- PROPOSED WEST MEADOW BOUNDARY
- PROPOSED NORTH ORCHARD BOUNDARY
- APPROXIMATE RAVINE AREA
- 50' WETLAND BUFFER (NO PLANTING)
- 100' WETLAND BUFFER (NATIVE PLANTS)
- APPROXIMATE LOCATION OF SEASONAL WETLAND
- SHOOTING PAD LOCATION
- UNKNOWN CONCRETE PAD
- SOIL SAMPLE LOCATION (EIS, 2019)
- SOIL SAMPLE LOCATION (RMD, 2020)
- SOIL SAMPLE LOCATION (WHA, 2021)
- SOIL SAMPLE LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2022)
- SOIL SAMPLE LOCATION (RMD,2022)
- XRF — X-RAY FLUORESCENCE
- APPROXIMATE AREA EXCEEDING LEAD SCREENING LEVEL FOR RECREATIONAL TRAIL USE
- APPROXIMATE AREA EXCEEDING POLYCYCLIC AROMATIC HYDROCARBON SCREENING LEVELS FOR RECREATIONAL TRAIL USE

Notes:

1) Hypothetical Ranges of Lead Shot and Clay Pigeons Are Based On Standard Skeet Shooting Range Shot Fall Zones (ITRC, 2015).
2) Proposed Garden Boundaries and Building Complex Based on GPS Coordinate Plan (Fall Creek Engineering, Inc, 2018) and Map of Pogonip Farm & Garden (Homeless Garden Project O&M Plan, 2017).

AREAS EXCEEDING SCREENING LEVEL FOR RECREATIONAL TRAIL USE

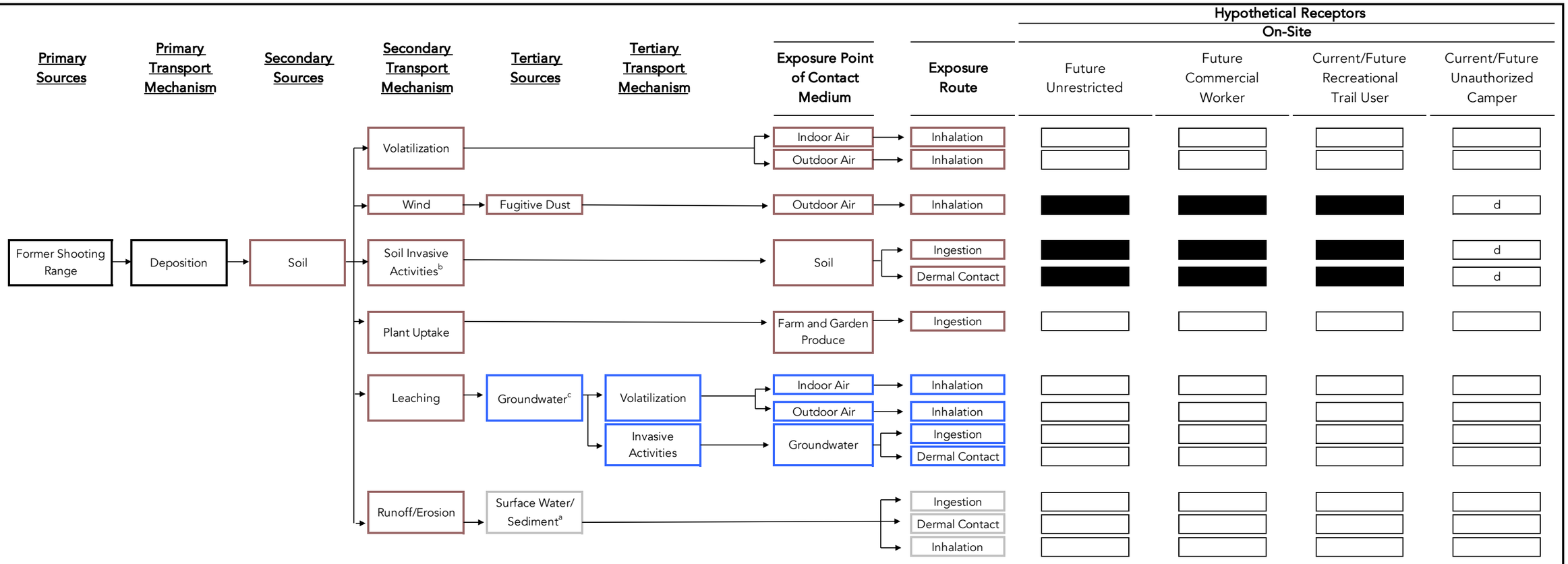
LOWER MAIN MEADOW, POGONIP OPEN SPACE
501 GOLF CLUB DRIVE
SANTA CRUZ, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-POG-001	01/2022	EC	DW

0 150 300
SCALE: 1" = 150'

RMD ENVIRONMENTAL SOLUTIONS

FIGURE 4



CSM components related to soil.
CSM components related to groundwater.
CSM components related to surface water.

Receptor likely to be exposed via this route, so pathway is considered potentially complete.
Receptor may be exposed via this route, so pathway is considered potentially complete; however, pathway is considered minor.
Pathway is incomplete, no further evaluation required.

[a] With the exception of the seasonal wetland, there are no identified surface water bodies within a one-half mile radius of the site.
[b] Surface invasive activities are not expected to extend beyond 2 feet bgs.
[c] Perched shallow groundwater supports seasonal wetlands and seeps. A 345 foot deep water supply well near the Pogonip clubhouse reported a depth to water of 128 feet below ground surface (bgs) in 1993. Due to depth to groundwater, it is not a media of concern at the site.
[d] Camping is prohibited at the Site and the exposure pathways for this receptor are incomplete due to the implementation of engineering controls to mitigate unauthorized camping at the Site.

POGONIP FARM AND GARDEN SANTA CRUZ, CALIFORNIA				HUMAN HEALTH CONCEPTUAL SITE MODEL
PROJECT NO.	DATE	DRAWN BY	APP. BY	RMD ENVIRONMENTAL SOLUTIONS
01-POG-001	02/02/22	II	DW	FIGURE 5

POGONIP CLUBHOUSE

NORTH ORCHARD

EAST MEADOW

RAVINE

WEST MEADOW

EMMA McCRARY TRAIL AREA

PROPOSED BUILDING COMPLEX

FORMER HORSE STABLE

LEGEND

- PROPOSED EAST MEADOW BOUNDARY
- PROPOSED WEST MEADOW BOUNDARY
- PROPOSED NORTH ORCHARD BOUNDARY
- APPROXIMATE RAVINE AREA
- 50' WETLAND BUFFER (NO PLANTING)
- 100' WETLAND BUFFER (NATIVE PLANTS)
- APPROXIMATE LOCATION OF SEASONAL WETLAND
- SHOOTING PAD LOCATION
- UNKNOWN CONCRETE PAD
- SOIL SAMPLE LOCATION (EIS, 2019)
- SOIL SAMPLE LOCATION (RMD, 2020)
- SOIL SAMPLE LOCATION (WHA, 2021)
- SOIL SAMPLE LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2021)
- XRF SCREENING LOCATION (RMD, 2022)
- SOIL SAMPLE LOCATION (RMD,2022)
- XRF — X-RAY FLUORESCENCE
- APPROXIMATE AREA EXCEEDING LEAD SCREENING LEVEL FOR UNRESTRICTED LAND USE
- APPROXIMATE AREA EXCEEDING POLYCYCLIC AROMATIC HYDROCARBON SCREENING LEVELS FOR UNRESTRICTED LAND USE

Notes:
1) Yellow highlighted sample locations exceed the lead screening level for unrestricted land use.
2) Orange highlighted sample locations exceed the polycyclic aromatic hydrocarbon screening levels for unrestricted land use.
3) Sample location WM-DG-13 also reports antimony, arsenic, copper, and zinc exceeding screening levels for unrestricted land use.
4) Shot fragments observed at locations WM-DG-11(A) and WM-DG-13.
5) Clay target fragments observed at locations WM-C-9(A), WM-DG-11(A), WM-DG-13, and EM-10.
6) Proposed Garden Boundaries and Building Complex Based on GPS Coordinate Plan (Fall Creek Engineering, Inc, 2018) and Map of Pogonip Farm & Garden (Homeless Garden Project O&M Plan, 2017).

AREAS EXCEEDING SCREENING LEVELS FOR UNRESTRICTED LAND USE

LOWER MAIN MEADOW, POGONIP OPEN SPACE
501 GOLF CLUB DRIVE
SANTA CRUZ, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-POG-001	01/2022	EC	DW

0 150 300
SCALE: 1" = 150'

RMD ENVIRONMENTAL SOLUTIONS

FIGURE 6

TABLES

Table 1
Lead Concentrations in Soil
Lower Main Meadow, Pogonip Open Space
Santa Cruz, California

Sample ID	Date	Sample Depth (feet bgs)	Lead Shot Observed (Yes / No)	XRF Reading (ppm)	Lead (mg/kg)	
				Background Level[1]	43	
				Unrestricted (Residential) Screening Level[2]	80	
				Commercial Screening Level[2]	500	
				Recreational Trail Use Screening Level[3]	540	
East Meadow						
EM-34-1'	8/3/2021	1	No	784	**637**	
EM-34-2'	8/3/2021	2	No	56	**37.9**	
EM-35-0.5'	8/3/2021	0.5	No	1,822	**1,800**	
EM-35-2'	8/3/2021[4]	2	No	147	**198**	
EM-36-0.5'	8/3/2021	0.5	No	1,579	**2,090**	
EM-36-2'	8/3/2021	2	No	64	**28.6**	
EM-37-0.5'	8/3/2021	0.5	No	955	**571**	
EM-37-2'	8/3/2021	2	No	13	**14.7**	
EM-38-0.5'	8/3/2021	0.5	No	499	**490**	
EM-38-2'	8/3/2021	2	No	48	**41.3**	
EM-39-0.5'	8/3/2021	0.5	No	519	**504**	
EM-39-2'	8/3/2021	2	No	285	**220**	
EM-40-0.5	8/3/2021	0.5	No	245	**323**	O1
EM-40-2'	8/3/2021	2	No	16	**18.6**	
Ravine						
R-1-0.5'	8/4/2021	0.5	No	226	**400**	
R-1-2'	8/4/2021	2	No	131	**61.5**	
R-2-0.5'	8/4/2021	0.5	No	28	**215**	
R-2-2'	8/4/2021	2	No	4	**8.80**	O1
R-3-0.5'	8/3/2021	0.5	No	810	**1,530**	
R-3-2'	8/3/2021	2	No	12	**31.4**	
R-4-0.5'	8/4/2021	0.5	No	1,302	**1,600**	
R-4-2'	8/4/2021	2	No	16	**23.7**	
R-5-0.5'	8/4/2021	0.5	No	234	**9.86**	
R-5-2'	8/4/2021	2	No	18	**17.9**	
R-6-0.5'	8/3/2021	0.5	No	628	**573**	
R-6-2'	8/3/2021	2	No	290	**341**	
R-7-0.5'	8/4/2021	0.5	No	454	**456**	
R-7-2'	8/4/2021	2	No	33	**66.0**	
R-8-1.5'	8/4/2021	1.5	No	98	--	
R-8-2'	8/4/2021	2	No	93	--	
R-9-0.5'	8/4/2021	0.5	No	182	**256**	
R-9-2'	8/4/2021	2	No	11	**6.59**	
R-10-0.5'	8/4/2021	0.5	No	86	**94.0**	
R-10-2'	8/4/2021	2	No	3	**12.5**	
R-11-0.5'	8/4/2021	0.5	No	93	**75.7**	
R-11-2'	8/4/2021	2	No	20	**23.3**	
R-12-0.5'	8/4/2021	0.5	No	61	--	
R-12-2'	8/4/2021	2	No	28	--	
R-13-0.5'	8/5/2021	0.5	No	741	**686**	
R-13-2'	8/5/2021	2	No	17	**31.9**	
R-14-0.5'	8/5/2021	0.5	No	1,075	**1,220**	
R-14-2'	8/5/2021	2	No	6	**10.9**	

Table 1
Lead Concentrations in Soil
Lower Main Meadow, Pogonip Open Space
Santa Cruz, California

Sample ID	Date	Sample Depth (feet bgs)	Lead Shot Observed (Yes / No)	XRF Reading (ppm)	Lead (mg/kg)	
				Background Level[1]	43	
				Unrestricted (Residential) Screening Level[2]	80	
				Commercial Screening Level[2]	500	
				Recreational Trail Use Screening Level[3]	540	
Emma McCrary Trail Area						
T-1-0.5'	8/3/2021	0.5	No	19	--	
T-1-2'	8/3/2021	2	No	14	--	
T-2-0.5'	8/4/2021	0.5	No	23	--	
T-2-2'	8/4/2021	2	No	6	--	
T-3-0.5'	8/4/2021	0.5	No	384	**474**	
T-3-2'	8/4/2021	2	No	8	**8.15**	
T-4-0.5'	1/11/2022	0.5	No	48	--	
T-4-2'	1/11/2022	2	No	15	--	
T-5-0.5'	1/11/2022	0.5	No	99	**159**	
T-5-2'	1/11/2022	2	No	13	**7.07**	
T-6-0.5'	1/11/2022	0.5	No	152 / 489 / 91	**187**	
T-6-2'	1/11/2022	2	No	12	**9.42**	
T-7-0.5'	1/11/2022	0.5	No	107 / 82	**153**	
T-7-2'	1/11/2022	2	No	33	**8.92**	
North Orchard						
NO-13-0.5'	8/5/2021	0.5	No	14	--	
NO-13-2'	8/5/2021	2	No	3	--	
NO-14-0.5'	8/5/2021	0.5	No	56	--	
NO-14-2'	8/5/2021	2	No	4	--	
West Meadow						
WM-16-0.5'	8/5/2021	0.5	No	18	--	
WM-16-2'	8/5/2021	2	No	3	--	
WM-17-0.5'	8/5/2021	0.5	No	133	--	
WM-17-2'	8/5/2021	2	No	5	--	

Notes:
Soil samples sieved using No. 10 sieve and metals analyzed using USEPA Method 6020.
Analytes detected above laboratory reporting limit are **emboldened**.
Analytes detected above background level and Recreational Trail User Screening Level are highlighted.
XRF = X-Ray Fluorescence.
bgs = below ground surface.
ppm = parts per million.
mg/kg = milligrams per kilogram.
-- = Not analyzed.
O1 = The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

[1] Lawrence Berkeley National Laboratory (LBNL, 2009), was used to establish an acceptable upper estimate background concentration for

[2] In order of priority, the screening level represents the Department of Toxic Substances Control (DTSC)-modified screening level (DTSC, 2022) followed by U.S. Environmental Protection Agency (USEPA) Regional Screening Level (RSL; USEPA, 2022).

[3] The Recreational Trail Use Screening Level was determined based on an evaluation of soil data collected from 2019-2020 and was described in the Preliminary Endangerment Assessment Report (RMD, 2020).

[4] Sample EM-35-2' initially reported a lead concentration of 5,810 mg/kg and was reanalyzed to confirm the result. The reanalyzed sample reported a lead concentration of 198 mg/kg.

References:
DTSC, 2022. Human Health Risk Assessment (HHRA) Note Number 3. May.
LBNL, 2009. Analysis of Background Distributions of Metals in Soil at Lawrence Berkeley National Laboratory. Revised April.
RMD, 2020. Preliminary Endangerment Assessment Report, Pogonip Farm and Garden, 333 Golf Club Drive, Santa Cruz, California. August
USEPA, 2022. Regional Screening Level (RSL) Summary Table (TR=1E-6, HQ=1). May.

Table 2
Polycyclic Aromatic Hydrocarbon Concentrations in Soil
Lower Main Meadow, Pogonip Open Space
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Clay Target Fragments Observed	Notes	ANTHRACENE	ACENAPHTHENE	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	PHENANTHRENE	PYRENE	NAPHTHALENE	1-METHYL NAPHTHALENE	2-METHYL NAPHTHALENE
		(feet bgs)	*(feet bgs)*		*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
Unrestricted (Residential) Screening Level[1]					17,000	3,300	1.1	0.11	1.1	NE	11	110	0.028	2,400	2,300	1.1	NE	1,800	2.0	9.9	190
Commercial Screening Level[1]					130,000	23,000	12	1.3	13	NE	130	1,300	0.31	18,000	17,000	13	NE	13,000	6.5	30	1,300
Recreational Trail Use Screening Level[2]					120,000	23,000	45	4.5	45	NE	450	4,500	1.1	NE	15,000	45	NE	12,000	34	140	1,400
West Meadow																					
WM-C-5-0.5'	05/13/2020	0 - 0.5			<0.00645	<0.00645	**0.00425** J	**0.00642** J	**0.00668**	**0.00606** J	**0.00326** J	**0.00552** J	<0.00645	**0.00445** J	<0.00645	**0.00467** J	<0.00645	**0.00486** J	<0.0215	<0.0215	<0.0215
WM-C-6-0.5'	05/14/2020	0 - 0.5			<0.00644	<0.00644	<0.00644	<0.00644	**0.00244** J	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.0215	<0.0215	<0.0215
WM-C-7-0.5'	05/14/2020	0 - 0.5			<0.00752	<0.00752	**0.00232** J	**0.00283** J	**0.00352** J	**0.00295** J	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	**0.00292** J	<0.0251	<0.0251	<0.0251
WM-C-8-0.5'	05/14/2020	0 - 0.5			**0.0273**	**0.0102**	**0.216**	**0.267**	**0.323**	**0.176**	**0.081**	**0.261**	**0.0532**	**0.340**	**0.00293** J	**0.155**	**0.102**	**0.309**	<0.0240	<0.0240	<0.0240
WM-C-8-2'	05/14/2020	1.5 - 2			<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.0247	<0.0247	<0.0247
WM-C-9A-1'	05/15/2020	0.5 - 1	0.5-1.5		**0.231**	**0.0866**	**5.64**	**10.4**	**11.5**	**4.88**	**2.79**	**6.44**	**1.85**	**4.22**	**0.0319** J	**4.99**	<0.215	**0.828**	**4.68**	<0.215	<0.215
WM-C-9-2'	05/14/2020	1.5 - 2			<0.00717	<0.00717	**0.0332**	**0.0608**	**0.0593**	**0.0545**	**0.0232**	**0.0412**	**0.0145**	**0.0272**	<0.00717	**0.0446**	**0.00582** J	**0.0319**	<0.0239	<0.0239	<0.0239
WM-C-10-0.5'	05/14/2020	0 - 0.5			**0.0115**	**0.00499** J	**0.121**	**0.185**	**0.192**	**0.131**	**0.0803**	**0.172**	**0.0395**	**0.162**	<0.00706	**0.112**	**0.0508**	**0.155**	<0.0235	<0.0235	<0.0235
WM-C-10-2'	05/14/2020	1.5 - 2			**0.0258**	**0.00645** J	**0.175**	**0.243**	**0.298**	**0.179**	**0.0819**	**0.217**	**0.0506**	**0.268**	**0.00249** J	**0.153**	**0.0736**	**0.229**	<0.0217	<0.0217	<0.0217
WM-C-11-0.5'	05/13/2020	0 - 0.5			<0.00640	<0.00640	**0.00257** J	**0.00383** J	**0.00553** J	**0.00419** J	<0.00640	**0.00307** J	<0.00640	**0.00273** J	<0.00640	**0.00306** J	<0.00640	**0.0028** J	<0.0213	<0.0213	<0.0213
WM-C-11-2'	05/13/2020	1.5 - 2			**0.56**	**0.23**	**2.68**	**2.56**	**2.88**	**1.42**	**0.772**	**3.02**	**0.468**	**3.81**	**0.123**	**1.25**	**2.43**	**4.18**	**0.0112** J	**0.0106** J	**0.0215** J
WM-DG-1-0.5'	05/13/2020	0 - 0.5			<0.00687	<0.00687	<0.00687	<0.00687	0.00247 J	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.0229	<0.0229	<0.0229
WM-DG-2-0.5'	05/13/2020	0 - 0.5			<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.0242	<0.0242	<0.0242
WM-DG-3-0.5'	05/13/2020	0 - 0.5			<0.00676	<0.00676	<0.00676	<0.00676	0.00267 J	**0.00215** J	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.0225	<0.0225	<0.0225
WM-DG-4-0.5'	05/13/2020	0 - 0.5			<0.00726	<0.00726	<0.00726	**0.0027** J	**0.00347** J	**0.00283** J	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.0242	<0.0242	<0.0242
WM-DG-5-0.5'	05/13/2020	0 - 0.5			<0.00733	<0.00733	<0.00733	**0.00239** J	**0.00287** J	**0.00256** J	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.0244	<0.0244	<0.0244
WM-DG-6-0.5'	05/13/2020	0 - 0.5			**0.131**	**0.0763**	**2.85**	**3.61**	**3.88**	**2.27**	**1.31**	**3.61**	**0.836**	**3.07**	**0.0173**	**2.03**	**0.633**	**3.23**	**0.00974** J	**0.0111** J	**0.0133** J
WM-DG-6-2'	05/13/2020	1.5 - 2			**0.185**	**0.114**	**5.43**	**7.56**	**7.92**	**4.06**	**1.85**	**7.05**	**0.238**	**5.06**	**0.0248**	**3.58**	**0.942**	**6.73**	**0.0141** J	**0.0162** J	**0.0194** J
WM-DG-7-0.5'	05/13/2020	0 - 0.5			<0.00639	<0.00639	**0.00345** J	**0.00558** J	**0.00635** J	**0.00506** J	<0.00639	**0.00452** J	<0.00639	**0.00399** J	<0.00639	**0.00419** J	<0.00639	**0.00411** J	<0.0213	<0.0213	<0.0213
WM-DG-8-0.5'	05/13/2020	0 - 0.5			<0.00730	<0.00730	**0.0529**	**0.107**	**0.113**	**0.0893**	**0.0331**	**0.0669**	**0.0252**	**0.0409**	<0.00730	**0.0754**	**0.00898**	**0.0444**	<0.0243	<0.0243	<0.0243
WM-DG-9-0.5'	05/13/2020	0 - 0.5			<0.00694	<0.00694	<0.00694	**0.00271** J	**0.0034** J	**0.00272** J	<0.00694	<0.00694	<0.00694	<0.00694	<0.00694	**0.00213** J	<0.00694	<0.00694	<0.0231	<0.0231	<0.0231
WM-DG-10-0.5'	05/13/2020	0 - 0.5			<0.00690	<0.00690	**0.00254** J	**0.00254** J	**0.00298** J	<0.00690	<0.00690	**0.00297** J	<0.00690	**0.00366** J	<0.00690	<0.00690	<0.00690	**0.00373** J	<0.0230	<0.0230	<0.0230
WM-DG-11-0.5'	05/14/2020	0 - 0.5			<0.0242	<0.0242	**0.041**	**0.0608**	**0.0665**	**0.0445**	0.0224 J	**0.0535**	**0.0115** J	**0.0469**	<0.0242	**0.0371**	**0.0158** J	**0.0477**	<0.0804	<0.0804	<0.0804
WM-DG-11-0.5'-DUP	05/14/2020	0 - 0.5	0.5-1	Duplicate	**0.986**	**0.651**	**8.45**	**10.5**	**12.2**	**3.35**	**4.00**	**9.86**	**2.38**	**11.1**	**0.260**	**3.61**	**4.14**	**11.8**	**0.321**	**0.0762**	**0.11**
WM-DG-11A-1'	05/15/2020	0.5 - 1			**0.00491** J	<0.00659	**0.0544** J3	**0.0886** J3,J6	**0.0813** J3,J6	**0.0751** J3	**0.0336** J3	**0.0709** J3	**0.0196**	**0.0595**	<0.00659	**0.0637** J3	<0.0220	**0.0152**	**0.061**	<0.0220	<0.0220
WM-DG-11-2'	05/14/2020	1.5 - 2			<0.00716	<0.00716	**0.00212** J	**0.00258** J	**0.00271** J	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	**0.00716** J	<0.0239	<0.0239
WM-DG-12-0.5'	05/14/2020	0 - 0.5			**0.0278**	**0.0132**	**0.304**	**0.354**	**0.415**	**0.243**	**0.12**	**0.365**	**0.0661**	**0.347**	**0.00273** J	**0.203**	**0.13**	**0.498**	<0.0222	<0.0222	<0.0222
WM-DG-12-2'	05/14/2020	1.5 - 2			<0.00675	<0.00675	**0.0100**	**0.00997**	**0.0102**	**0.00534** J	**0.00445** J	**0.0126**	<0.00675	**0.014**	<0.00675	**0.00474** J	**0.00682**	**0.0159**	<0.0225	<0.0225	<0.0225
WM-DG-13-1.5'	05/14/2020	1 - 1.5	0.5-2		**0.252**	**0.113**	**6.42**	**11.7**	**14.8**	**7.52**	**4.02**	**8.75**	**4.45**	**5.74**	**0.0241**	**6.25**	**0.901**	**5.68**	**0.0462**	**0.0166** J	**0.0201** J
WM-DG-13-2'	05/14/2020	1.5 - 2			**0.00609** J	<0.00670	**0.19**	**0.358**	**0.393**	**0.365**	**0.123**	**0.257**	**0.105**	**0.123**	<0.00670	**0.292**	**0.0186**	**0.158**	**0.00491** J	<0.0223	<0.0223
WM-DG-14-0.5'	05/14/2020	0 - 0.5			<0.00659	<0.00659	**0.00997**	**0.0149**	**0.0169**	**0.0138**	**0.00589** J	**0.0122**	**0.00377** J	**0.0108**	<0.00659	**0.0107**	**0.00295** J	**0.0124**	<0.0220	<0.0220	<0.0220
WM-DG-15-0.5'	05/14/2020	0 - 0.5			<0.00686	<0.00686	**0.00482** J	**0.00658** J	**0.00832**	**0.00645** J	**0.00264** J	**0.00575** J	<0.00686	**0.00552** J	<0.00686	**0.00486** J	<0.00686	**0.0065** J	<0.0229	<0.0229	<0.0229
North Orchard																					
NO-3-0.5'	05/14/2020	0 - 0.5			<0.00726	<0.00726	<0.00726	<0.00726	0.00191 J	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.0242	<0.0242	<0.0242
NO-4-0.5'	05/14/2020	0 - 0.5			<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.0233	<0.0233	<0.0233
NO-6-0.5'	05/14/2020	0 - 0.5			<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.0262	<0.0262	<0.0262
East Meadow																					
EM-1-0.5'	05/12/2020	0 - 0.5			<0.00688	<0.00688 J3	<0.00688	<0.00688	**0.00228** J	<0.00688	<0.00688 J3	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.0229 J3	<0.0229 J3	<0.0229 J3
EM-2-0.5'	05/12/2020	0 - 0.5			<0.00693	<0.00693	**0.00233** J	**0.00267** J	**0.00508** J	**0.00326** J	<0.00693	**0.0028** J	<0.00693	**0.00337** J	<0.00693	**0.00232** J	<0.00693	**0.00292** J	<0.0231	<0.0231	<0.0231
EM-3-0.5'	05/12/2020	0 - 0.5			<0.00690	<0.00690	<0.00690	<0.00690	**0.00324** J	**0.00258** J	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.0230	<0.0230	<0.0230
EM-4-1.5'	05/12/2020	1 - 1.5			<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.0219	<0.0219	<0.0219
EM-5-0.5'	05/12/2020	0 - 0.5			<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.0216	<0.0216	<0.0216
EM-6-0.5'	05/12/2020	0 - 0.5			<0.00671	<0.00671	<0.00671	<0.00671	**0.00332** J	**0.00223** J	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.0224	<0.0224	<0.0224
EM-7-0.5'	05/12/2020	0 - 0.5			<0.00663	<0.00663	<0.00663	<0.00663	**0.00224** J	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.0221	<0.0221	<0.0221
EM-8-1'	05/12/2020	0.5 - 1			<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.0217	<0.0217	<0.0217
EM-9-0.5'	05/12/2020	0 - 0.5			<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.0214	<0.0214	<0.0214
EM-10-0.5'	05/12/2020	0 - 0.5	0-1.5		<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.0211	<0.0211	<0.0211
EM-11-0.5'	05/12/2020	0 - 0.5			<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	**0.0114** J	<0.0236	**0.0102** J
EM-21-0.5'	05/14/2020	0 - 0.5			<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.0215	<0.0215	<0.0215
EM-21-0.5'-DUP	05/14/2020	0 - 0.5		Duplicate	<0.00650	<0.00650	<0.00650	<0.00650	**0.00183** J	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.0217	<0.0217	<0.0217

Table 2
Polycyclic Aromatic Hydrocarbon Concentrations in Soil
Lower Main Meadow, Pogonip Open Space
Santa Cruz, California

Notes:
PAHs analyzed using USEPA Method 8270C-SIM.
Analytes detected above laboratory reporting limit are **emboldened**.
Analytes detected above Unrestricted (Residential) Screening Level are highlighted orange.
Analytes detected above Recreational Trail Use Screening Level are highlighted blue.
Analytes detected above Commercial Screening Level are underlined.
bgs = Below ground surface.
mg/kg = Milligrams per kilogram.
NE = Not Established.
PAHs = Polycyclic Aromatic Hydrocarbons.
SIM = Selective Ion Mode.
J = The identification of the analyte is acceptable; the reported value is an estimate.
J3 = The associated batch QC was outside the established quality control range for precision.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
[1] The screening level represents the Department of Toxic Substances Control (DTSC)-modified screening level (DTSC, 2020).
[2] The Recreational Trail Use Screening Level was determined based on an evaluation of soil data collected from 2019-2020.

References:
DTSC, 2020. Human Health Risk Assessment (HHRA) Note Number 3. June.

Table 1
Metals in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Shot Observed	XRF Reading	Notes	Antimony		Arsenic		Copper		Lead		Zinc	
		(feet bgs)	*(feet bgs)*	*(ppm)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
Background Level[1]						6		11		63		43		140	
Unrestricted (Residential) Screening Level[2]						31		0.11		3,100		80		23,000	
Commercial Screening Level[2]						470		0.36		47,000		320		350,000	
West Meadow															
WM-C-1-0.5'	5/13/2020	0 - 0.5		222		**1.31**	J	**2.63**		**12.3**		**181**		**23.9**	
WM-C-1-2'	5/13/2020	1.5 - 2		54		-		-		-		**36.9**		-	
WM-C-2-0.5'	5/13/2020	0 - 0.5		202		**0.989**	J	**2.13**	J	**6.91**		**182**		**15.3**	
WM-C-2-0.5' DUP	5/13/2020	0 - 0.5		202	Duplicate	**1.57**	J	**2.45**		**7.54**		**156**		**13.6**	
WM-C-2-2'	5/13/2020	1.5 - 2		26		-		-		-		**11.1**		-	
WM-C-3-0.5'	5/13/2020	0 - 0.5		244		**1.23**	J	**2.14**	J	**8.38**		**161**		**53.6**	
WM-C-3-2'	5/13/2020	1.5 - 2		13		-		-		-		**23.5**		-	
WM-C-4-0.5'	5/13/2020	0 - 0.5		368		**0.683**	J	**1.92**	J	**6.96**		**141**		**15**	
WM-C-4-2'	5/13/2020	1.5 - 2		27		-		-		-		**12.6**		-	
WM-C-5-0.5'	5/13/2020	0 - 0.5		95		**0.568**	J	**1.58**	J	**77.7**	O1	**76.9**	O1	**78.5**	O1
WM-C-6-0.5'	5/14/2020	0 - 0.5		30		**0.897**	J,J6	**2.16**		**4.92**		**10.6**		**19.7**	
WM-C-7-0.5'	5/14/2020	0 - 0.5		13		**0.785**	J	<2.51		**47.3**		**8.57**		**59.1**	
WM-C-8-0.5'	5/14/2020	0 - 0.5		31		**0.879**	J	<2.40		**18.1**		**15.0**		**31.0**	
WM-C-9A-1'	5/15/2020	0.5 - 1		105		**0.727**	J	**1.55**	J	**5.61**		**71.2**		**18.6**	
WM-C-10-0.5'	5/14/2020	0 - 0.5		-		**1.65**	J	**3.81**		**9.09**		**27.0**		**26.6**	
WM-C-11-0.5'	5/13/2020	0 - 0.5		45		**1.47**	J	**10.7**		**7.86**		**29.3**		**24.3**	
WM-DG-1-0.5'	5/13/2020	0 - 0.5		241		**1.41**	J	**2.69**		**8.57**		**188**		**16.4**	
WM-DG-1-2'	5/13/2020	1.5 - 2		9		-		-		-		**15.9**		-	
WM-DG-2-0.5'	5/13/2020	0 - 0.5		168		<2.42		**2.74**		**10.3**		**6.16**		**12.9**	
WM-DG-3-0.5'	5/13/2020	0 - 0.5		90		**0.833**	J	**1.28**	J	**5.66**		**51.1**		**23.0**	
WM-DG-4-0.5'	5/13/2020	0 - 0.5		30		<2.42		**1.76**	J	**16.2**		**19.8**		**28.3**	
WM-DG-5-0.5'	5/13/2020	0 - 0.5		19		<2.44		**1.53**	J	**13.9**		**38.1**		**23.1**	
WM-DG-6-0.5'	5/13/2020	0 - 0.5		311		<2.22		**2.25**		**11.0**		**27.0**		**18.5**	
WM-DG-7-0.5'	5/13/2020	0 - 0.5		120		**0.721**	J	**1.77**	J	**7.01**		**116**		**17.0**	
WM-DG-7-2'	5/13/2020	1.5 - 2		29		-		-		-		**12.1**		-	
WM-DG-8-0.5'	5/13/2020	0 - 0.5		59		**0.637**	J	**1.43**	J	**9.12**		**55.7**		**21.0**	
WM-DG-9-0.5'	5/13/2020	0 - 0.5		28		<2.31		**1.52**	J	**299**		**17.5**		**91.1**	
WM-DG-10-0.5'	5/13/2020	0 - 0.5		46		**0.640**	J	**2.78**		**10.9**		**28.7**		**25.0**	
WM-DG-11-0.5'	5/14/2020	0 - 0.5		59		**2.01**	J	**2.72**	B	**263**		**76.0**		**689**	
WM-DG-11-0.5'-DUP	5/14/2020	0 - 0.5	0.5-2	59	Duplicate	**1.55**	J	**2.13**	B,J	**14.9**		**40.9**		**75.8**	
WM-DG-11A-1'	5/15/2020	0.5 - 1		16		<2.20		**1.77**	J	**9.01**		**11.5**		**15.6**	
WM-DG-12-0.5'	5/14/2020	0 - 0.5		64		**1.58**	J	**1.65**	B,J	**10.8**		**39.1**		**51.6**	
WM-DG-13-1.5'	5/14/2020	1 - 1.5	1-2	1,095		**41.7**	J	**15.9**	B,J	**6,320**		**1,230**		**28,500**	
WM-DG-13-2'	5/14/2020	1.5 - 2		33		**3.33**		**3.61**	B	**214**		**49.0**		**2,770**	
WM-DG-14-0.5'	5/14/2020	0 - 0.5		19		**0.817**	J	**2.82**	B	**8.28**		**13.8**		**40.8**	
WM-DG-15-0.5'	5/14/2020	0 - 0.5		23		**1.80**	J	**2.17**	B,J	**76.9**		**23.8**		**303**	
North Orchard															
NO-1-0.5'	5/14/2020	0 - 0.5		225		**3.54**		**3.05**	B	**6.32**		**265**		**24.0**	
NO-1-2'	5/14/2020	1.5 - 2		25		-		-		-		**6.55**		-	
NO-2-0.5'	5/14/2020	0 - 0.5		119		**1.65**	J	**1.94**	B,J	**8.14**		**107**		**17.6**	
NO-2-2'	5/14/2020	1.5 - 2		28		-		-		-		**5.58**		-	
NO-3-0.5'	5/14/2020	0 - 0.5		863		**6.94**		**4.77**	B	**11.3**		**690**		**21.5**	
NO-3-2'	5/14/2020	1.5 - 2		35		-		-		-		**45.3**		-	
NO-4-0.5'	5/14/2020	0 - 0.5		211		**2.03**	J	**1.60**	B,J	**8.16**		**180**		**15.7**	
NO-4-2'	5/14/2020	1.5 - 2		16		-		-		-		**3.97**		-	
NO-5-0.5'	5/14/2020	0 - 0.5		10		**1.08**	J	**1.57**	B,J	**50.8**		**40.0**		**44.2**	
NO-6-0.5'	5/14/2020	0 - 0.5		118		**1.97**	J	**2.32**	B,J	**23.2**		**144**		**41.8**	
NO-6-2'	5/14/2020	1.5 - 2		14		-		-		-		**13.9**		-	
NO-7-0.5'	5/14/2020	0 - 0.5		43		**0.926**	J	**1.91**	B,J	**8.08**		**29.8**		**24.8**	
NO-8-0.5'	5/15/2020	0 - 0.5		31		**0.928**	J	<2.46		**18.9**		**18.5**		**23.1**	
NO-9-0.5'	5/14/2020	0 - 0.5		39		**1.51**	J	**1.70**	B,J	**14.4**		**20.0**		**26.7**	
NO-10-0.5'	5/15/2020	0 - 0.5		17		<2.33		<2.33		**18.0**		**14.0**		**27.5**	
NO-11-0.5'	5/15/2020	0 - 0.5		18		**1.04**	J	**0.655**	J	**15.0**		**14.5**		**26.8**	
NO-12-0.5'	5/15/2020	0 - 0.5		21		**0.718**	J	<2.42		**17.1**		**10.5**		**49.8**	
East Meadow															
EM-1-0.5'	5/12/2020	0 - 0.5		119		**2.34**		**2.42**		**63.1**		**138**		**69.6**	
EM-1-2'	5/12/2020	1.5 - 2		39		-		-		-		**22.1**		-	
EM-2-0.5'	5/12/2020	0 - 0.5		153		**1.93**	J	**2.42**		**24.6**		**182**		**31.0**	
EM-2-2'	5/12/2020	1.5 - 2		15		-		-		-		**13.4**		-	
EM-3-0.5'	5/12/2020	0 - 0.5		219		**2.87**		**3.23**		**16.6**		**203**		**20.4**	
EM-3-2'	5/12/2020	1.5 - 2		24		-		-		-		**51.3**		-	
EM-4-1.5'	5/12/2020	1 - 1.5		166		**5.15**		**4.58**		**15.8**		**164**		**25.3**	
EM-4-2'	5/12/2020	1.5 - 2		47		-		-		-		**61.3**		-	
EM-5-0.5'	5/12/2020	0 - 0.5		139		**2.51**		**3.21**		**19.1**		**115**		**26.4**	
EM-5-2'	5/12/2020	1.5 - 2		95		-		-		-		**53.6**		-	
EM-6-0.5'	5/12/2020	0 - 0.5		372		**3.46**		**3.91**		**19.9**		**264**		**28.8**	
EM-6-2'	5/12/2020	1.5 - 2		83		-		-		-		**17.9**		-	
EM-7-0.5'	5/12/2020	0 - 0.5		758		**17.0**		**9.58**		**21.1**		**752**		**30.7**	
EM-7-2'	5/12/2020	1.5 - 2		46		-		-		-		**117**		-	
EM-8-1'	5/12/2020	0.5 - 1		549		**11.8**		**8.69**		**14.7**		**717**		**31.1**	
EM-8-2'	5/12/2020	1.5 - 2		94		-		-		-		**140**		-	

Table 1
Metals in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Shot Observed	XRF Reading	Notes	Antimony		Arsenic		Copper		Lead		Zinc	
		(feet bgs)	*(feet bgs)*	*(ppm)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
Background Level[1]						6		11		63		43		140	
Unrestricted (Residential) Screening Level[2]						31		0.11		3,100		80		23,000	
Commercial Screening Level[2]						470		0.36		47,000		320		350,000	
EM-9-0.5'	5/12/2020	0 - 0.5		1,227		**5.46**		**6.71**		**10.7**		**1.140**		**22.1**	
EM-9-2'	5/12/2020	1.5 - 2		168		-		-		-		**81.9**		-	
EM-10-0.5'	5/12/2020	0 - 0.5		2,973		**6.07**		**8.44**		**12.6**		**1.670**		**29.0**	
EM-10-2'	5/12/2020	1.5 - 2		15		-		-		-		**34.1**		-	
EM-11-0.5'	5/12/2020	0 - 0.5		569		**3.78**		**7.16**		**24.4**		**856**		**36.2**	
EM-11-2'	5/12/2020	1.5 - 2		94		-		-		-		**140**		-	
EM-12-0.5'	5/14/2020	0 - 0.5		31		<2.44		**3.04**	B	**38.6**		**9.15**		**98.3**	
EM-13-0.5'	5/15/2020	0 - 0.5		24		**0.815**	J	**0.554**	J	**9.98**		**11.2**		**25.4**	
EM-14-0.5'	5/14/2020	0 - 0.5		38		**1.58**	J	**2.92**	B	**12.5**		**33.0**		**44.5**	
EM-14-0.5'-DUP	5/14/2020	0 - 0.5		38	Duplicate	**2.14**	J	**2.80**	B	**14.0**		**32.5**		**55.3**	
EM-15-0.5'	5/15/2020	0 - 0.5		26		**1.12**	J	**1.72**	J	**13.0**		**16.1**		**33.0**	
EM-16-0.5'	5/15/2020	0 - 0.5		42		**1.00**	J	**1.33**	J	**14.0**		**24.6**		**37.3**	
EM-17-0.5'	5/15/2020	0 - 0.5		47		**1.50**	J	**1.13**	J	**13.8**		**40.3**		**35.0**	
EM-18-0.5'	5/15/2020	0 - 0.5		39		**3.29**		**2.35**		**11.2**		**44.5**		**30.5**	
EM-19-0.5'	5/14/2020	0 - 0.5		167		**3.13**		**3.57**	B	**12.7**		**116**		**46.0**	
EM-19-2'	5/14/2020	1.5 - 2		64		-		-		-		**38.4**		-	
EM-20-0.5'	5/15/2020	0 - 0.5		58		<2.53		**2.07**	J	**20.5**		**95.2**		**33.4**	
EM-20-2'	5/15/2020	1.5 - 2		10		-		-		-		**9.26**		-	
EM-21-0.5'	5/14/2020	0 - 0.5		776		**10.0**		**6.12**		**7.16**		**768**		**28.7**	
EM-21-0.5'-DUP	5/14/2020	0 - 0.5		776	Duplicate	**6.85**		**5.65**	B	**7.33**		**769**		**30.6**	
EM-21-2'	5/14/2020	1.5 - 2		17		-		-		-		**9.52**		-	
EM-22-0.5'	5/15/2020	0 - 0.5		100		<2.28		**2.39**		**12.3**		**92.6**		**22.8**	
EM-22-2'	5/15/2020	1.5 - 2		17		-		-		-		**25.9**		-	
EM-23-0.5'	5/15/2020	0 - 0.5		29		**0.932**	J	**1.24**	J	**12.8**		**10.7**		**26.0**	
EM-24-0.5'	5/15/2020	0 - 0.5		33		**0.886**	J	**0.686**	J	**9.50**		**9.18**		**26.8**	
EM-25-0.5'	5/15/2020	0 - 0.5		30		**0.786**	J	**0.810**	J	**12.2**		**10.3**		**28.7**	
EM-26-0.5'	5/15/2020	0 - 0.5		19		**0.656**	J	**1.02**	J	**11.7**		**10.8**		**25.1**	
EM-27-0.5'	5/15/2020	0 - 0.5		34		**1.02**	J	**0.823**	J	**13.6**		**6.12**		**26.4**	
EM-28-0.5'	5/15/2020	0 - 0.5		29		**0.813**	J	**0.865**	J	**14.4**		**14.3**		**31.9**	
EM-29-0.5'	5/15/2020	0 - 0.5		31		**0.720**	J	**1.02**	J	**10.8**		**17.8**		**36.8**	
EM-30-0.5'	5/15/2020	0 - 0.5		31		<2.25		**2.52**		**21.9**		**18.0**		**24.1**	
EM-31-0.5'	5/15/2020	0 - 0.5		33		<2.30		**2.07**	J	**9.94**		**15.4**		**19.1**	
EM-32-0.5'	5/15/2020	0 - 0.5		18		<2.34		**2.01**	J	**13.8**		**37.4**		**23.0**	
EM-33-0.5'	5/15/2020	0 - 0.5		17		<2.25		**2.23**	J	**8.74**		**12.3**		**19.0**	

Notes:
Soil samples sieved using No. 10 sieve and metals analyzed using USEPA Method 6010B.
Analytes detected above laboratory reporting limit are **emboldened**.
Analytes detected above background level and Unrestricted (Residential) Screening Level are highlighted.
Analytes detected above background level and Commercial Screening Level are underlined.
bgs = Below ground surface.
mg/kg = Milligrams per kilogram.
- = Not analyzed.
B = The same analyte is found in the associated blank.
J = The identification of the analyte is acceptable; the reported value is an estimate.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1 = The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
[1] Lawrence Berkeley National Laboratory (LBNL, 2009), was used to establish acceptable upper estimate background concentrations for metals with the exception of arsenic. For arsenic, the background level represents the established background level for San Francisco Bay Region of 11 mg/kg (Duvergé, 2011).
[2] In order of priority, the screening level represents the Department of Toxic Substances Control (DTSC)-modified screening level (DTSC, 2020) followed by U.S. Environmental Protection Agency (USEPA) Regional Screening Level (RSL; USEPA, 2020).

References:
DTSC, 2020. Human Health Risk Assessment (HHRA) Note Number 3. June.
Duvergé, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region. December.
LBNL, 2009. Analysis of Background Distributions of Metals in Soil at Lawrence Berkeley National Laboratory. Revised April.
USEPA, 2020. Regional Screening Level (RSL) Summary Table (TR=1E-6, HQ=1). May.

Table A1
Summary of Soil Analytical Results
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Sample Date	Sample Depth	Sample Type	Metals				TPH	
				Arsenic	Copper	Lead	Zinc	Diesel	Motor Oil
RWQCB Residential ESLs				0.26	3,100	80	23,000	260	12,000
RWQCB Commercial/Industrial ESLs				0.31	47,000	320	350,000	1,200	180,000
RWQCB Construction Worker ESLs				0.98	14,000	160	110,000	1,100	54,000
B1	2/28/2019	0.0-0.5	Composite	**2.1**	3.9	**120**	17	<0.24	<1.3
B1N-0.5	2/28/2019	0.0-0.5	Discrete	---	---	**150**	---	---	---
B1S-0.5	2/28/2019	0.0-0.5	Discrete	---	---	58	---	---	---
B1E-0.5	2/28/2019	0.0-0.5	Discrete	---	---	**110**	---	---	---
B1W-0.5	2/28/2019	0.0-0.5	Discrete	---	---	64	---	---	---
B1	2/28/2019	1.5-2.0	Composite	**2.9**	4.6	6.2	18	---	---
B1N-2.0	2/28/2019	1.5-2.0	Discrete	---	---	4.5	---	---	---
B1S-2.0	2/28/2019	1.5-2.0	Discrete	---	---	9.5	---	---	---
B1E-2.0	2/28/2019	1.5-2.0	Discrete	---	---	8.0	---	---	---
B1W-2.0	2/28/2019	1.5-2.0	Discrete	---	---	6.4	---	---	---
B2	2/28/2019	0.0-0.5	Composite	**2.0**	3.2	60	60	<0.24	<1.3
B2	2/28/2019	1.5-2.0	Composite	**1.6**	3.3	5.8	98	---	---
B3	2/28/2019	0.0-0.5	Composite	**2.8**	3.1	**84**	20	<0.24	<1.3
B3N-0.5	2/28/2019	0.0-0.5	Discrete	---	---	**190**	---	---	---
B3S-0.5	2/28/2019	0.0-0.5	Discrete	---	---	48	---	---	---
B3E-0.5	2/28/2019	0.0-0.5	Discrete	---	---	47	---	---	---
B3W-0.5	2/28/2019	0.0-0.5	Discrete	---	---	**89**	---	---	---
B3	2/28/2019	1.5-2.0	Composite	**2.5**	3.9	5.6	22	---	---
B3N-2.0	2/28/2019	1.5-2.0	Discrete	---	---	5.7	---	---	---
B3S-2.0	2/28/2019	1.5-2.0	Discrete	---	---	11	---	---	---
B3E-2.0	2/28/2019	1.5-2.0	Discrete	---	---	20	---	---	---
B3W-2.0	2/28/2019	1.5-2.0	Discrete	---	---	5.8	---	---	---
B4	2/28/2019	0.0-0.5	Composite	**1.8**	3.6	24	19	<0.24	<1.3
B4	2/28/2019	1.5-2.0	Composite	**1.8**	3.8	6.6	19	---	---
B5	2/28/2019	0.0-0.5	Composite	**9.6**	4.2	25	26	<0.24	<1.3
B5	2/28/2019	1.5-2.0	Composite	**7.3**	3.7	4.6	20	---	---
B6	2/28/2019	0.0-0.5	Composite	**1.6**	4.0	60	23	8.4 A01, A52	85 A01, A57
B6	2/28/2019	1.5-2.0	Composite	**2.1**	3.5	6.4	22	---	---
B7	2/28/2019	0.0-0.5	Composite	**3.2**	50	38	160	<0.24	<1.3
B7	2/28/2019	1.5-2.0	Composite	**2.9**	7.1	8.6	47	---	---
B8	2/28/2019	0.0-0.5	Composite	**3.7**	4.8	19	22	1.3 J, A52	2.1 J, A57
B8	2/28/2019	1.5-2.0	Composite	**4.4**	4.1	5.8	19	---	---
B9	2/28/2019	0.0-0.5	Composite	**1.8**	3.8	8.9	19	1.3 J, A52	3.4 J, A57

Table A1
Summary of Soil Analytical Results
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Sample Date	Sample Depth	Sample Type	Metals				TPH	
				Arsenic	Copper	Lead	Zinc	Diesel	Motor Oil
RWQCB Residential ESLs				0.26	3,100	80	23,000	260	12,000
RWQCB Commercial/Industrial ESLs				0.31	47,000	320	350,000	1,200	180,000
RWQCB Construction Worker ESLs				0.98	14,000	160	110,000	1,100	54,000
B9	2/28/2019	1.5-2.0	Composite	**3.0**	4.3	12	20	---	---
B10	2/28/2019	0.0-0.5	Composite	**0.98**	3.2	6.1	19	1.3 J, A52	1.7 J, A57
B10	2/28/2019	1.5-2.0	Composite	**1.2**	3.4	4.4	17	---	---
B11	2/28/2019	0.0-0.5	Composite	**2.2**	4	11	20	<0.24	<1.3
B11	2/28/2019	1.5-2.0	Composite	**1.9**	3.5	5.1	19	---	---
B12	2/28/2019	0.0-0.5	Composite	**1.2**	2.9	10	15	<0.24	<1.3
B12	2/28/2019	1.5-2.0	Composite	**2.2**	3.3	6.9	24	NA	NA
B13	2/28/2019	0.0-0.5	Composite	**1.4**	2.8	70	17	NA	NA
Notes:				9.6	50.0	190.0	160.0		

Sample results reported in milligrams per kilogram (mg/kg).
Metals analyzed by USEPA Method 6010B.
TPH analyzed by USEPA Method 8015B.
TPH = total petroleum hydrocarbons.
Bolded value = exceedence of Residential ESL.
<0.24 = not detected above analytical laboratory Method Detection Limit (MDL).
--- = not analyzed or not established.
J = Estimated Value.
A01 = Detection and quantation limits were raised due to sample dilution.
A52 = Chromatogram not typical of diesel.
A57 = Chromatogram not typical of motor oil.
RWQCB ESL = San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (January 2019, Rev 1).

Table A2
Summary of Soil Analytical Results - PAHs
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Sample Date	Sample Depth (feet)	PAHs													
			Acenaphthene	Anthracene	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[a]pyrene	Benzo[g,h,i]perlyene	Chrysene	Dibenzo[a,h]anthracene	Fluoroanthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene
RWQCB Residential ESLs			3,600	18,000	1.1	1.1	11	0.11	NE	110	0.11	2,400	2,400	1.1	NE	1,800
RWQCB Commercial/Industrial ESLs			45,000	230,000	20	21	210	2.1	NE	2,100	2.1	30,000	30,000	21	NE	23,000
RWQCB Construction Worker ESLs			10,000	50,000	110	110	910	10	NE	9,100	11	6,700	6,700	110	NE	5,000
B1	2/28/2019	0.0-0.5	<0.0012	<0.0012	<0.0011	<0.00095	<0.0011	0.0020 J	<0.0011	<0.00097	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015
B2	2/28/2019	0.0-0.5	<0.0012	<0.0012	0.0012 J	0.0028 J	<0.0011	0.0031	<0.0011	0.0011 J	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015
B3	2/28/2019	0.0-0.5	<0.0012	<0.0012	0.0016 J	0.0034	<0.0011	0.0034	<0.0011	0.0016 J	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015
B4	2/28/2019	0.0-0.5	<0.0012	<0.0012	<0.0011	0.0019 J	<0.0011	0.0024 J	<0.0011	<0.00097	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015
B5	2/28/2019	0.0-0.5	0.026	0.13 A01	0.55 A01	0.49 A01	0.20 A01	**0.44 A01**	0.17 A01	0.59 A01	0.063	0.78 A01	0.013	0.18 A01	0.48 A01	0.85 A01
B6	2/28/2019	0.0-0.5	0.006	0.014	0.22 A01	0.33 A01	0.10 A01	**0.32 A01**	0.23 A01	0.25 A01	0.066 A01	0.19 A01	0.0012 J	0.20 A01	0.042	0.24 A01
B7	2/28/2019	0.0-0.5	0.0063	0.024	0.42 A01	0.66 A01	0.26 A01	**0.64 A01**	0.50 A01	0.49 A01	**0.17 A01**	0.31 A01	0.0019 J	0.45 A01	0.075 A01	0.39 A01
B8	2/28/2019	0.0-0.5	<0.0012	<0.0012	0.0095	0.19	0.0054	0.014	0.0097	0.011	0.0016 J	0.0092	<0.0011	0.0078	0.0025 J	0.012
B9	2/28/2019	0.0-0.5	<0.0012	<0.0012	0.0021 J	<0.00095	<0.0011	0.0043 J	0.0019 J	0.0023 J	<0.00099	0.0019 J	<0.0011	0.0015 J	<0.0012	0.0022 J
B10	2/28/2019	0.0-0.5	<0.0012	<0.0012	<0.0011	<0.00095	<0.0011	0.0019 J	<0.0011	<0.00097	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015
B11	2/28/2019	0.0-0.5	0.0050	0.0098	0.17 A01	0.21 A01	0.064	**0.19 A01**	0.091 A01	0.20 A01	0.031	0.17 A01	<0.0011	0.089 A01	0.028	0.20 A01
B12	2/28/2019	0.0-0.5	<0.0012	<0.0012	<0.0011	<0.00095	<0.0011	<0.00095	<0.0011	<0.00097	<0.00099	<0.0014	<0.0011	<0.00092	<0.0012	<0.0015

Notes:
Sample results reported in milligrams per kilogram (mg/kg).
PAHs analyzed by USEPA Method 8270C.
Bolded value = exceedence of Residential ESL.
<0.0012 = not detected above analytical laboratory Method Detection Limit (MDL).
PAHs = Polycyclic Aromatic Hydrocarbons.
NA = not analyzed.
J = Estimated Value.
NE = ESL not established.
A01 = Detection and quantation limits were raised due to sample dilution.
RWQCB ESL = San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (January 2019, Rev 1).

Table A3
Metals in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Shot Observed	XRF Reading	Notes	Antimony		Arsenic		Copper		Lead		Zinc	
		(feet bgs)	*(feet bgs)*	*(ppm)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
Residential Screening Level						31		11		3,100		80		23,000	
Screening Level Source						USEPA RSLs		Background		USEPA RSLs		HHRA Note 3		USEPA RSLs	
West Meadow															
WM-C-1-0.5'	5/13/2020	0 - 0.5		222		**1.31**	J	**2.63**		**12.3**		**181**		**23.9**	
WM-C-1-2'	5/13/2020	1.5 - 2		54		-		-		-		**36.9**		-	
WM-C-2-0.5'	5/13/2020	0 - 0.5		202		**0.989**	J	**2.13**	J	**6.91**		**182**		**15.3**	
WM-C-2-0.5' DUP	5/13/2020	0 - 0.5		202	Duplicate	**1.57**	J	**2.45**		**7.54**		**156**		**13.6**	
WM-C-2-2'	5/13/2020	1.5 - 2		26		-		-		-		**11.1**		-	
WM-C-3-0.5'	5/13/2020	0 - 0.5		244		**1.23**	J	**2.14**	J	**8.38**		**161**		**53.6**	
WM-C-3-2'	5/13/2020	1.5 - 2		13		-		-		-		**23.5**		-	
WM-C-4-0.5'	5/13/2020	0 - 0.5		368		**0.683**	J	**1.92**	J	**6.96**		**141**		**15**	
WM-C-4-2'	5/13/2020	1.5 - 2		27		-		-		-		**12.6**		-	
WM-C-5-0.5'	5/13/2020	0 - 0.5		95		**0.568**	J	**1.58**	J	**77.7**	O1	**76.9**	O1	**78.5**	O1
WM-C-6-0.5'	5/14/2020	0 - 0.5		30		**0.897**	J,J6	**2.16**		**4.92**		**10.6**		**19.7**	
WM-C-7-0.5'	5/14/2020	0 - 0.5		13		**0.785**	J	<2.51		**47.3**		**8.57**		**59.1**	
WM-C-8-0.5'	5/14/2020	0 - 0.5		31		**0.879**	J	<2.40		**18.1**		**15.0**		**31.0**	
WM-C-9A-1'	5/15/2020	0.5 - 1		105		**0.727**	J	**1.55**	J	**5.61**		**71.2**		**18.6**	
WM-C-10-0.5'	5/14/2020	0 - 0.5		-		**1.65**	J	**3.81**		**9.09**		**27.0**		**26.6**	
WM-C-11-0.5'	5/13/2020	0 - 0.5		45		**1.47**	J	**10.7**		**7.86**		**29.3**		**24.3**	
WM-DG-1-0.5'	5/13/2020	0 - 0.5		241		**1.41**	J	**2.69**		**8.57**		**188**		**16.4**	
WM-DG-1-2'	5/13/2020	1.5 - 2		9		-		-		-		**15.9**		-	
WM-DG-2-0.5'	5/13/2020	0 - 0.5		168		<2.42		**2.74**		**10.3**		**6.16**		**12.9**	
WM-DG-3-0.5'	5/13/2020	0 - 0.5		90		**0.833**	J	**1.28**	J	**5.66**		**51.1**		**23.0**	
WM-DG-4-0.5'	5/13/2020	0 - 0.5		30		<2.42		**1.76**	J	**16.2**		**19.8**		**28.3**	
WM-DG-5-0.5'	5/13/2020	0 - 0.5		19		<2.44		**1.53**	J	**13.9**		**38.1**		**23.1**	
WM-DG-6-0.5'	5/13/2020	0 - 0.5		311		<2.22		**2.25**		**11.0**		**27.0**		**18.5**	
WM-DG-7-0.5'	5/13/2020	0 - 0.5		120		**0.721**	J	**1.77**	J	**7.01**		**116**		**17.0**	
WM-DG-7-2'	5/13/2020	1.5 - 2		29		-		-		-		**12.1**		-	
WM-DG-8-0.5'	5/13/2020	0 - 0.5		59		**0.637**	J	**1.43**	J	**9.12**		**55.7**		**21.0**	
WM-DG-9-0.5'	5/13/2020	0 - 0.5		28		<2.31		**1.52**	J	**299**		**17.5**		**91.1**	
WM-DG-10-0.5'	5/13/2020	0 - 0.5		46		**0.640**	J	**2.78**		**10.9**		**28.7**		**25.0**	
WM-DG-11-0.5'	5/14/2020	0 - 0.5	0.5-2	59		**2.01**	J	**2.72**	B	**263**		**76.0**		**689**	
WM-DG-11-0.5'-DUP	5/14/2020	0 - 0.5		59	Duplicate	**1.55**	J	**2.13**	B,J	**14.9**		**40.9**		**75.8**	
WM-DG-11A-1'	5/15/2020	0.5 - 1		16		<2.20		**1.77**	J	**9.01**		**11.5**		**15.6**	
WM-DG-12-0.5'	5/14/2020	0 - 0.5		64		**1.58**	J	**1.65**	B,J	**10.8**		**39.1**		**51.6**	
WM-DG-13-1.5'	5/14/2020	0 - 0.5	1-2	1,095		**41.7**	J	**15.9**	B,J	**6,320**		**1,230**		**28,500**	
WM-DG-13-2'	5/14/2020	1.5 - 2		33		**3.33**		**3.61**	B	**214**		**49.0**		**2,770**	
WM-DG-14-0.5'	5/14/2020	0 - 0.5		19		**0.817**	J	**2.82**	B	**8.28**		**13.8**		**40.8**	
WM-DG-15-0.5'	5/14/2020	0 - 0.5		23		**1.80**	J	**2.17**	B,J	**76.9**		**23.8**		**303**	
North Orchard															
NO-1-0.5'	5/14/2020	0 - 0.5		225		**3.54**		**3.05**	B	**6.32**		**265**		**24.0**	
NO-1-2'	5/14/2020	1.5 - 2		25		-		-		-		**6.55**		-	
NO-2-0.5'	5/14/2020	0 - 0.5		119		**1.65**	J	**1.94**	B,J	**8.14**		**107**		**17.6**	
NO-2-2'	5/14/2020	1.5 - 2		28		-		-		-		**5.58**		-	
NO-3-0.5'	5/14/2020	0 - 0.5		863		**6.94**		**4.77**	B	**11.3**		**690**		**21.5**	
NO-3-2'	5/14/2020	1.5 - 2		35		-		-		-		**45.3**		-	
NO-4-0.5'	5/14/2020	0 - 0.5		211		**2.03**	J	**1.60**	B,J	**8.16**		**180**		**15.7**	
NO-4-2'	5/14/2020	1.5 - 2		16		-		-		-		**3.97**		-	
NO-5-0.5'	5/14/2020	0 - 0.5		10		**1.08**	J	**1.57**	B,J	**50.8**		**40.0**		**44.2**	
NO-6-0.5'	5/14/2020	0 - 0.5		118		**1.97**	J	**2.32**	B,J	**23.2**		**144**		**41.8**	
NO-6-2'	5/14/2020	1.5 - 2		14		-		-		-		**13.9**		-	
NO-7-0.5'	5/14/2020	0 - 0.5		43		**0.926**	J	**1.91**	B,J	**8.08**		**29.8**		**24.8**	
NO-8-0.5'	5/15/2020	0 - 0.5		31		**0.928**	J	<2.46		**18.9**		**18.5**		**23.1**	
NO-9-0.5'	5/14/2020	0 - 0.5		39		**1.51**	J	**1.70**	B,J	**14.4**		**20.0**		**26.7**	
NO-10-0.5'	5/15/2020	0 - 0.5		17		<2.33		<2.33		**18.0**		**14.0**		**27.5**	
NO-11-0.5'	5/15/2020	0 - 0.5		18		**1.04**	J	**0.655**	J	**15.0**		**14.5**		**26.8**	
NO-12-0.5'	5/15/2020	0 - 0.5		21		**0.718**	J	<2.42		**17.1**		**10.5**		**49.8**	
East Meadow															
EM-1-0.5'	5/12/2020	0 - 0.5		119		**2.34**		**2.42**		**63.1**		**138**		**69.6**	
EM-1-2'	5/12/2020	1.5 - 2		39		-		-		-		**22.1**		-	
EM-2-0.5'	5/12/2020	0 - 0.5		153		**1.93**	J	**2.42**		**24.6**		**182**		**31.0**	
EM-2-2'	5/12/2020	1.5 - 2		15		-		-		-		**13.4**		-	
EM-3-0.5'	5/12/2020	0 - 0.5		219		**2.87**		**3.23**		**16.6**		**203**		**20.4**	
EM-3-2'	5/12/2020	1.5 - 2		24		-		-		-		**51.3**		-	
EM-4-1.5'	5/12/2020	1 - 1.5		166		**5.15**		**4.58**		**15.8**		**164**		**25.3**	
EM-4-2'	5/12/2020	1.5 - 2		47		-		-		-		**61.3**		-	
EM-5-0.5'	5/12/2020	0 - 0.5		139		**2.51**		**3.21**		**19.1**		**115**		**26.4**	
EM-5-2'	5/12/2020	1.5 - 2		95		-		-		-		**53.6**		-	
EM-6-0.5'	5/12/2020	0 - 0.5		372		**3.46**		**3.91**		**19.9**		**264**		**28.8**	
EM-6-2'	5/12/2020	1.5 - 2		83		-		-		-		**17.9**		-	
EM-7-0.5'	5/12/2020	0 - 0.5		758		**17.0**		**9.58**		**21.1**		**752**		**30.7**	
EM-7-2'	5/12/2020	1.5 - 2		46		-		-		-		**117**		-	
EM-8-1'	5/12/2020	0.5 - 1		549		**11.8**		**8.69**		**14.7**		**717**		**31.1**	
EM-8-2'	5/12/2020	1.5 - 2		94		-		-		-		**140**		-	
EM-9-0.5'	5/12/2020	0 - 0.5		1,227		**5.46**		**6.71**		**10.7**		**1,140**		**22.1**	
EM-9-2'	5/12/2020	1.5 - 2		168		-		-		-		**81.9**		-	

Table A3
Metals in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Shot Observed	XRF Reading	Notes	Antimony		Arsenic		Copper		Lead		Zinc	
		(feet bgs)	*(feet bgs)*	*(ppm)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
Residential Screening Level						31		11		3,100		80		23,000	
EM-10-0.5'	5/12/2020	0 - 0.5		2,973		**6.07**		**8.44**		**12.6**		**1,670**		**29.0**	
EM-10-2'	5/12/2020	1.5 - 2		15		-		-		-		**34.1**		-	
EM-11-0.5'	5/12/2020	0 - 0.5		569		**3.78**		**7.16**		**24.4**		**856**		**36.2**	
EM-11-2'	5/12/2020	1.5 - 2		94		-		-		-		**140**		-	
EM-12-0.5'	5/14/2020	0 - 0.5		31		<2.44		**3.04**	B	**38.6**		**9.15**		**98.3**	
EM-13-0.5'	5/15/2020	0 - 0.5		24		**0.815**	J	**0.554**	J	**9.98**		**11.2**		**25.4**	
EM-14-0.5'	5/14/2020	0 - 0.5		38		**1.58**	J	**2.92**	B	**12.5**		**33.0**		**44.5**	
EM-14-0.5'-DUP	5/14/2020	0 - 0.5		38	Duplicate	**2.14**	J	**2.80**	B	**14.0**		**32.5**		**55.3**	
EM-15-0.5'	5/15/2020	0 - 0.5		26		**1.12**	J	**1.72**	J	**13.0**		**16.1**		**33.0**	
EM-16-0.5'	5/15/2020	0 - 0.5		42		**1.00**	J	**1.33**	J	**14.0**		**24.6**		**37.3**	
EM-17-0.5'	5/15/2020	0 - 0.5		47		**1.50**	J	**1.13**	J	**13.8**		**40.3**		**35.0**	
EM-18-0.5'	5/15/2020	0 - 0.5		39		**3.29**		**2.35**		**11.2**		**44.5**		**30.5**	
EM-19-0.5'	5/14/2020	0 - 0.5		167		**3.13**		**3.57**	B	**12.7**		**116**		**46.0**	
EM-19-2'	5/14/2020	1.5 - 2		64		-		-		-		**38.4**		-	
EM-20-0.5'	5/15/2020	0 - 0.5		58		<2.53		**2.07**	J	**20.5**		**95.2**		**33.4**	
EM-20-2'	5/15/2020	1.5 - 2		10		-		-		-		**9.26**		-	
EM-21-0.5'	5/14/2020	0 - 0.5		776		**10.0**		**6.12**		**7.16**		**768**		**28.7**	
EM-21-0.5'-DUP	5/14/2020	0 - 0.5		776	Duplicate	**6.85**		**5.65**	B	**7.33**		**769**		**30.6**	
EM-21-2'	5/14/2020	1.5 - 2		17		-		-		-		**9.52**		-	
EM-22-0.5'	5/15/2020	0 - 0.5		100		<2.28		**2.39**		**12.3**		**92.6**		**22.8**	
EM-22-2'	5/15/2020	1.5 - 2		17		-		-		-		**25.9**		-	
EM-23-0.5'	5/15/2020	0 - 0.5		29		**0.932**	J	**1.24**	J	**12.8**		**10.7**		**26.0**	
EM-24-0.5'	5/15/2020	0 - 0.5		33		**0.886**	J	**0.686**	J	**9.50**		**9.18**		**26.8**	
EM-25-0.5'	5/15/2020	0 - 0.5		30		**0.786**	J	**0.810**	J	**12.2**		**10.3**		**28.7**	
EM-26-0.5'	5/15/2020	0 - 0.5		19		**0.656**	J	**1.02**	J	**11.7**		**10.8**		**25.1**	
EM-27-0.5'	5/15/2020	0 - 0.5		34		**1.02**	J	**0.823**	J	**13.6**		**6.12**		**26.4**	
EM-28-0.5'	5/15/2020	0 - 0.5		29		**0.813**	J	**0.865**	J	**14.4**		**14.3**		**31.9**	
EM-29-0.5'	5/15/2020	0 - 0.5		31		**0.720**	J	**1.02**	J	**10.8**		**17.8**		**36.8**	
EM-30-0.5'	5/15/2020	0 - 0.5		31		<2.25		**2.52**		**21.9**		**18.0**		**24.1**	
EM-31-0.5'	5/15/2020	0 - 0.5		33		<2.30		**2.07**	J	**9.94**		**15.4**		**19.1**	
EM-32-0.5'	5/15/2020	0 - 0.5		18		<2.34		**2.01**	J	**13.8**		**37.4**		**23.0**	
EM-33-0.5'	5/15/2020	0 - 0.5		17		<2.25		**2.23**	J	**8.74**		**12.3**		**19.0**	

Notes:
Metals analyzed using USEPA Method 6010B.
Analytes detected above laboratory reporting limit are **emboldened**.
Analytes detected above Residential Screening Level are highlighted.
Background = Duverge, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region. December.
HHRA Note 3 = DTSC, 2019. Human Health Risk Assessment (HHRA) Note Number 3. April.
USEPA RSLs = USEPA, 2020. Regional Screening Level (RSL) Summary Table (TR=1E-6, HQ=1). May.
DTSC = California Environmental Protection Agency, Department of Toxic Substances Control.
USEPA = United States Environmental Protection Agency.
bgs = Below ground surface.
mg/kg = Milligrams per kilogram.
- = Not analyzed.
B = The same analyte is found in the associated blank.
J = The identification of the analyte is acceptable; the reported value is an estimate.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1 = The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Table A4
Polycyclic Aromatic Hydrocarbons in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Clay Target Fragments Observed	Notes	ANTHRACENE	ACENAPHTHENE	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	PHENANTHRENE	PYRENE	NAPHTHALENE	1-METHYL NAPHTHALENE	2-METHYL NAPHTHALENE
		(feet bgs)	*(feet bgs)*		*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
Residential Screening Level					17,000	3,300	1.1	0.11	1.1	NE	11	110	0.028	2,400	2,300	1.1	NE	1,800	2.0	9.9	190
West Meadow																					
WM-C-5-0.5'	05/13/2020	0 - 0.5			<0.00645	<0.00645	**0.00425** J	**0.00642** J	**0.00668**	**0.00606** J	**0.00326** J	**0.00552** J	<0.00645	**0.00445** J	<0.00645	**0.00467** J	<0.00645	**0.00486** J	<0.0215	<0.0215	<0.0215
WM-C-6-0.5'	05/14/2020	0 - 0.5			<0.00644	<0.00644	<0.00644	<0.00644	**0.00244** J	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.0215	<0.0215	<0.0215
WM-C-7-0.5'	05/14/2020	0 - 0.5			<0.00752	<0.00752	**0.00232** J	**0.00283** J	**0.00352** J	**0.00295** J	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	<0.00752	**0.00292** J	<0.0251	<0.0251	<0.0251
WM-C-8-0.5'	05/14/2020	0 - 0.5			**0.0273**	**0.0102**	**0.216**	**0.267**	**0.323**	**0.176**	**0.081**	**0.261**	**0.0532**	**0.340**	**0.00293** J	**0.155**	**0.102**	**0.309**	<0.0240	<0.0240	<0.0240
WM-C-8-2'	05/14/2020	1.5 - 2			<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741	<0.0247	<0.0247	<0.0247
WM-C-9A-1'	05/15/2020	0.5 - 1	0.5-1.5		**0.231**	**0.0866**	**5.64**	**10.4**	**11.5**	**4.88**	**2.79**	**6.44**	**1.85**	**4.22**	**0.0319** J	**4.99**	<0.215	**0.828**	**4.68**	<0.215	<0.215
WM-C-9-2'	05/14/2020	1.5 - 2			<0.00717	<0.00717	**0.0332**	**0.0608**	**0.0593**	**0.0545**	**0.0232**	**0.0412**	**0.0145**	**0.0272**	<0.00717	**0.0446**	**0.00582** J	**0.0319**	<0.0239	<0.0239	<0.0239
WM-C-10-0.5'	05/14/2020	0 - 0.5			**0.0115**	**0.00499** J	**0.121**	**0.185**	**0.192**	**0.131**	**0.0803**	**0.172**	**0.0395**	**0.162**	<0.00706	**0.112**	**0.0508**	**0.155**	<0.0235	<0.0235	<0.0235
WM-C-10-2'	05/14/2020	1.5 - 2			**0.0258**	**0.00645** J	**0.175**	**0.243**	**0.298**	**0.179**	**0.0819**	**0.217**	**0.0506**	**0.268**	**0.00249** J	**0.153**	**0.0736**	**0.229**	<0.0217	<0.0217	<0.0217
WM-C-11-0.5'	05/13/2020	0 - 0.5			<0.00640	<0.00640	**0.00257** J	**0.00383** J	**0.00553** J	**0.00419** J	<0.00640	**0.00307** J	<0.00640	**0.00273** J	<0.00640	**0.00306** J	<0.00640	**0.0028** J	<0.0213	<0.0213	<0.0213
WM-C-11-2'	05/13/2020	1.5 - 2			**0.56**	**0.23**	**2.68**	**2.56**	**2.88**	**1.42**	**0.772**	**3.02**	**0.468**	**3.81**	**0.123**	**1.25**	**2.43**	**4.18**	**0.0112** J	**0.0106** J	**0.0215** J
WM-DG-1-0.5'	05/13/2020	0 - 0.5			<0.00687	<0.00687	<0.00687	<0.00687	0.00247 J	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.00687	<0.0229	<0.0229	<0.0229
WM-DG-2-0.5'	05/13/2020	0 - 0.5			<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.00725	<0.0242	<0.0242	<0.0242
WM-DG-3-0.5'	05/13/2020	0 - 0.5			<0.00676	<0.00676	<0.00676	<0.00676	0.00267 J	**0.00215** J	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.00676	<0.0225	<0.0225	<0.0225
WM-DG-4-0.5'	05/13/2020	0 - 0.5			<0.00726	<0.00726	<0.00726	**0.0027** J	**0.00347** J	**0.00283** J	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.0242	<0.0242	<0.0242
WM-DG-5-0.5'	05/13/2020	0 - 0.5			<0.00733	<0.00733	<0.00733	**0.00239** J	**0.00287** J	**0.00256** J	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.00733	<0.0244	<0.0244	<0.0244
WM-DG-6-0.5'	05/13/2020	0 - 0.5			**0.131**	**0.0763**	**2.85**	**3.61**	**3.88**	**2.27**	**1.31**	**3.61**	**0.836**	**3.07**	**0.0173**	**2.03**	**0.633**	**3.23**	**0.00974** J	**0.0111** J	**0.0133** J
WM-DG-6-2'	05/13/2020	1.5 - 2			**0.185**	**0.114**	**5.43**	**7.56**	**7.92**	**4.06**	**1.85**	**7.05**	**0.238**	**5.06**	**0.0248**	**3.58**	**0.942**	**6.73**	**0.0141** J	**0.0162** J	**0.0194** J
WM-DG-7-0.5'	05/13/2020	0 - 0.5			<0.00639	<0.00639	**0.00345** J	**0.00558** J	**0.00635** J	**0.00506** J	<0.00639	**0.00452** J	<0.00639	**0.00399** J	<0.00639	**0.00419** J	<0.00639	**0.00411** J	<0.0213	<0.0213	<0.0213
WM-DG-8-0.5'	05/13/2020	0 - 0.5			<0.00730	<0.00730	**0.0529**	**0.107**	**0.113**	**0.0893**	**0.0331**	**0.0669**	**0.0252**	**0.0409**	<0.00730	**0.0754**	**0.00898**	**0.0444**	<0.0243	<0.0243	<0.0243
WM-DG-9-0.5'	05/13/2020	0 - 0.5			<0.00694	<0.00694	<0.00694	**0.00271** J	**0.0034** J	**0.00272** J	<0.00694	<0.00694	<0.00694	<0.00694	<0.00694	**0.00213** J	<0.00694	<0.00694	<0.0231	<0.0231	<0.0231
WM-DG-10-0.5'	05/13/2020	0 - 0.5			<0.00690	<0.00690	**0.00254** J	**0.00254** J	**0.00298** J	<0.00690	<0.00690	**0.00297** J	<0.00690	**0.00366** J	<0.00690	<0.00690	<0.00690	**0.00373** J	<0.0230	<0.0230	<0.0230
WM-DG-11-0.5'	05/14/2020	0 - 0.5	0.5-1		<0.0242	<0.0242	**0.041**	**0.0608**	**0.0665**	**0.0445**	0.0224 J	**0.0535**	**0.0115** J	**0.0469**	<0.0242	**0.0371**	**0.0158** J	**0.0477**	<0.0804	<0.0804	<0.0804
WM-DG-11-0.5'-DUP	05/14/2020	0 - 0.5		Duplicate	**0.986**	**0.651**	**8.45**	**10.5**	**12.2**	**3.35**	**4.00**	**9.86**	**2.38**	**11.1**	**0.260**	**3.61**	**4.14**	**11.8**	**0.321**	**0.0762**	**0.11**
WM-DG-11A-1'	05/15/2020	0.5 - 1			**0.00491** J	<0.00659	**0.0544** J3	**0.0886** J3,J6	**0.0813** J3,J6	**0.0751** J3	**0.0336** J3	**0.0709** J3	**0.0196**	**0.0595**	<0.00659	**0.0637** J3	<0.0220	**0.0152**	**0.061**	<0.0220	<0.0220
WM-DG-11-2'	05/14/2020	1.5 - 2			<0.00716	<0.00716	**0.00212** J	**0.00258** J	**0.00271** J	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	<0.00716	**0.00716** J	<0.0239	<0.0239
WM-DG-12-0.5'	05/14/2020	0 - 0.5			**0.0278**	**0.0132**	**0.304**	**0.354**	**0.415**	**0.243**	**0.12**	**0.365**	**0.0661**	**0.347**	**0.00273** J	**0.203**	**0.13**	**0.498**	<0.0222	<0.0222	<0.0222
WM-DG-12-2'	05/14/2020	1.5 - 2			<0.00675	<0.00675	**0.0100**	**0.00997**	**0.0102**	**0.00534** J	**0.00445** J	**0.0126**	<0.00675	**0.014**	<0.00675	**0.00474** J	**0.00682**	**0.0159**	<0.0225	<0.0225	<0.0225
WM-DG-13-1.5'	05/14/2020	1 - 1.5	0.5-2		**0.252**	**0.113**	**6.42**	**11.7**	**14.8**	**7.52**	**4.02**	**8.75**	**4.45**	**5.74**	**0.0241**	**6.25**	**0.901**	**5.68**	**0.0462**	**0.0166** J	**0.0201** J
WM-DG-13-2'	05/14/2020	1.5 - 2			**0.00609** J	<0.00670	**0.19**	**0.358**	**0.393**	**0.365**	**0.123**	**0.257**	**0.105**	**0.123**	<0.00670	**0.292**	**0.0186**	**0.158**	**0.00491** J	<0.0223	<0.0223
WM-DG-14-0.5'	05/14/2020	0 - 0.5			<0.00659	<0.00659	**0.00997**	**0.0149**	**0.0169**	**0.0138**	**0.00589** J	**0.0122**	**0.00377** J	**0.0108**	<0.00659	**0.0107**	**0.00295** J	**0.0124**	<0.0220	<0.0220	<0.0220
WM-DG-15-0.5'	05/14/2020	0 - 0.5			<0.00686	<0.00686	**0.00482** J	**0.00658** J	**0.00832**	**0.00645** J	**0.00264** J	**0.00575** J	<0.00686	**0.00552** J	<0.00686	**0.00486** J	<0.00686	**0.0065** J	<0.0229	<0.0229	<0.0229
North Orchard																					
NO-3-0.5'	05/14/2020	0 - 0.5			<0.00726	<0.00726	<0.00726	<0.00726	0.00191 J	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.00726	<0.0242	<0.0242	<0.0242
NO-4-0.5'	05/14/2020	0 - 0.5			<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.00700	<0.0233	<0.0233	<0.0233
NO-6-0.5'	05/14/2020	0 - 0.5			<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.00786	<0.0262	<0.0262	<0.0262
East Meadow																					
EM-1-0.5'	05/12/2020	0 - 0.5			<0.00688	<0.00688 J3	<0.00688	<0.00688	**0.00228** J	<0.00688	<0.00688 J3	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.00688	<0.0229 J3	<0.0229 J3	<0.0229 J3
EM-2-0.5'	05/12/2020	0 - 0.5			<0.00693	<0.00693	**0.00233** J	**0.00267** J	**0.00508** J	**0.00326** J	<0.00693	**0.0028** J	<0.00693	**0.00337** J	<0.00693	**0.00232** J	<0.00693	**0.00292** J	<0.0231	<0.0231	<0.0231
EM-3-0.5'	05/12/2020	0 - 0.5			<0.00690	<0.00690	<0.00690	<0.00690	**0.00324** J	**0.00258** J	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.00690	<0.0230	<0.0230	<0.0230
EM-4-1.5'	05/12/2020	1 - 1.5			<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.00656	<0.0219	<0.0219	<0.0219
EM-5-0.5'	05/12/2020	0 - 0.5			<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.00647	<0.0216	<0.0216	<0.0216
EM-6-0.5'	05/12/2020	0 - 0.5			<0.00671	<0.00671	<0.00671	<0.00671	**0.00332** J	**0.00223** J	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.0224	<0.0224	<0.0224
EM-7-0.5'	05/12/2020	0 - 0.5			<0.00663	<0.00663	<0.00663	<0.00663	**0.00224** J	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.0221	<0.0221	<0.0221
EM-8-1'	05/12/2020	0.5 - 1			<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.00652	<0.0217	<0.0217	<0.0217
EM-9-0.5'	05/12/2020	0 - 0.5			<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.00641	<0.0214	<0.0214	<0.0214
EM-10-0.5'	05/12/2020	0 - 0.5	0-1.5		<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.00633	<0.0211	<0.0211	<0.0211
EM-11-0.5'	05/12/2020	0 - 0.5			<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	**0.0114** J	<0.0236	**0.0102** J

Table A4
Polycyclic Aromatic Hydrocarbons in Soil
Pogonip Farm and Garden
Santa Cruz, California

Sample ID	Date	Sample Depth	Depth Clay Target Fragments Observed	Notes	ANTHRACENE	ACENAPHTHENE	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	PHENANTHRENE	PYRENE	NAPHTHALENE	1-METHYL NAPHTHALENE	2-METHYL NAPHTHALENE
		(feet bgs)	*(feet bgs)*		*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
Residential Screening Level					17,000	3,300	1.1	0.11	1.1	NE	11	110	0.028	2,400	2,300	1.1	NE	1,800	2.0	9.9	190
EM-21-0.5'	05/14/2020	0 - 0.5			<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.00646	<0.0215	<0.0215	<0.0215
EM-21-0.5'-DUP	05/14/2020	0 - 0.5		Duplicate	<0.00650	<0.00650	<0.00650	<0.00650	**0.00183** J	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.00650	<0.0217	<0.0217	<0.0217

Notes:
PAHs analyzed using USEPA Method 8270C-SIM.
Analytes detected above laboratory reporting limit are **emboldened**.
Analytes detected above Residential Screening Level are highlighted.
Residential Screening Levels are based on HHRA Note 3 values.
bgs = Below ground surface.
mg/kg = Milligrams per kilogram.
NE = Not Established.
PAHs = Polycyclic Aromatic Hydrocarbons.
SIM = Selective Ion Mode.
HHRA Note 3 = DTSC, 2019. Human Health Risk Assessment (HHRA) Note Number 3. April.
DTSC = California Environmental Protection Agency, Department of Toxic Substances Control.
J = The identification of the analyte is acceptable; the reported value is an estimate.
J3 = The associated batch QC was outside the established quality control range for precision.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Table 1

Summary of Soil Analytical Results

Pogonip Access Trail Evaluation

333 Golf Club Dr. Santa Cruz

All soil results are in milligrams per Kilogram (mg/Kg)

Sample Information			Lab Results
Sample Date	**Sample ID**	**Depth** (inches below ground surface)	**Total Lead Concentrations** (mg/kg)
March 11, 2021	B-1	surface	**13.9**
		18"	**5.68**
	B-2	surface	**42.5**
		18"	**7.61**
	B-3	surface	**183**
		18"	**6.54**
	B-4	surface	**208**
		18"	**10.6**
	B-5	surface	**8.2**
		18"	**5.74**
	B-6	surface	**37.5**
		18"	**9.61**
	B-7	surface	**19**
		18"	**15.2**
	B-8	surface	**158**
		18"	**5.25**
	B-9	surface	**78**
		18"	**7.16**
	B-10	surface	**51.6**
		18"	**7.32**
	B-11	surface	**33.3**
		18"	**5.06**
	B-12	surface	**14.9**
		18"	**7**
Environmental Screening Levels (ESLs) **Residential / Commercial Land Uses (Construction Worker)**			**80 / 320 (160)**

Notes:

Environmental Screening Levels (ESLs): Regional Water Quality Control Board (San Francisco Bay Region) guideline document: *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater* (Final version, 2019). The ESLs are intended to provide quantitative risk-based guidance on whether further assessment or remediation of contamination is warranted <**https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/new/ESL_Summary_Tables_24Jan19_Rev1.pdf** >

158	= **green-shaded cell** indicates detected concentration exceeds the ESL threshold limit for a residential land use
320	= **red-shaded cell** indicates detected concentration exceeds the ESL threshold limit for a residential land use

Weber,Hayes and Assoicates

B

CERTIFIED ANALYTICAL REPORTS

Date of Report: 03/17/2023

Matt Paulus

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Client Project:	IMK808
BCL Project:	Soil Samples - Dry weight
BCL Work Order:	2304623
Invoice ID:	B471672

Enclosed are the results of analyses for samples received by the laboratory on 3/7/2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Eli Velazquez
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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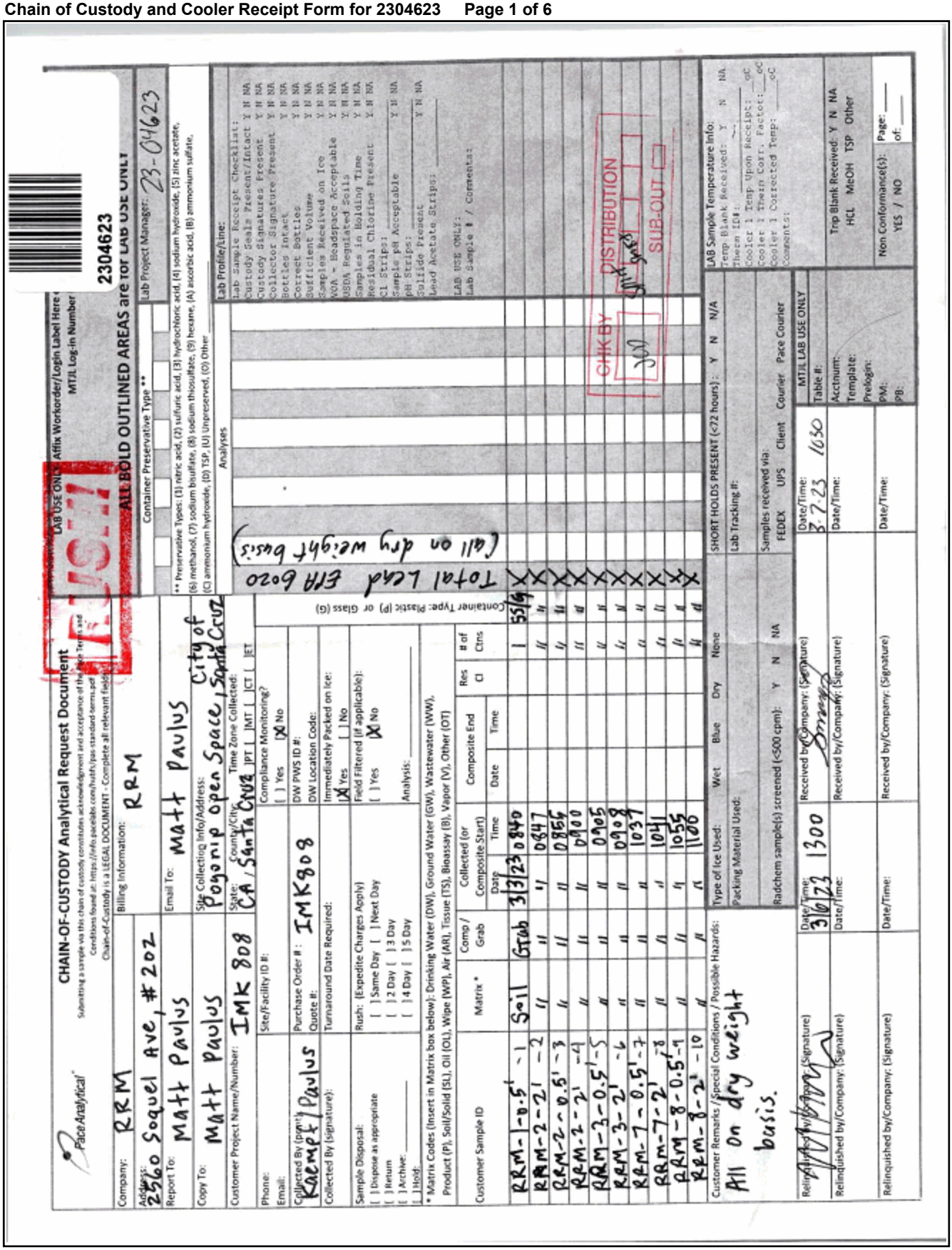


CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields.

LAB USE ONLY - Affix Workorder/Login Label Here

MT/L Log-in Number: 2304623

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Company: RRM

Billing Information: RRM

Address: 2560 Soquel Ave, #202

Report To: Matt Paulus

Email To: Matt Paulus

Copy To: Matt Paulus

Site Collection Info/Address: Pogonip open Space, City of Santa Cruz

Customer Project Name/Number: IMK 808

State: CA / County/City: Santa Cruz Time Zone Collected: [ ]PT [ ]MT [ ]CT [ ]ET

Phone:

Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

Collected By (print): Kacmek/Paulus

Purchase Order # : IMK808

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold:

Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day

Field Filtered (if applicable): [ ] Yes [X] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	Preservative Type **	Total Lead ERA 6020 (all on dry weight basis)	Analyses
RRM-1-0.5'-1	Soil	Grab	3/3/23	0840				1	5/G		X	
RRM-2-2'-2	"	"	"	0847				"	"		X	
RRM-2-0.5'-3	"	"	"	0856				"	"		X	
RRM-2-2'-4	"	"	"	0900				"	"		X	
RRM-3-0.5'-5	"	"	"	0905				"	"		X	
RRM-3-2'-6	"	"	"	0908				"	"		X	
RRM-7-0.5'-7	"	"	"	1039				"	"		X	
RRM-7-2'-8	"	"	"	1041				"	"		X	
RRM-8-0.5'-9	"	"	"	1055				"	"		X	
RRM-8-2'-10	"	"	"	1100				"	"		X	

Customer Remarks / Special Conditions / Possible Hazards: All on dry weight basis.

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Project Manager: 23-04623

Container Preservative Type **

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:

Lab Sample # / Comments:

CHK BY DISTRIBUTION SUB-OUT

LAB Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: _____

Cooler 1 Temp Upon Receipt: ___oC

Cooler 1 Therm Corr. Factor: ___oC

Cooler 1 Corrected Temp: ___oC

Comments:

MT/L LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

Relinquished by/Company: (Signature) Date/Time: 3/6/23 1300

Received by/Company: (Signature)

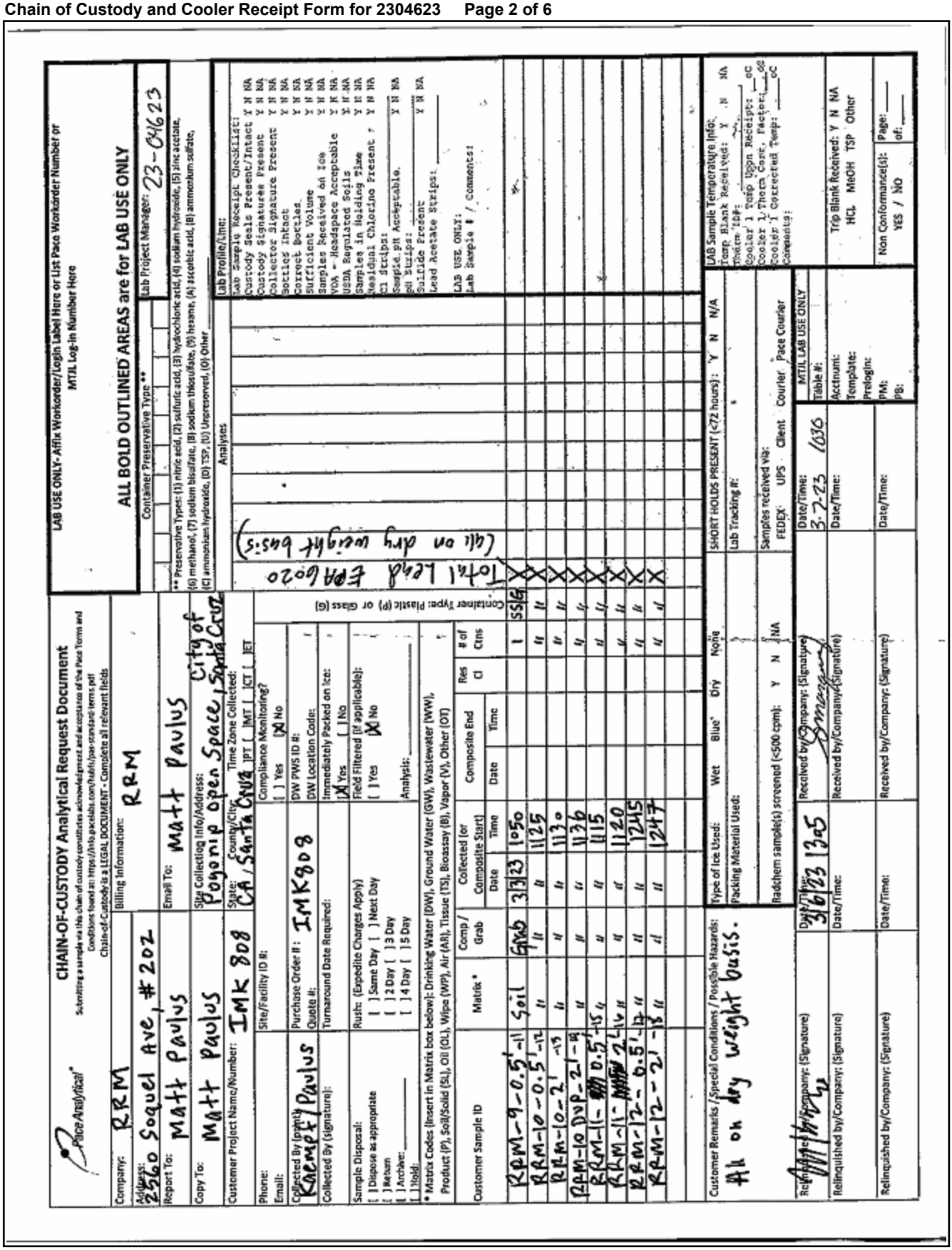
Relinquished by/Company: (Signature) Date/Time:

Received by/Company: (Signature) Date/Time:

Relinquished by/Company: (Signature) Date/Time:

Received by/Company: (Signature) Date/Time: 3.7.23 1630

Chain of Custody and Cooler Receipt Form for 2304623 Page 2 of 6



CHAIN-OF-CUSTODY Analytical Request Document
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Lab Project Manager: 23-04623

Company: RRM
Billing Information: RRM
Address: 2560 Soquel Ave, #202
Report To: Matt Paulus
Email To: Matt Paulus
Copy To: Matt Paulus
Site Collection Info/Address: Pogonip open Space, City of Santa Cruz
Customer Project Name/Number: IMK 808
State: CA / Santa Cruz County/City:
Time Zone Collected: [ ]PT [ ]MT [ ]CT [ ]ET
Phone:
Email:
Site/Facility ID #:
Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Kaempf/Paulus
Purchase Order #: IMK808
Quote #:
DW PWS ID #:
DW Location Code:
Collected By (signature):
Turnaround Date Required:
Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold:
Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
Field Filtered (if applicable): [ ] Yes [X] No
Analysis: _____

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Container Preservative Type**

Analyses

Total Lead EPA 6020 (dil on dry weight basis)

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips:
Sample pH Acceptable. Y N NA
pH Strips:
Sulfide Present Y N NA
Lead Acetate Strips:

LAB USE ONLY:
Lab Sample # / Comments:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Cntrs	Container Type: Plastic (P) or Glass (G)																
RRM-9-0.5'-11	Soil	Grab	3/3/23	1050				1	SSIG	X															
RRM-10-0.5'-12	"	"	"	1125				"	"	X															
RRM-10-2'-13	"	"	"	1130				"	"	X															
RRM-10 DUP-2'-14	"	"	"	1136				"	"	X															
RRM-11-0.5'-15	"	"	"	1115				"	"	X															
RRM-11-2'-16	"	"	"	1120				"	"	X															
RRM-12-0.5'-17	"	"	"	1245				"	"	X															
RRM-12-2'-18	"	"	"	1247				"	"	X															

Customer Remarks / Special Conditions / Possible Hazards:
Ali on dry weight basis.

Type of Ice Used: Wet Blue Dry None
Packing Material Used:
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #:
Samples received via: FEDEX UPS Client Courier Pace Courier

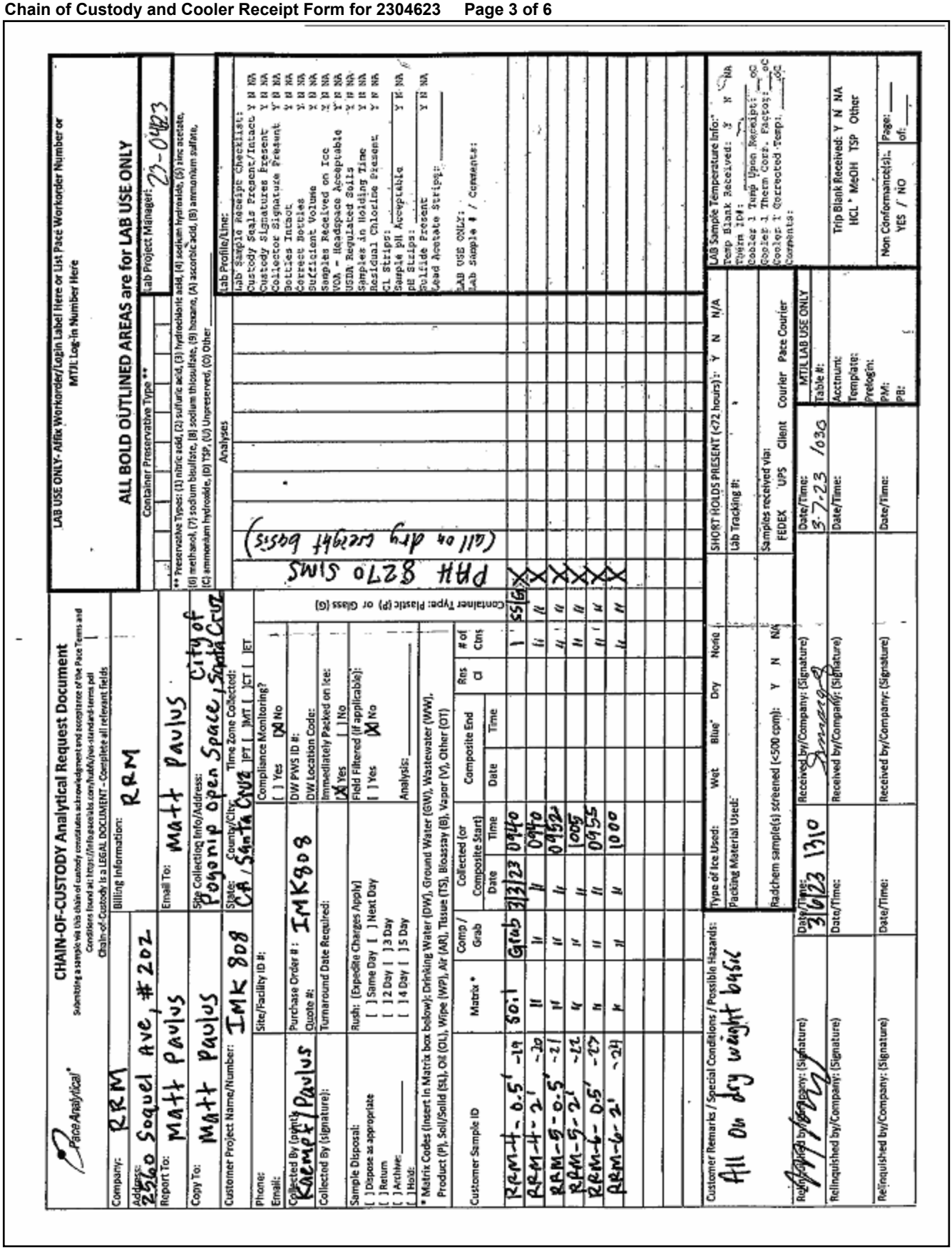
MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: ___°C
Cooler 1 Therm Corr. Factor: ___°C
Cooler 1 Corrected Temp: ___°C
Comments:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: ___ of: ___

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	3/6/23 1305		3-2-23 1036
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:



CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Chain-of-Custody is a LEGAL DOCUMENT – Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Lab Project Manager: 23-0423

Company: RRM

Billing Information: RRM

Address: 2560 Soquel Ave, #202

Email To: Matt Paulus

Report To: Matt Paulus

Ship Collection Info/Address: City of Pogonip open Space, Santa Cruz

Copy To: Matt Paulus

Customer Project Name/Number: IMK 808

State: CA County/City: Santa Cruz Time Zone Collected: PT [ ] MT [ ] CT [ ] ET

Phone:

Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

Collected By (print): Kacmpf Paulus

Purchase Order #: IMK808

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:

Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day

Field Filtered (If applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Container Preservative Type **

Container Type: Plastic (P) or Glass (G)

Analyses

PAH 8270 SIMS (all on dry weight basis)

Lab Profile/Line:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns
RAM-4-0.5' -19	SO:1	Grab	3/3/23	0940				1
RAM-4-2' -20	"	"	"	0940				"
RAM-5-0.5' -21	"	"	"	0952				"
RAM-5-2' -22	"	"	"	1005				"
RAM-6-0.5' -23	"	"	"	0955				"
RAM-6-2' -24	"	"	"	1000				"

Customer Remarks / Special Conditions / Possible Hazards: All on dry weight basis

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N N/A

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info: Temp Blank Received: Y N NA Therm ID#: Cooler 1 Temp Upon Receipt: oC Cooler 1 Therm Corr. Factor: oC Cooler 1 Corrected Temp: oC Comments:

Relinquished by/Company: (Signature) Date/Time: 3/6/23 1310 Received by/Company: (Signature)

Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time: Date/Time:

Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time: Date/Time:

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA HCL * MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

PACE ANALYTICAL — COOLER RECEIPT FORM — Page 1 Of 3

Submission #: 23-04623

SHIPPING INFORMATION
Fed Ex [X] UPS [ ] GSO / GLS [ ] Hand Delivery [ ]
Pace Lab Field Service [ ] Other [ ] (Specify)_____

SHIPPING CONTAINER
Ice Chest [X] None [ ] Box [ ]
Other [ ] (Specify)_____

FREE LIQUID
YES [ ] NO [X]
W / S

Refrigerant: Ice [ ] Blue Ice [X] None [ ] Other [ ] Comments:

Custody Seals: Ice Chest [ ] Intact? Yes [ ] No [ ] | Containers [ ] Intact? Yes [ ] No [ ] | None [X] Comments:

All samples received? Yes [X] No [ ] All samples containers intact? Yes [X] No [ ] Description(s) match COC? Yes [ ] No [X]

COC Received [X] YES [ ] NO

Emissivity: 0.97 Container: Amber Thermometer ID: 337
Temperature: (A) 3.5 °C / (C) 3.4 °C

Date/Time 3-7-23
Analyst Init SMH 1630

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR							A	A	A	
SOIL SLEEVE	A	A	A	A	A	A				A
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: C-2 description JCNS "RAM-1-2'."
Sample Numbering Completed By: JDL Date/Time: 3/7/23 1440
A = Actual / C = Corrected

Rev 23 05/20/22
[S:\WP\Doc\Word Perfect\LAB_DOCS\FORMS\SAMREC rev 20]

PACE ANALYTICAL — COOLER RECEIPT FORM — Page 2 Of 3

Submission #: 23-04623

SHIPPING INFORMATION
Fed Ex [X] UPS [ ] GSO / GLS [ ] Hand Delivery [ ]
Pace Lab Field Service [ ] Other [ ] (Specify)_____

SHIPPING CONTAINER
Ice Chest [X] None [ ] Box [ ]
Other [ ] (Specify)_____

FREE LIQUID
YES [ ] NO [X]
W / S

Refrigerant: Ice [ ] Blue Ice [X] None [ ] Other [ ] Comments:

Custody Seals: Ice Chest [ ] Intact? Yes [ ] No [ ] | Containers [ ] Intact? Yes [ ] No [ ] | None [X] Comments:

All samples received? Yes [X] No [ ] All samples containers intact? Yes [X] No [ ] Description(s) match COC? Yes [X] No [ ]

COC Received [X] YES [ ] NO

Emissivity: 0.97 Container: Amber Thermometer ID: 337

Temperature: (A) 3.5 °C / (C) 3.4 °C

Date/Time 3-7-23

Analyst Init SMH 1030

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PEA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR	A	A	A	A	A	A	A	A		
SOIL SLEEVE									A	A
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: IOZ Date/Time: 3/7/23 1940

A = Actual / C = Corrected

Rev 23 05/20/22

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PACE ANALYTICAL — COOLER RECEIPT FORM — Page 3 Of 3

Submission #: 23-04623

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☒ UPS ☐ GSO / GLS ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☒
Pace Lab Field Service ☐ Other ☐ (Specify)_____	Other ☐ (Specify)_____	W / S

Refrigerant: Ice ☐ Blue Ice ☒ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.97 Container: Amber Thermometer ID: 337

Temperature: (A) 3.5 °C / (C) 3.4 °C

Date/Time 3-7-23

Analyst Init SMH 1630

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr+6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE	A	A	A	A						
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: TVL Date/Time: 3/7/23 1440

A = Actual / C = Corrected

Rev 23 05/20/22

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2304623-01	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 08:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-1-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-02	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 08:47
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-2-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-03	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 08:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-2-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-04	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-2-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-05	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-3-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-06	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:08
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-3-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-07	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:37
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-7-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2304623-08	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:41
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-7-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-09	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-8-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-10	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-8-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-11	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-9-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-12	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 11:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-10-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-13	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 11:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-10-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-14	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 11:36
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-10 DUP-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2304623-15	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 11:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-11-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-16	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 11:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-11-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-17	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 12:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-12-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-18	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 12:47
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-12-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-19	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-4-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-20	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-4-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-21	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:52
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-5-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2304623-22	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-5-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-23	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 09:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-6-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil
2304623-24	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 10:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RRM-6-2	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus	**Sample Type:**	Soil

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Reported: 03/17/2023 13:48
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Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-01 | **Client Sample Name:** RRM-1-0.5, 3/3/2023 8:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**21.3 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**78.7 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-01 | **Client Sample Name:** RRM-1-0.5, 3/3/2023 8:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**10**	**mg/kg**	**0.32**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:20	ARD	PE-EL4	0.971	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-02 | **Client Sample Name:** RRM-2-2, 3/3/2023 8:47:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**24.5 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**75.5 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-02 | **Client Sample Name:** RRM-2-2, 3/3/2023 8:47:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**6.0**	**mg/kg**	**0.33**	**0.16**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:22	ARD	PE-EL4	0.935	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-03 | **Client Sample Name:** RRM-2-0.5, 3/3/2023 8:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.0 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**81.0 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-03 | **Client Sample Name:** RRM-2-0.5, 3/3/2023 8:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**25**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:24	ARD	PE-EL4	0.917	B161513	EPA 3050B

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Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-04 | **Client Sample Name:** RRM-2-2, 3/3/2023 9:00:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.1 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**80.9 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-04 | **Client Sample Name:** RRM-2-2, 3/3/2023 9:00:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**6.7**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:26	ARD	PE-EL4	0.952	B161513	EPA 3050B

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-05 | **Client Sample Name:** RRM-3-2, 3/3/2023 9:05:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**18.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**81.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-05 | **Client Sample Name:** RRM-3-2, 3/3/2023 9:05:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**21**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:28	ARD	PE-EL4	0.926	B161513	EPA 3050B

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-06 | **Client Sample Name:** RRM-3-0.5, 3/3/2023 9:08:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**80.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-06 | **Client Sample Name:** RRM-3-0.5, 3/3/2023 9:08:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**4.4**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:30	ARD	PE-EL4	0.935	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-07 | **Client Sample Name:** RRM-7-0.5, 3/3/2023 10:37:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**12.2 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**87.8 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-07 | **Client Sample Name:** RRM-7-0.5, 3/3/2023 10:37:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**160**	**mg/kg**	**0.28**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:37	ARD	PE-EL4	0.962	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-08 | **Client Sample Name:** RRM-7-2, 3/3/2023 10:41:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**15.7 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**84.3 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-08 | **Client Sample Name:** RRM-7-2, 3/3/2023 10:41:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**8.2**	**mg/kg**	**0.30**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:39	ARD	PE-EL4	0.909	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-09 | **Client Sample Name:** RRM-8-0.5, 3/3/2023 10:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**17.0 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**83.0 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
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Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-09 | **Client Sample Name:** RRM-8-0.5, 3/3/2023 10:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**45**	**mg/kg**	**0.30**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:41	ARD	PE-EL4	0.962	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-10 | **Client Sample Name:** RRM-8-2, 3/3/2023 10:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**15.5 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**84.5 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-10 | **Client Sample Name:** RRM-8-2, 3/3/2023 10:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**16**	**mg/kg**	**0.30**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 14:58	ARD	PE-EL4	1	B161513	EPA 3050B

DCN = Data Continuation Number

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
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Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-11 | **Client Sample Name:** RRM-9-0.5, 3/3/2023 10:50:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**25.9 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**74.1 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-11 | **Client Sample Name:** RRM-9-0.5, 3/3/2023 10:50:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**160**	**mg/kg**	**0.34**	**0.16**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:43	ARD	PE-EL4	1	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-12 | **Client Sample Name:** RRM-10-0.5, 3/3/2023 11:25:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**18.6 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**81.4 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-12 | **Client Sample Name:** RRM-10-0.5, 3/3/2023 11:25:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**190**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:45	ARD	PE-EL4	1	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-13 | **Client Sample Name:** RRM-10-2, 3/3/2023 11:30:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**24.2 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**75.8 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-13 | **Client Sample Name:** RRM-10-2, 3/3/2023 11:30:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**7.1**	**mg/kg**	**0.33**	**0.16**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:47	ARD	PE-EL4	0.909	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-14 | **Client Sample Name:** RRM-10 DUP-2, 3/3/2023 11:36:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**23.7 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**76.3 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-14 | **Client Sample Name:** RRM-10 DUP-2, 3/3/2023 11:36:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**23**	**mg/kg**	**0.33**	**0.16**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:49	ARD	PE-EL4	0.909	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-15 | **Client Sample Name:** RRM-11-0.5, 3/3/2023 11:15:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**32.2 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**67.8 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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RRM, Inc.
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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-15 | **Client Sample Name:** RRM-11-0.5, 3/3/2023 11:15:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**160**	**mg/kg**	**0.37**	**0.18**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:56	ARD	PE-EL4	0.962	B161513	EPA 3050B

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-16 | **Client Sample Name:** RRM-11-2, 3/3/2023 11:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**15.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**84.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-16 | **Client Sample Name:** RRM-11-2, 3/3/2023 11:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**36**	**mg/kg**	**0.30**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 15:58	ARD	PE-EL4	1	B161513	EPA 3050B

DCN = Data Continuation Number

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-17 | **Client Sample Name:** RRM-12-0.5, 3/3/2023 12:45:00PM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**25.3 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**74.7 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-17 | **Client Sample Name:** RRM-12-0.5, 3/3/2023 12:45:00PM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**130**	**mg/kg**	**0.33**	**0.16**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 16:00	ARD	PE-EL4	0.990	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-18 | **Client Sample Name:** RRM-12-2, 3/3/2023 12:47:00PM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**21.2 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**78.8 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-18 | **Client Sample Name:** RRM-12-2, 3/3/2023 12:47:00PM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**6.5**	**mg/kg**	**0.32**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 16:02	ARD	PE-EL4	0.971	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-19 | **Client Sample Name:** RRM-4-0.5, 3/3/2023 9:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**16.6 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**83.4 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-19 | **Client Sample Name:** RRM-4-0.5, 3/3/2023 9:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**20**	**mg/kg**	**0.30**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 16:04	ARD	PE-EL4	0.990	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-20 | **Client Sample Name:** RRM-4-2, 3/3/2023 9:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**80.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/16/23 08:09	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/15/23 07:40	03/16/23 06:45	DRC	MANUAL	1	B161894	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-20 | **Client Sample Name:** RRM-4-2, 3/3/2023 9:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**5.2**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 16:06	ARD	PE-EL4	1	B161513	EPA 3050B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-21 | **Client Sample Name:** RRM-5-0.5, 3/3/2023 9:52:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**14.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**85.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/17/23 13:37	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/16/23 14:20	03/17/23 12:00	DRC	MANUAL	1	B162089	SM 2540G

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-21 | **Client Sample Name:** RRM-5-0.5, 3/3/2023 9:52:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**38**	**mg/kg**	**0.29**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 11:48	KHS	PE-EL4	0.980	B161514	EPA 3050B

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-22 | **Client Sample Name:** RRM-5-2, 3/3/2023 10:05:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**18.2 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**81.8 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/17/23 13:37	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/16/23 14:20	03/17/23 12:00	DRC	MANUAL	1	B162089	SM 2540G

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-22 | **Client Sample Name:** RRM-5-2, 3/3/2023 10:05:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**7.9**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 11:50	KHS	PE-EL4	0.962	B161514	EPA 3050B

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-23 | **Client Sample Name:** RRM-6-0.5, 3/3/2023 9:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.1 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**80.9 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/17/23 13:37	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/16/23 14:20	03/17/23 12:00	DRC	MANUAL	1	B162089	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-23 | **Client Sample Name:** RRM-6-0.5, 3/3/2023 9:55:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**38**	**mg/kg**	**0.31**	**0.15**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 11:52	KHS	PE-EL4	0.952	B161514	EPA 3050B

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2304623-24 | **Client Sample Name:** RRM-6-2, 3/3/2023 10:00:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**14.6 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**85.4 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/08/23 08:56	03/17/23 13:37	AMM	Calc	1	B161412	Calc
2	SM-2540G	03/16/23 14:20	03/17/23 12:00	DRC	MANUAL	1	B162089	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
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Santa Cruz, CA 95062

Reported: 03/17/2023 13:48
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Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2304623-24 | **Client Sample Name:** RRM-6-2, 3/3/2023 10:00:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Lead	**8.3**	**mg/kg**	**0.29**	**0.14**	**EPA-6020**	1000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 11:20	03/10/23 11:54	KHS	PE-EL4	0.926	B161514	EPA 3050B

DCN = Data Continuation Number

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Chemical Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161412							
Moisture	B161412-BLK1	ND	%	0.05	0.05		1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161412-BLK1	PB	Calc	03/08/23	03/16/23 08:09	AMM	Calc	1

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Chemical Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161894	Used client sample: Y - Description: RRM-1-0.5, 03/03/2023 08:40											
Solids	DUP	2304623-01	78.689	79.323		%	0.8		20			1
QC Batch ID: B162089	Used client sample: Y - Description: RRM-5-0.5, 03/03/2023 09:52											
Solids	DUP	2304623-21	85.140	84.800		%	0.4		20			2

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161894-DUP1	DUP	SM-2540G	03/15/23	03/16/23 06:45	DRC	MANUAL	1
2	B162089-DUP1	DUP	SM-2540G	03/16/23	03/17/23 12:00	DRC	MANUAL	1

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Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161513							
Lead	B161513-BLK1	ND	mg/kg	0.25	0.12		1
QC Batch ID: B161514							
Lead	B161514-BLK1	ND	mg/kg	0.25	0.12		2

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161513-BLK1	PB	EPA-6020	03/09/23	03/10/23 14:56	ARD	PE-EL4	1
2	B161514-BLK1	PB	EPA-6020	03/09/23	03/10/23 10:57	KHS	PE-EL4	1

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Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B161513											
Lead	B161513-BS1	LCS	26.822	25.000	mg/kg	107		75 - 125			1
QC Batch ID: B161514											
Lead	B161514-BS1	LCS	28.221	25.000	mg/kg	113		75 - 125			2

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161513-BS1	LCS	EPA-6020	03/09/23	03/10/23 15:04	ARD	PE-EL4	1
2	B161514-BS1	LCS	EPA-6020	03/09/23	03/10/23 11:04	KHS	PE-EL4	1

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161513	Used client sample: Y - Description: RRM-8-2, 03/03/2023 10:55											
Lead	DUP	2304623-10	13.467	13.490		mg/kg	0.2		20			1
	MS	2304623-10	13.467	40.464	25.000	mg/kg		108		75 - 125		2
	MSD	2304623-10	13.467	39.294	25.000	mg/kg	2.9	103	20	75 - 125		3
QC Batch ID: B161514	Used client sample: N											
Lead	DUP	2304747-02	3.2105	3.2032		mg/kg	0.2		20			4
	MS	2304747-02	3.2105	33.113	25.000	mg/kg		120		75 - 125		5
	MSD	2304747-02	3.2105	31.645	25.000	mg/kg	4.5	114	20	75 - 125		6

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161513-DUP1	DUP	EPA-6020	03/09/23	03/10/23 15:00	ARD	PE-EL4	1
2	B161513-MS1	MS	EPA-6020	03/09/23	03/10/23 15:06	ARD	PE-EL4	1
3	B161513-MSD1	MSD	EPA-6020	03/09/23	03/10/23 15:07	ARD	PE-EL4	1
4	B161514-DUP1	DUP	EPA-6020	03/09/23	03/10/23 11:01	KHS	PE-EL4	1
5	B161514-MS1	MS	EPA-6020	03/09/23	03/10/23 11:06	KHS	PE-EL4	1
6	B161514-MSD1	MSD	EPA-6020	03/09/23	03/10/23 11:08	KHS	PE-EL4	1

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Reported: 03/17/2023 13:48
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit

Date of Report: 03/17/2023

Matt Paulus

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Client Project:	IMK808
BCL Project:	Groundwaters
BCL Work Order:	2304624
Invoice ID:	B471675

Enclosed are the results of analyses for samples received by the laboratory on 3/7/2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

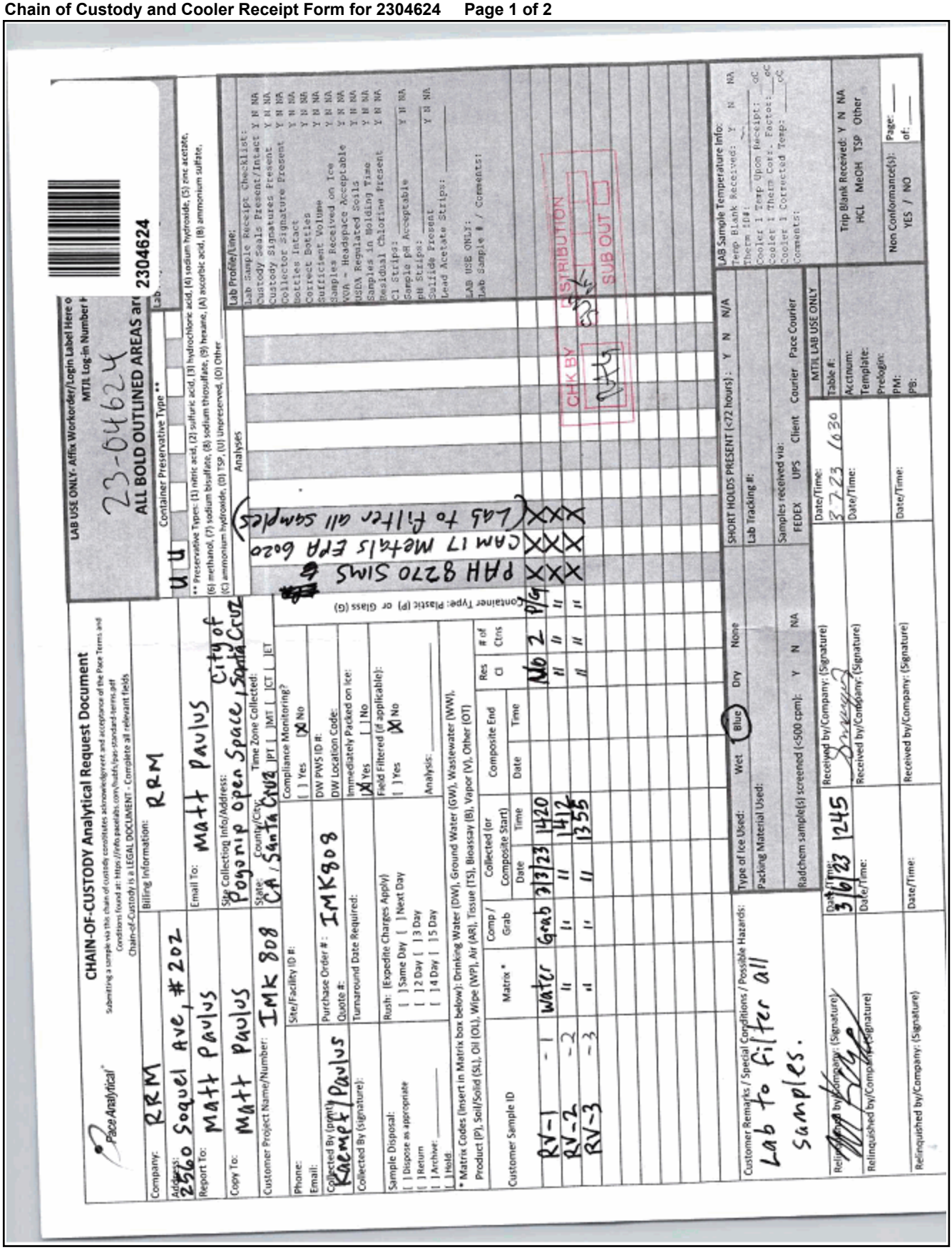
Contact Person: Eli Velazquez
Client Service Rep

Stuart Buttram
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

Table of Contents

Chain of Custody and Cooler Receipt Form for 2304624 Page 1 of 2



CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here
MTJL Log-in Number
23-04624
ALL BOLD OUTLINED AREAS are

Company: RRM
Billing Information: RRM
Address: 2560 Soquel Ave, #202
Email To: Matt Paulus
Report To: Matt Paulus
Copy To: Matt Paulus
Site Collecting Info/Address: Pogonip open Space, Santa Cruz City of
Customer Project Name/Number: IMK 808
State: CA County/City: Santa Cruz Time Zone Collected: PT MT CT ET
Phone:
Email:
Site/Facility ID #:
Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Kaempf/Paulus
Purchase Order #: IMK808
Quote #:
DW PWS ID #:
DW Location Code:
Collected By (signature):
Turnaround Date Required:
Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold
Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
Field Filtered (if applicable): [ ] Yes [X] No
Analysis:
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: U U
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: PAH 8270 SIMS, CAM 17 Metals EPA 6020, Lab to filter all samples

Container Type: Plastic (P) or Glass (G)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns
RV-1	Water	Grab	2/13/23	1420			No	2
RV-2	"	"	"	1412			"	"
RV-3	"	"	"	1355			"	"

Customer Remarks / Special Conditions / Possible Hazards: Lab to filter all samples.

Type of Ice Used: Wet (Blue) Dry None
Packing Material Used:
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #:
Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

Lab Profile/Line:

Lab Sample Receipt Checklist:	
Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

CHK BY
DISTRIBUTION
SUB OUT

Relinquished by/Company: (Signature) Date/Time: 2/16/23 1245 Received by/Company: (Signature)
Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature)
Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature)

MTJL LAB USE ONLY
Date/Time: 2/23 1630
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:
Date/Time:
Date/Time:

Trip Blank Received: Y N NA
HCL MeOH TSP Other
Non Conformance(s): YES / NO
Page: of:

Pace Analytical
ENVIRONMENTAL SCIENCES

PACE ANALYTICAL — COOLER RECEIPT FORM — Page 1 Of 1

Submission #: 2304624

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☒ UPS ☐ GSO / GLS ☐ Hand Delivery ☐ Pace Lab Field Service ☐ Other ☐ (Specify)____	Ice Chest ☒ None ☐ Box ☐ Other ☐ (Specify)____	YES ☐ NO ☒ W / S

Refrigerant: Ice ☐ Blue Ice ☒ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☐ No ☒ Description(s) match COC? Yes ☒ No ☐

COC Received	Emissivity / Temperature	Date/Time
☒ YES ☐ NO	Emissivity: 0.97 Container: Amber Thermometer ID: 337 Temperature: (A) 3.5 °C / (C) 3.4 °C	Date/Time 3-7-23 Analyst Init SMH/1030

SAMPLE CONTAINERS	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER	B	B	B							
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: (-1B arrived with a broken lid.)
Sample Numbering Completed By: JOZ Date/Time: 3/7/23
A = Actual / C = Corrected

Rev 23 06/20/22
[S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC rev 23]

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2304624-01	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 14:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RV-1	**Lab Matrix:**	Water
	Sampled By:	Client	**Sample Type:**	Water
2304624-02	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 14:12
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RV-2	**Lab Matrix:**	Water
	Sampled By:	Client	**Sample Type:**	Water
2304624-03	**COC Number:**	---	**Receive Date:**	03/07/2023 10:30
	Project Number:	---	**Sampling Date:**	03/03/2023 13:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RV-3	**Lab Matrix:**	Water
	Sampled By:	Client	**Sample Type:**	Water

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RRM, Inc.
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Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2304624-01 | **Client Sample Name:** RV-1, 3/3/2023 2:20:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.018	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.045	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.020	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.044	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.032	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.048	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.025	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.024	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	77.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	63.8	%	50 - 130 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	50.2	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/10/23 19:00	03/15/23 14:59	OLH	MS-B7	1	B161825	EPA 3510C

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

BCL Sample ID: 2304624-01 | **Client Sample Name:** RV-1, 3/3/2023 2:20:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Dissolved Antimony	**1.6**	**ug/L**	**2.0**	**0.23**	**EPA-6020**	ND	**J**	1
Dissolved Arsenic	**0.69**	**ug/L**	**2.0**	**0.38**	**EPA-6020**	ND	**J**	1
Dissolved Barium	**33**	**ug/L**	**1.0**	**0.066**	**EPA-6020**	ND		1
Dissolved Beryllium	**0.062**	**ug/L**	**1.0**	**0.050**	**EPA-6020**	ND	**J**	1
Dissolved Cadmium	**0.099**	**ug/L**	**1.0**	**0.034**	**EPA-6020**	ND	**J**	1
Dissolved Chromium	**0.71**	**ug/L**	**3.0**	**0.15**	**EPA-6020**	0.17	**J**	1
Dissolved Cobalt	**0.18**	**ug/L**	**1.0**	**0.011**	**EPA-6020**	ND	**J**	1
Dissolved Copper	**1.6**	**ug/L**	**2.0**	**0.32**	**EPA-6020**	ND	**J**	1
Dissolved Lead	**10**	**ug/L**	**1.0**	**0.021**	**EPA-6020**	ND		1
Dissolved Mercury	**0.15**	**ug/L**	**0.20**	**0.022**	**EPA-7470A**	ND	**J**	2
Dissolved Molybdenum	**0.041**	**ug/L**	**1.0**	**0.033**	**EPA-6020**	ND	**J**	1
Dissolved Nickel	**1.2**	**ug/L**	**2.0**	**0.15**	**EPA-6020**	ND	**J**	1
Dissolved Selenium	ND	ug/L	10	1.2	EPA-6020	ND	A10	3
Dissolved Silver	ND	ug/L	1.0	0.015	EPA-6020	ND		1
Dissolved Thallium	ND	ug/L	1.0	0.025	EPA-6020	ND		1
Dissolved Vanadium	**0.93**	**ug/L**	**3.0**	**0.39**	**EPA-6020**	ND	**J**	1
Dissolved Zinc	**8.2**	**ug/L**	**5.0**	**2.2**	**EPA-6020**	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 06:00	03/09/23 12:10	KHS	PE-EL4	1	B161499	EPA 3005A
2	EPA-7470A	03/13/23 12:00	03/13/23 15:34	TMT	CETAC3	1	B161635	EPA 7470A
3	EPA-6020	03/09/23 06:00	03/09/23 13:07	KHS	PE-EL4	5	B161499	EPA 3005A

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

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2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2304624-02 | **Client Sample Name:** RV-2, 3/3/2023 2:12:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.018	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.045	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.020	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.044	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.032	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.048	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.025	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.024	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	86.8	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	71.6	%	50 - 130 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	53.0	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/10/23 19:00	03/15/23 15:22	OLH	MS-B7	1	B161825	EPA 3510C

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

BCL Sample ID: 2304624-02 | **Client Sample Name:** RV-2, 3/3/2023 2:12:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Dissolved Antimony	**2.6**	**ug/L**	**2.0**	**0.23**	**EPA-6020**	ND		1
Dissolved Arsenic	**0.66**	**ug/L**	**2.0**	**0.38**	**EPA-6020**	ND	**J**	1
Dissolved Barium	**29**	**ug/L**	**1.0**	**0.066**	**EPA-6020**	ND		1
Dissolved Beryllium	**0.073**	**ug/L**	**1.0**	**0.050**	**EPA-6020**	ND	**J**	1
Dissolved Cadmium	**0.25**	**ug/L**	**1.0**	**0.034**	**EPA-6020**	ND	**J**	1
Dissolved Chromium	**0.56**	**ug/L**	**3.0**	**0.15**	**EPA-6020**	0.17	**J**	1
Dissolved Cobalt	**0.17**	**ug/L**	**1.0**	**0.011**	**EPA-6020**	ND	**J**	1
Dissolved Copper	**1.9**	**ug/L**	**2.0**	**0.32**	**EPA-6020**	ND	**J**	1
Dissolved Lead	**20**	**ug/L**	**1.0**	**0.021**	**EPA-6020**	ND		1
Dissolved Mercury	ND	ug/L	0.20	0.022	EPA-7470A	ND		2
Dissolved Molybdenum	**0.042**	**ug/L**	**1.0**	**0.033**	**EPA-6020**	ND	**J**	1
Dissolved Nickel	**1.1**	**ug/L**	**2.0**	**0.15**	**EPA-6020**	ND	**J**	1
Dissolved Selenium	ND	ug/L	10	1.2	EPA-6020	ND	A10	3
Dissolved Silver	ND	ug/L	1.0	0.015	EPA-6020	ND		1
Dissolved Thallium	ND	ug/L	1.0	0.025	EPA-6020	ND		1
Dissolved Vanadium	**0.95**	**ug/L**	**3.0**	**0.39**	**EPA-6020**	ND	**J**	1
Dissolved Zinc	**8.2**	**ug/L**	**5.0**	**2.2**	**EPA-6020**	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 06:00	03/09/23 12:47	KHS	PE-EL4	1	B161499	EPA 3005A
2	EPA-7470A	03/16/23 09:00	03/16/23 15:36	TMT	CETAC3	1	B162043	EPA 7470A
3	EPA-6020	03/09/23 06:00	03/09/23 13:19	KHS	PE-EL4	5	B161499	EPA 3005A

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2304624-03 | **Client Sample Name:** RV-3, 3/3/2023 1:55:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.018	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.045	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.020	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.044	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.032	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.048	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.019	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.025	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.016	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.017	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.024	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	85.8	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	68.3	%	50 - 130 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	52.3	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/10/23 19:00	03/15/23 15:44	OLH	MS-B7	1	B161825	EPA 3510C

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

BCL Sample ID: 2304624-03 | **Client Sample Name:** RV-3, 3/3/2023 1:55:00PM, Client

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Dissolved Antimony	**2.3**	**ug/L**	**2.0**	**0.23**	**EPA-6020**	ND		1
Dissolved Arsenic	**0.83**	**ug/L**	**2.0**	**0.38**	**EPA-6020**	ND	**J**	1
Dissolved Barium	**32**	**ug/L**	**1.0**	**0.066**	**EPA-6020**	ND		1
Dissolved Beryllium	**0.062**	**ug/L**	**1.0**	**0.050**	**EPA-6020**	ND	**J**	1
Dissolved Cadmium	**0.53**	**ug/L**	**1.0**	**0.034**	**EPA-6020**	ND	**J**	1
Dissolved Chromium	**0.62**	**ug/L**	**3.0**	**0.15**	**EPA-6020**	0.17	**J**	1
Dissolved Cobalt	**0.17**	**ug/L**	**1.0**	**0.011**	**EPA-6020**	ND	**J**	1
Dissolved Copper	**2.1**	**ug/L**	**2.0**	**0.32**	**EPA-6020**	ND		1
Dissolved Lead	**16**	**ug/L**	**1.0**	**0.021**	**EPA-6020**	ND		1
Dissolved Mercury	ND	ug/L	0.20	0.022	EPA-7470A	ND		2
Dissolved Molybdenum	ND	ug/L	1.0	0.033	EPA-6020	ND		1
Dissolved Nickel	**1.2**	**ug/L**	**2.0**	**0.15**	**EPA-6020**	ND	**J**	1
Dissolved Selenium	ND	ug/L	10	1.2	EPA-6020	ND	A10	3
Dissolved Silver	ND	ug/L	1.0	0.015	EPA-6020	ND		1
Dissolved Thallium	ND	ug/L	1.0	0.025	EPA-6020	ND		1
Dissolved Vanadium	**0.91**	**ug/L**	**3.0**	**0.39**	**EPA-6020**	ND	**J**	1
Dissolved Zinc	**20**	**ug/L**	**5.0**	**2.2**	**EPA-6020**	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6020	03/09/23 06:00	03/09/23 12:49	KHS	PE-EL4	1	B161499	EPA 3005A
2	EPA-7470A	03/16/23 09:00	03/16/23 15:51	TMT	CETAC3	1	B162043	EPA 7470A
3	EPA-6020	03/09/23 06:00	03/09/23 13:21	KHS	PE-EL4	5	B161499	EPA 3005A

DCN = Data Continuation Number

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161825							
Acenaphthene	B161825-BLK1	ND	ug/L	0.10	0.016		1
Acenaphthylene	B161825-BLK1	ND	ug/L	0.10	0.018		1
Anthracene	B161825-BLK1	ND	ug/L	0.10	0.045		1
Benzo[a]anthracene	B161825-BLK1	ND	ug/L	0.10	0.020		1
Benzo[b]fluoranthene	B161825-BLK1	ND	ug/L	0.10	0.040		1
Benzo[k]fluoranthene	B161825-BLK1	ND	ug/L	0.10	0.044		1
Benzo[a]pyrene	B161825-BLK1	ND	ug/L	0.10	0.032		1
Benzo[g,h,i]perylene	B161825-BLK1	ND	ug/L	0.10	0.048		1
Chrysene	B161825-BLK1	ND	ug/L	0.10	0.017		1
Dibenzo[a,h]anthracene	B161825-BLK1	ND	ug/L	0.10	0.031		1
Fluoranthene	B161825-BLK1	ND	ug/L	0.10	0.019		1
Fluorene	B161825-BLK1	ND	ug/L	0.10	0.019		1
Indeno[1,2,3-cd]pyrene	B161825-BLK1	ND	ug/L	0.10	0.025		1
Naphthalene	B161825-BLK1	ND	ug/L	0.10	0.016		1
Phenanthrene	B161825-BLK1	ND	ug/L	0.10	0.017		1
Pyrene	B161825-BLK1	ND	ug/L	0.10	0.024		1
Nitrobenzene-d5 (Surrogate)	**B161825-BLK1**	**87.3**	%	**40 - 130 (LCL - UCL)**			1
2-Fluorobiphenyl (Surrogate)	**B161825-BLK1**	**86.7**	%	**50 - 130 (LCL - UCL)**			1
p-Terphenyl-d14 (Surrogate)	**B161825-BLK1**	**58.0**	%	**40 - 130 (LCL - UCL)**			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161825-BLK1	PB	EPA-8270C-SIM	03/10/23	03/13/23 12:25	OLH	MS-B7	1

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Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B161825											
Acenaphthene	B161825-BS1	LCS	0.76931	1.0000	ug/L	76.9		60 - 110			1
Acenaphthylene	B161825-BS1	LCS	0.81967	1.0000	ug/L	82.0		60 - 120			1
Anthracene	B161825-BS1	LCS	0.84124	1.0000	ug/L	84.1		60 - 130			1
Benzo[a]anthracene	B161825-BS1	LCS	0.68094	1.0000	ug/L	68.1		60 - 130			1
Benzo[b]fluoranthene	B161825-BS1	LCS	0.83901	1.0000	ug/L	83.9		50 - 130			1
Benzo[k]fluoranthene	B161825-BS1	LCS	0.75481	1.0000	ug/L	75.5		60 - 120			1
Benzo[a]pyrene	B161825-BS1	LCS	0.70890	1.0000	ug/L	70.9		60 - 120			1
Benzo[g,h,i]perylene	B161825-BS1	LCS	0.86108	1.0000	ug/L	86.1		40 - 120			1
Chrysene	B161825-BS1	LCS	0.63743	1.0000	ug/L	63.7		60 - 110			1
Dibenzo[a,h]anthracene	B161825-BS1	LCS	0.79968	1.0000	ug/L	80.0		40 - 120			1
Fluoranthene	B161825-BS1	LCS	0.87929	1.0000	ug/L	87.9		60 - 120			1
Fluorene	B161825-BS1	LCS	0.77343	1.0000	ug/L	77.3		60 - 120			1
Indeno[1,2,3-cd]pyrene	B161825-BS1	LCS	0.86845	1.0000	ug/L	86.8		40 - 130			1
Naphthalene	B161825-BS1	LCS	0.76952	1.0000	ug/L	77.0		60 - 110			1
Phenanthrene	B161825-BS1	LCS	0.75373	1.0000	ug/L	75.4		60 - 120			1
Pyrene	B161825-BS1	LCS	0.63829	1.0000	ug/L	63.8		50 - 125			1
Nitrobenzene-d5 (Surrogate)	B161825-BS1	LCS	3.7148	4.0000	ug/L	92.9		40 - 130			1
2-Fluorobiphenyl (Surrogate)	B161825-BS1	LCS	3.3899	4.0000	ug/L	84.7		50 - 130			1
p-Terphenyl-d14 (Surrogate)	B161825-BS1	LCS	1.9655	4.0000	ug/L	49.1		40 - 130			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161825-BS1	LCS	EPA-8270C-SIM	03/10/23	03/13/23 12:47	OLH	MS-B7	1

RRM, Inc.
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Reported: 03/17/2023 15:04
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Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161825	Used client sample: N											
Acenaphthene	MS	2300342-03	ND	0.74962	1.0000	ug/L		75.0		60 - 110		1
	MSD	2300342-03	ND	0.74342	1.0000	ug/L	0.8	74.3	30	60 - 110		2
Acenaphthylene	MS	2300342-03	ND	0.78514	1.0000	ug/L		78.5		60 - 120		1
	MSD	2300342-03	ND	0.79591	1.0000	ug/L	1.4	79.6	30	60 - 120		2
Anthracene	MS	2300342-03	ND	0.78919	1.0000	ug/L		78.9		60 - 130		1
	MSD	2300342-03	ND	0.81834	1.0000	ug/L	3.6	81.8	30	60 - 130		2
Benzo[a]anthracene	MS	2300342-03	ND	0.71148	1.0000	ug/L		71.1		60 - 120		1
	MSD	2300342-03	ND	0.62142	1.0000	ug/L	13.5	62.1	30	60 - 120		2
Benzo[b]fluoranthene	MS	2300342-03	ND	0.68090	1.0000	ug/L		68.1		50 - 130		1
	MSD	2300342-03	ND	0.81221	1.0000	ug/L	17.6	81.2	30	50 - 130		2
Benzo[k]fluoranthene	MS	2300342-03	ND	0.71897	1.0000	ug/L		71.9		60 - 120		1
	MSD	2300342-03	ND	0.67046	1.0000	ug/L	7.0	67.0	30	60 - 120		2
Benzo[a]pyrene	MS	2300342-03	ND	0.62793	1.0000	ug/L		62.8		60 - 120		1
	MSD	2300342-03	ND	0.65672	1.0000	ug/L	4.5	65.7	30	60 - 120		2
Benzo[g,h,i]perylene	MS	2300342-03	ND	0.75901	1.0000	ug/L		75.9		40 - 120		1
	MSD	2300342-03	ND	0.71405	1.0000	ug/L	6.1	71.4	30	40 - 120		2
Chrysene	MS	2300342-03	ND	0.64567	1.0000	ug/L		64.6		60 - 110		1
	MSD	2300342-03	ND	0.61332	1.0000	ug/L	5.1	61.3	30	60 - 110		2
Dibenzo[a,h]anthracene	MS	2300342-03	ND	0.73874	1.0000	ug/L		73.9		40 - 120		1
	MSD	2300342-03	ND	0.65568	1.0000	ug/L	11.9	65.6	30	40 - 120		2
Fluoranthene	MS	2300342-03	ND	0.81586	1.0000	ug/L		81.6		60 - 120		1
	MSD	2300342-03	ND	0.86589	1.0000	ug/L	5.9	86.6	30	60 - 120		2
Fluorene	MS	2300342-03	ND	0.75976	1.0000	ug/L		76.0		60 - 120		1
	MSD	2300342-03	ND	0.75511	1.0000	ug/L	0.6	75.5	30	60 - 120		2
Indeno[1,2,3-cd]pyrene	MS	2300342-03	ND	0.69815	1.0000	ug/L		69.8		40 - 130		1
	MSD	2300342-03	ND	0.77725	1.0000	ug/L	10.7	77.7	30	40 - 130		2
Naphthalene	MS	2300342-03	ND	0.74244	1.0000	ug/L		74.2		60 - 110		1
	MSD	2300342-03	ND	0.76710	1.0000	ug/L	3.3	76.7	30	60 - 110		2
Phenanthrene	MS	2300342-03	ND	0.70338	1.0000	ug/L		70.3		60 - 120		1
	MSD	2300342-03	ND	0.74238	1.0000	ug/L	5.4	74.2	30	60 - 120		2
Pyrene	MS	2300342-03	ND	0.68937	1.0000	ug/L		68.9		50 - 125		1
	MSD	2300342-03	ND	0.62879	1.0000	ug/L	9.2	62.9	30	50 - 125		2
Nitrobenzene-d5 (Surrogate)	MS	2300342-03	ND	3.6022	4.0000	ug/L		90.1		40 - 130		1
	MSD	2300342-03	ND	3.6181	4.0000	ug/L	0.4	90.5		40 - 130		2
2-Fluorobiphenyl (Surrogate)	MS	2300342-03	ND	3.2713	4.0000	ug/L		81.8		50 - 130		1
	MSD	2300342-03	ND	3.3623	4.0000	ug/L	2.7	84.1		50 - 130		2

RRM, Inc.
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Reported: 03/17/2023 15:04
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Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161825	Used client sample: N											
p-Terphenyl-d14 (Surrogate)	MS	2300342-03	ND	1.9983	4.0000	ug/L		50.0		40 - 130		1
	MSD	2300342-03	ND	1.7524	4.0000	ug/L	13.1	43.8		40 - 130		2

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161825-MS1	MS	EPA-8270C-SIM	03/10/23	03/13/23 13:10	OLH	MS-B7	1
2	B161825-MSD1	MSD	EPA-8270C-SIM	03/10/23	03/13/23 13:32	OLH	MS-B7	1

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Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161499							
Dissolved Antimony	B161499-BLK1	ND	ug/L	2.0	0.23		1
Dissolved Arsenic	B161499-BLK1	ND	ug/L	2.0	0.38		1
Dissolved Barium	B161499-BLK1	ND	ug/L	1.0	0.066		1
Dissolved Beryllium	B161499-BLK1	ND	ug/L	1.0	0.050		1
Dissolved Cadmium	B161499-BLK1	ND	ug/L	1.0	0.034		1
Dissolved Chromium	**B161499-BLK1**	**0.17200**	**ug/L**	**3.0**	**0.15**	**J**	1
Dissolved Cobalt	B161499-BLK1	ND	ug/L	1.0	0.011		1
Dissolved Copper	B161499-BLK1	ND	ug/L	2.0	0.32		1
Dissolved Lead	B161499-BLK1	ND	ug/L	1.0	0.021		1
Dissolved Molybdenum	B161499-BLK1	ND	ug/L	1.0	0.033		1
Dissolved Nickel	B161499-BLK1	ND	ug/L	2.0	0.15		1
Dissolved Selenium	B161499-BLK2	ND	ug/L	2.0	0.25		2
Dissolved Silver	B161499-BLK1	ND	ug/L	1.0	0.015		1
Dissolved Thallium	B161499-BLK1	ND	ug/L	1.0	0.025		1
Dissolved Vanadium	B161499-BLK1	ND	ug/L	3.0	0.39		1
Dissolved Zinc	B161499-BLK1	ND	ug/L	5.0	2.2		1
QC Batch ID: B161635							
Dissolved Mercury	B161635-BLK1	ND	ug/L	0.20	0.022		3
QC Batch ID: B162043							
Dissolved Mercury	B162043-BLK1	ND	ug/L	0.20	0.022		4

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161499-BLK1	PB	EPA-6020	03/09/23	03/09/23 12:08	KHS	PE-EL4	1
2	B161499-BLK2	PB	EPA-6020	03/09/23	03/09/23 12:08	KHS	PE-EL4	1
3	B161635-BLK1	PB	EPA-7470A	03/13/23	03/13/23 15:10	TMT	CETAC3	1
4	B162043-BLK1	PB	EPA-7470A	03/16/23	03/16/23 15:04	TMT	CETAC3	1

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B161499											
Dissolved Antimony	B161499-BS1	LCS	38.925	40.000	ug/L	97.3		75 - 125			1
Dissolved Arsenic	B161499-BS1	LCS	99.326	100.00	ug/L	99.3		75 - 125			1
Dissolved Barium	B161499-BS1	LCS	37.812	40.000	ug/L	94.5		75 - 125			1
Dissolved Beryllium	B161499-BS1	LCS	40.289	40.000	ug/L	101		75 - 125			1
Dissolved Cadmium	B161499-BS1	LCS	39.612	40.000	ug/L	99.0		75 - 125			1
Dissolved Chromium	B161499-BS1	LCS	37.530	40.000	ug/L	93.8		75 - 125			1
Dissolved Cobalt	B161499-BS1	LCS	37.033	40.000	ug/L	92.6		75 - 125			1
Dissolved Copper	B161499-BS1	LCS	102.46	100.00	ug/L	102		75 - 125			1
Dissolved Lead	B161499-BS1	LCS	98.452	100.00	ug/L	98.5		75 - 125			1
Dissolved Molybdenum	B161499-BS1	LCS	36.732	40.000	ug/L	91.8		75 - 125			1
Dissolved Nickel	B161499-BS1	LCS	95.093	100.00	ug/L	95.1		75 - 125			1
Dissolved Selenium	B161499-BS2	LCS	98.323	100.00	ug/L	98.3		75 - 125			2
Dissolved Silver	B161499-BS1	LCS	38.947	40.000	ug/L	97.4		75 - 125			1
Dissolved Thallium	B161499-BS1	LCS	38.371	40.000	ug/L	95.9		75 - 125			1
Dissolved Vanadium	B161499-BS1	LCS	37.167	40.000	ug/L	92.9		75 - 125			1
Dissolved Zinc	B161499-BS1	LCS	101.26	100.00	ug/L	101		75 - 125			1
QC Batch ID: B161635											
Dissolved Mercury	B161635-BS1	LCS	0.90250	1.0000	ug/L	90.2		85 - 115			3
QC Batch ID: B162043											
Dissolved Mercury	B162043-BS1	LCS	1.0025	1.0000	ug/L	100		85 - 115			4

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161499-BS1	LCS	EPA-6020	03/09/23	03/09/23 12:16	KHS	PE-EL4	1
2	B161499-BS2	LCS	EPA-6020	03/09/23	03/09/23 12:16	KHS	PE-EL4	1
3	B161635-BS1	LCS	EPA-7470A	03/13/23	03/13/23 15:12	TMT	CETAC3	1
4	B162043-BS1	LCS	EPA-7470A	03/16/23	03/16/23 15:12	TMT	CETAC3	1

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161499	Used client sample: Y - Description: RV-1, 03/03/2023 14:20											
Dissolved Antimony	DUP	2304624-01	1.5640	1.6170		ug/L	3.3		20		J	1
	MS	2304624-01	1.5640	44.642	40.816	ug/L		106		75 - 125		2
	MSD	2304624-01	1.5640	45.358	40.816	ug/L	1.6	107	20	75 - 125		3
Dissolved Arsenic	DUP	2304624-01	0.69400	0.75400		ug/L	8.3		20		J	1
	MS	2304624-01	0.69400	114.85	102.04	ug/L		112		75 - 125		2
	MSD	2304624-01	0.69400	116.31	102.04	ug/L	1.3	113	20	75 - 125		3
Dissolved Barium	DUP	2304624-01	33.054	32.488		ug/L	1.7		20			1
	MS	2304624-01	33.054	75.256	40.816	ug/L		103		75 - 125		2
	MSD	2304624-01	33.054	74.366	40.816	ug/L	1.2	101	20	75 - 125		3
Dissolved Beryllium	DUP	2304624-01	0.062000	0.063000		ug/L	1.6		20		J	1
	MS	2304624-01	0.062000	47.663	40.816	ug/L		117		75 - 125		2
	MSD	2304624-01	0.062000	48.883	40.816	ug/L	2.5	120	20	75 - 125		3
Dissolved Cadmium	DUP	2304624-01	0.099000	0.081000		ug/L	20.0		20		J	1
	MS	2304624-01	0.099000	44.383	40.816	ug/L		108		75 - 125		2
	MSD	2304624-01	0.099000	45.494	40.816	ug/L	2.5	111	20	75 - 125		3
Dissolved Chromium	DUP	2304624-01	0.71000	0.70500		ug/L	0.7		20		J	1
	MS	2304624-01	0.71000	39.216	40.816	ug/L		94.3		75 - 125		2
	MSD	2304624-01	0.71000	39.495	40.816	ug/L	0.7	95.0	20	75 - 125		3
Dissolved Cobalt	DUP	2304624-01	0.18300	0.17000		ug/L	7.4		20		J	1
	MS	2304624-01	0.18300	38.309	40.816	ug/L		93.4		75 - 125		2
	MSD	2304624-01	0.18300	38.428	40.816	ug/L	0.3	93.7	20	75 - 125		3
Dissolved Copper	DUP	2304624-01	1.5540	1.5300		ug/L	1.6		20		J	1
	MS	2304624-01	1.5540	103.04	102.04	ug/L		99.5		75 - 125		2
	MSD	2304624-01	1.5540	101.82	102.04	ug/L	1.2	98.3	20	75 - 125		3
Dissolved Lead	DUP	2304624-01	10.443	10.233		ug/L	2.0		20			1
	MS	2304624-01	10.443	110.06	102.04	ug/L		97.6		75 - 125		2
	MSD	2304624-01	10.443	108.19	102.04	ug/L	1.7	95.8	20	75 - 125		3
Dissolved Molybdenum	DUP	2304624-01	0.041000	0.043000		ug/L	4.8		20		J	1
	MS	2304624-01	0.041000	37.132	40.816	ug/L		90.9		75 - 125		2
	MSD	2304624-01	0.041000	37.850	40.816	ug/L	1.9	92.6	20	75 - 125		3
Dissolved Nickel	DUP	2304624-01	1.1650	1.1070		ug/L	5.1		20		J	1
	MS	2304624-01	1.1650	98.566	102.04	ug/L		95.5		75 - 125		2
	MSD	2304624-01	1.1650	100.04	102.04	ug/L	1.5	96.9	20	75 - 125		3
Dissolved Selenium	DUP	2304624-01	ND	ND		ug/L			20			4
	MS	2304624-01	ND	526.02	510.20	ug/L		103		75 - 125		5
	MSD	2304624-01	ND	517.89	510.20	ug/L	1.6	102	20	75 - 125		6
Dissolved Silver	DUP	2304624-01	ND	ND		ug/L			20			1
	MS	2304624-01	ND	40.710	40.816	ug/L		99.7		75 - 125		2
	MSD	2304624-01	ND	40.673	40.816	ug/L	0.1	99.7	20	75 - 125		3

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161499	Used client sample: Y - Description: RV-1, 03/03/2023 14:20											
Dissolved Thallium	DUP	2304624-01	ND	ND		ug/L			20			1
	MS	2304624-01	ND	41.223	40.816	ug/L		101		75 - 125		2
	MSD	2304624-01	ND	39.799	40.816	ug/L	3.5	97.5	20	75 - 125		3
Dissolved Vanadium	DUP	2304624-01	0.92700	0.82700		ug/L	11.4		20		J	1
	MS	2304624-01	0.92700	39.154	40.816	ug/L		93.7		75 - 125		2
	MSD	2304624-01	0.92700	39.283	40.816	ug/L	0.3	94.0	20	75 - 125		3
Dissolved Zinc	DUP	2304624-01	8.1730	8.6020		ug/L	5.1		20			1
	MS	2304624-01	8.1730	128.43	102.04	ug/L		118		75 - 125		2
	MSD	2304624-01	8.1730	128.22	102.04	ug/L	0.2	118	20	75 - 125		3
QC Batch ID: B161635	Used client sample: N											
Dissolved Mercury	DUP	**2304441-03**	**0.043500**	**0.034250**		**ug/L**	**23.8**		**20**		**J,Q01**	7
	MS	**2304441-03**	**0.043500**	**1.1000**	**1.0000**	**ug/L**		**106**		**70 - 130**		8
	MSD	**2304441-03**	**0.043500**	**0.87250**	**1.0000**	**ug/L**	**23.1**	**82.9**	**20**	**70 - 130**	**Q03**	9
QC Batch ID: B162043	Used client sample: N											
Dissolved Mercury	DUP	2304792-01	ND	ND		ug/L			20			10
	MS	2304792-01	ND	0.95250	1.0000	ug/L		95.2		70 - 130		11
	MSD	2304792-01	ND	1.0975	1.0000	ug/L	14.1	110	20	70 - 130		12

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161499-DUP1	DUP	EPA-6020	03/09/23	03/09/23 12:12	KHS	PE-EL4	1
2	B161499-MS1	MS	EPA-6020	03/09/23	03/09/23 12:18	KHS	PE-EL4	1.020
3	B161499-MSD1	MSD	EPA-6020	03/09/23	03/09/23 12:20	KHS	PE-EL4	1.020
4	B161499-DUP2	DUP	EPA-6020	03/09/23	03/09/23 13:09	KHS	PE-EL4	5
5	B161499-MS2	MS	EPA-6020	03/09/23	03/09/23 13:13	KHS	PE-EL4	5.102
6	B161499-MSD2	MSD	EPA-6020	03/09/23	03/09/23 13:15	KHS	PE-EL4	5.102
7	B161635-DUP1	DUP	EPA-7470A	03/13/23	03/13/23 15:17	TMT	CETAC3	1
8	B161635-MS1	MS	EPA-7470A	03/13/23	03/13/23 15:19	TMT	CETAC3	1
9	B161635-MSD1	MSD	EPA-7470A	03/13/23	03/13/23 15:21	TMT	CETAC3	1
10	B162043-DUP1	DUP	EPA-7470A	03/16/23	03/16/23 15:16	TMT	CETAC3	1
11	B162043-MS1	MS	EPA-7470A	03/16/23	03/16/23 15:22	TMT	CETAC3	1
12	B162043-MSD1	MSD	EPA-7470A	03/16/23	03/16/23 15:44	TMT	CETAC3	1

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 03/17/2023 15:04
Project: Groundwaters
Project Number: IMK808
Project Manager: Matt Paulus

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A10	Detection and quantitation limits were raised due to matrix interference.
Q01	Sample precision is not within the control limits.
Q03	Matrix spike recovery(s) was(were) not within the control limits.

Date of Report: 04/18/2023

Matt Paulus

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Client Project:	IMK808
BCL Project:	Soil Samples - Dry weight
BCL Work Order:	2305048
Invoice ID:	B471976, B473946

Enclosed are the results of analyses for samples received by the laboratory on 3/10/2023. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1001411124

Sincerely,

Contact Person: Eli Velazquez
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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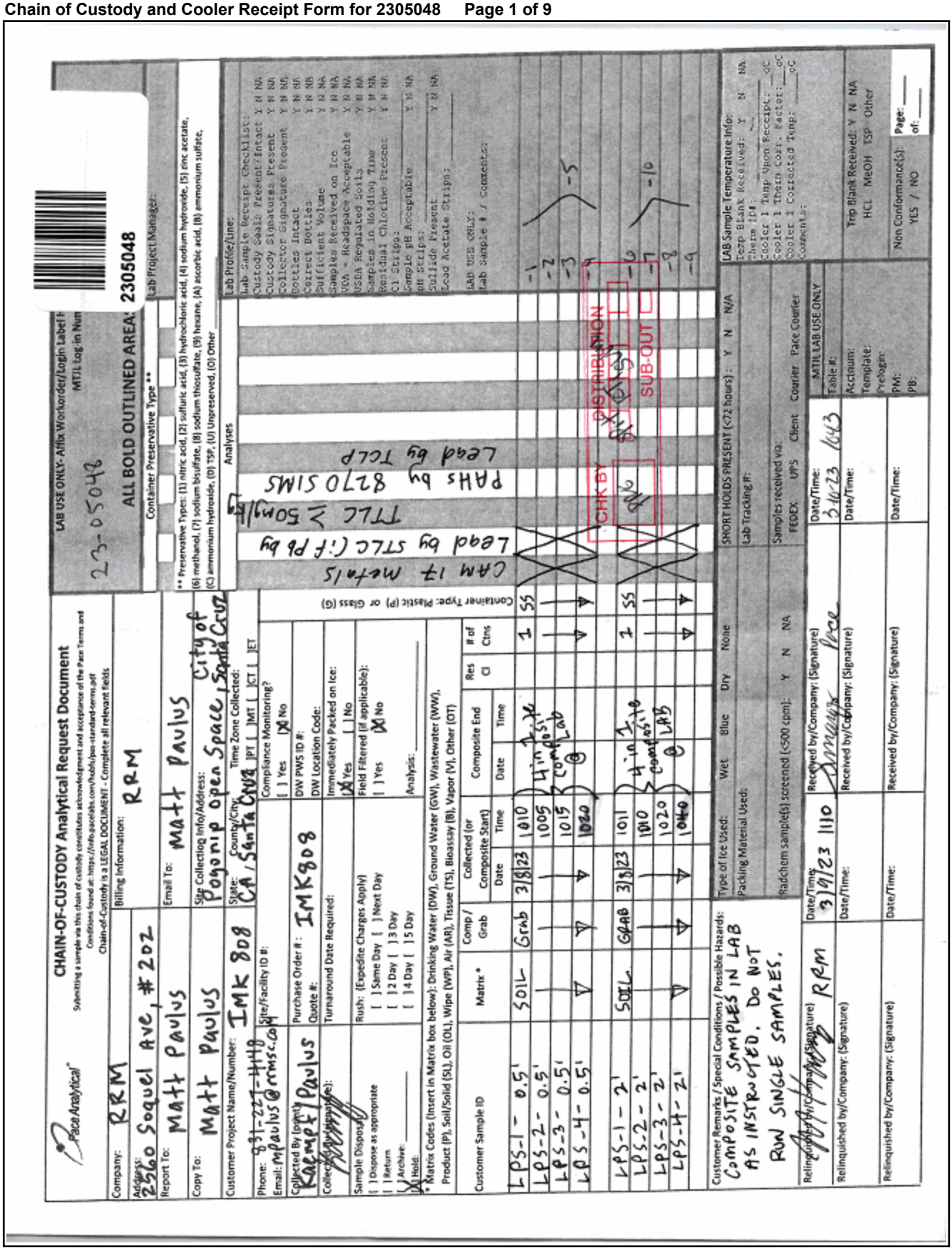


CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here — MTJL Log in Number: 23-050548

ALL BOLD OUTLINED AREAS ARE REQUIRED — 2305048

Company: RRM
Address: 2560 Soquel Ave, #202
Report To: Matt Paulus
Copy To: Matt Paulus
Customer Project Name/Number: IMK 808
Phone: 831-227-4448
Email: mpaulus@rrmsc.com
Collected By (print): Kacmet/Paulus
Collected (signature):
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [X] Hold: IMK808

Billing Information: RRM
Email To: Matt Paulus
Site Collection Info/Address: Pogonip open Space, City of Santa Cruz
State: CA County/City: Santa Cruz Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Site/Facility ID #:
Purchase Order #: IMK808
Quote #:
Turnaround Date Required:
Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
Compliance Monitoring? [ ] Yes [X] No
DW PWS ID #:
DW Location Code:
Immediately Packed on Ice: [X] Yes [ ] No
Field Filtered (if applicable): [ ] Yes [X] No
Analysis: _____

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Container Preservative Type **

Analyses: CAM 17 Metals; Lead by STLC (if Pb by TTLC > 5 mg/L); PAHs by 8270 SIMS; Lead by TCLP

Container Type: Plastic (P) or Glass (G)

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	
LPS-1 - 0.5'	SOIL	Grab	3/8/23	1010				1	SS
LPS-2 - 0.5'				1005					
LPS-3 - 0.5'				1015					
LPS-4 - 0.5'				1020					
LPS-1 - 2'	SOIL	GRAB	3/8/23	1011				1	SS
LPS-2 - 2'				1010					
LPS-3 - 2'				1020					
LPS-4 - 2'				1040					

Customer Remarks / Special Conditions / Possible Hazards: Composite samples in lab as instructed. Do not run single samples.

Type of ice used: Wet Blue Dry None
Packing Material Used:
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #:
Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: ___oC
Cooler 1 Therm Corr. Factor: ___oC
Cooler 1 Corrected Temp: ___oC
Comments:

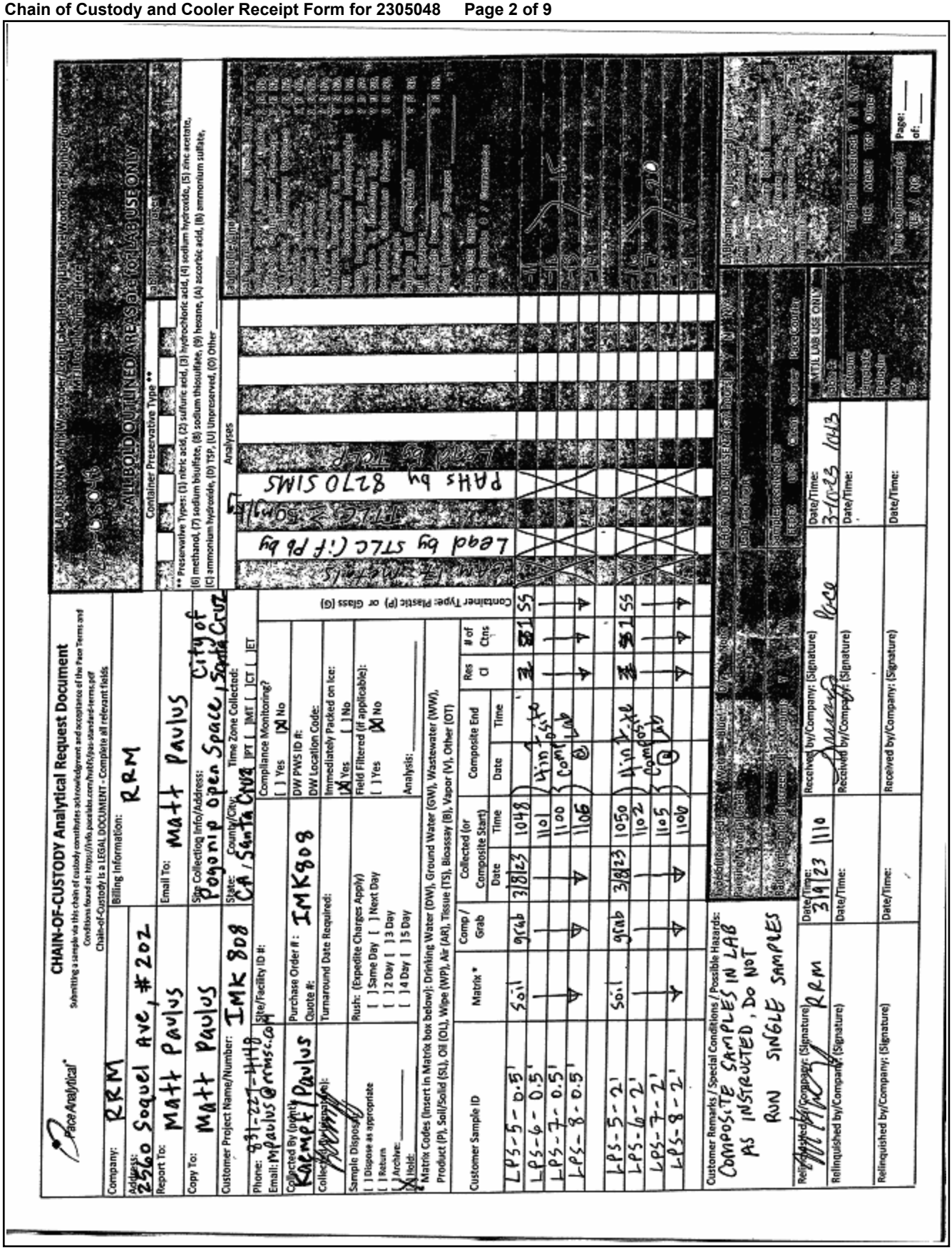
CHK BY [illegible] DISTRIBUTION SUB-OUT

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: ____ of: ____

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
RRM	3/9/23 1110		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:



CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Company: RRM

Address: 2560 Soquel Ave, #202

Report To: Matt Paulus

Copy To: Matt Paulus

Customer Project Name/Number: IMK 808

Phone: 831-227-1110

Email: MPaulus@rrmss.com

Collected By (print): Kaemer Paulus

Billing Information: RRM

Email To: Matt Paulus

Site Collecting Info/Address: Pogonip open Space, City of Santa Cruz

State: CA / County/City: Santa Cruz Time Zone Collected: PT [ ] MT [ ] CT [ ] ET

Site/Facility ID #:

Purchase Order #: IMK808

Quote #:

Turnaround Date Required:

Rush: (Expedite Charges Apply)
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day
[ ] 4 Day [ ] 5 Day

Analysis: _____

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [X] No

Sample Disposal:
[ ] Dispose as appropriate
[ ] Return
[ ] Archive: _____
[X] Hold:

Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
LPS-5-0.5'	Soil	grab	3/8/23	1048				3
LPS-6-0.5'				1101		4 min later		
LPS-7-0.5'				1100		Composite		
LPS-8-0.5'				1106		Lab		
LPS-5-2'	Soil	grab	3/8/23	1050		4 min later		3
LPS-6-2'				1102		Composite		
LPS-7-2'				1105		Lab		
LPS-8-2'				1109				

Customer Remarks / Special Conditions / Possible Hazards:
COMPOSITE SAMPLES IN LAB AS INSTRUCTED, DO NOT RUN SINGLE SAMPLES

Container Preservative Type **
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lead by STLC (if Pb by TTLC > 5mg/L)
PAHs by 8270 SIMS
Lead by 6010

Container Type: Plastic (P) or Glass (G)

Relinquished by/Company: (Signature) — Date/Time: 3/9/23 1110 — Received by/Company: (Signature) — Date/Time: 3-10-23 1043

Relinquished by/Company: (Signature) — Date/Time: — Received by/Company: (Signature) — Date/Time: —

Relinquished by/Company: (Signature) — Date/Time: — Received by/Company: (Signature) — Date/Time: —

LABS ONLY WORK Workorder/Login Label Here / Workorder Number Here

ALL BOLD OUTLINED AREAS ARE FOR LAB USE ONLY

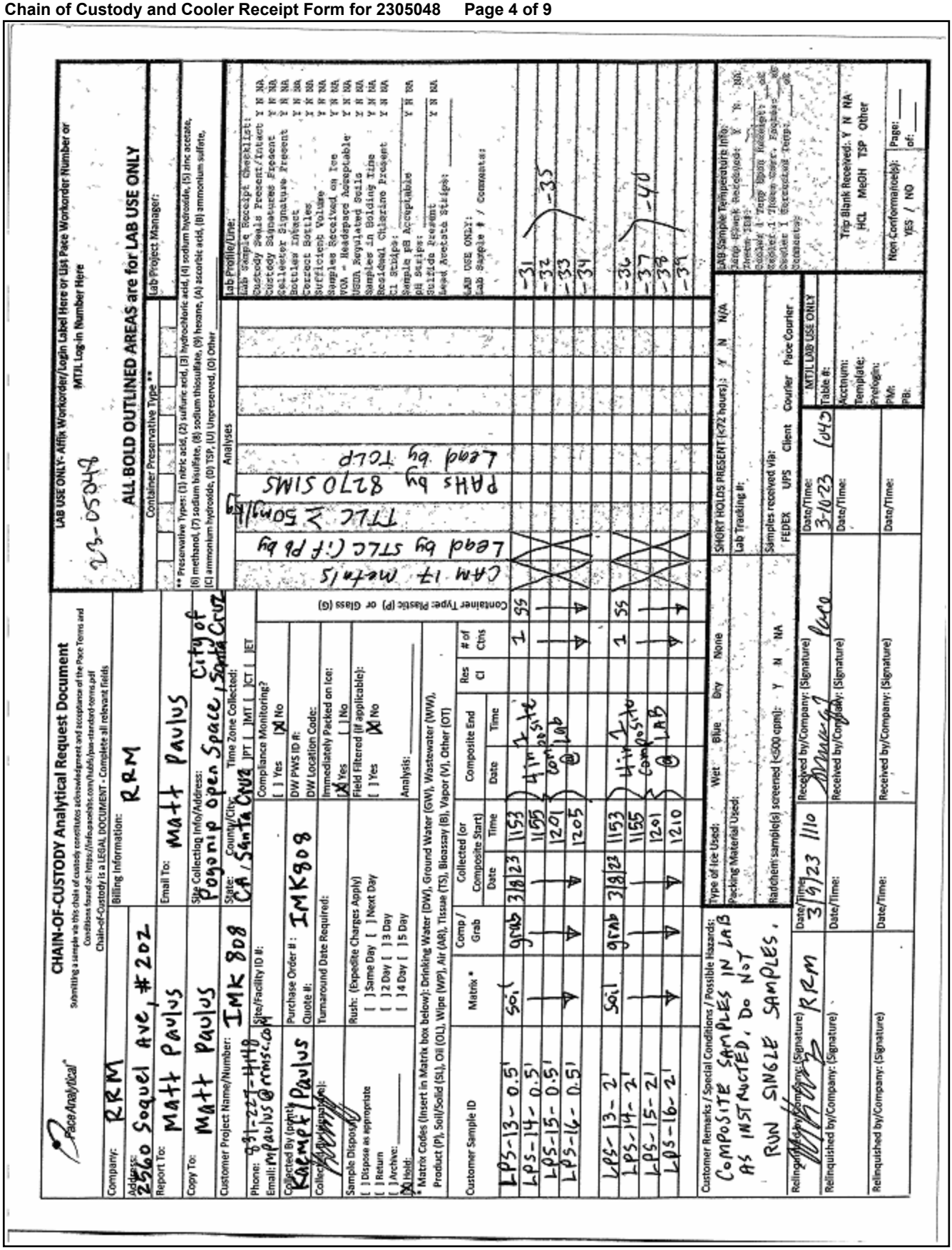
MTJL LAB USE ONLY

Page: ____ of: ____

Chain of Custody and Cooler Receipt Form for 2305048 Page 3 of 9

CHAIN-OF-CUSTODY Analytical Request Document

Company: RRM
Address: 2560 Soquel Ave, #202
Report To: Matt Paulus
Copy To: Matt Paulus
Customer Project Name/Number: IMK 808
Phone: 831-227-4449
Collected By (print): Kaemee Paulus
Collector Signature:
Sample Disposal:
Purchase Order #:
Quote #:
Turnaround Date Required:
Site/Facility ID #:
Email To: Matt Paulus
Billing Information: RRM
Sign Collecting Info/Address: Pogonip open Space, City of Santa Cruz
State: CA County/City: Santa Cruz Time Zone Collected: PT MT CT ET
Compliance Monitoring? Yes No
DW PWS ID #:
DW Location Code:
Immediately Packed on Ice: Yes No
Field Filtered (if applicable): Yes No
Analysis:
Rush: (Expedite Charges Apply)
Same Day Next Day
2 Day 3 Day
4 Day 5 Day
Return
Archive:
Hold:
Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)
Container Type: Plastic (P) or Glass (G)
Container Preservative Type **
** Preservative Types: [1] nitric acid, [2] sulfuric acid, [3] hydrochloric acid, [4] sodium hydroxide, [5] zinc acetate, [6] methanol, [7] sodium bisulfate, [8] sodium thiosulfate, [9] hexane, [A] ascorbic acid, [B] ammonium sulfate, [C] ammonium hydroxide, [D] TSP, [U] Unpreserved, [O] Other
Analyses
Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Time | Composite End Date | Time | Res Cl | # of Ctns
LPS-9 - 0.5' | Soil | grab | 3/8/23 | 1126 | | | | 1
LPS-10 - 0.5' | | | | 1136 | | | | |
LPS-11 - 0.5' | | | | 1135 | | | | |
LPS-12 - 0.5' | | | | 1145 | | | | |
LPS-9 - 2' | Soil | grab | 3/8/23 | 1126 | | | | 1
LPS-10 - 2' | | | | 1136 | | | | |
LPS-11 - 2' | | | | 1140 | | | | |
LPS-12 - 2' | | | | 1145 | | | | |
Customer Remarks / Special Conditions / Possible Hazards: COMPOSITE SAMPLES IN LAB AS INSTRUCTED. DO NOT RUN SINGLE SAMPLES
Relinquished by/Company: (Signature) RRM Date/Time: 3/9/23 1110
Received by/Company: (Signature) Pace Date/Time: 3-10-23 1643
Relinquished by/Company: (Signature) Date/Time:
Received by/Company: (Signature) Date/Time:
Relinquished by/Company: (Signature) Date/Time:
Received by/Company: (Signature) Date/Time:
PACE LAB USE ONLY
Page: of:



CHAIN-OF-CUSTODY Analytical Request Document

Company: RRM
Address: 2560 Soquel Ave, #202
Report To: Matt Paulus
Copy To: Matt Paulus
Customer Project Name/Number: IMK 808
Phone: 831-227-4110
Email: mpaulus@rrmes.com
Collected By (print): Kaemeh Paulus
Purchase Order #: IMK808
Quote #:
Turnaround Date Required:
Billing Information: RRM
Email To: matt paulus
Site Collecting Info/Address: Pogonip open Space, City of Santa Cruz
State: CA
County/City: Santa Cruz
Time Zone Collected: PT | MT | CT | ET
Site/Facility ID #:
Compliance Monitoring? [ ] Yes [X] No
DW PWS ID #:
DW Location Code:
Immediately Packed on Ice: [X] Yes [ ] No
Field Filtered (If applicable): [ ] Yes [X] No
Analysis:

Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [X] Hold:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	Cam 17 Metals	Lead by STLC (if Pb by	TTLC & Soluble	PAHs by 8270 SIMS	Lead by TCLP	
LPS-13-0.5'	Soil	Grab	3/8/23	1153				1	SG	X	X	X	X	X	-31
LPS-14-0.5'				1155											-32
LPS-15-0.5'				1201											-33
LPS-16-0.5'				1205											-34
LPS-13-2'	Soil	Grab	3/8/23	1153				1	SG	X	X	X	X	X	-36
LPS-14-2'				1155											-37
LPS-15-2'				1201											-38
LPS-16-2'				1210											-39

Customer Remarks / Special Conditions / Possible Hazards: Composite samples in lab as instructed, Do not run single samples, RRM

Type of Ice Used: Wet Blue Dry None
Packing Material Used:
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #:
Samples received via: FEDEX UPS Client Courier Pace Courier

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-In Number Here
23-05048
ALL BOLD OUTLINED AREAS are for LAB USE ONLY
Container Preservative Type **
Lab Project Manager:
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other
Analyses
Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips:
Sample pH Acceptable Y N NA
pH Strips:
Sulfide Present Y N NA
Lead Acetate Strips:
LAB USE ONLY:
Lab Sample # / Comments:

LAB Sample Temperature Info:
Temp Blank Received: Y N
Therm ID#:
Cooler 1 Temp Upon Receipt: °C
Cooler 1 Therm. Corr. Factor: °C
Cooler 1 Corrected Temp: °C
Comments:

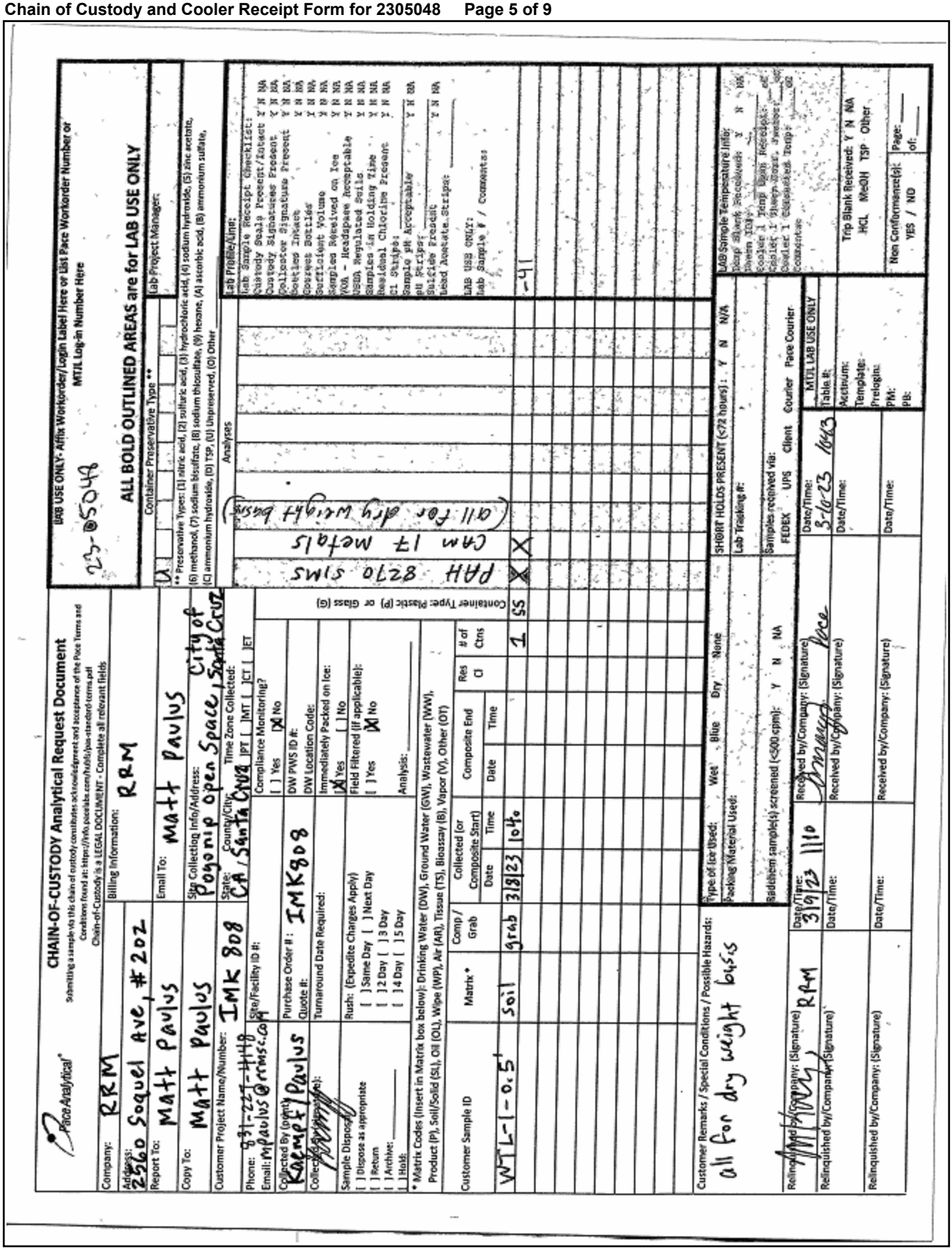
Relinquished by/Company: (Signature) Date/Time: 3/9/23 1110 Received by/Company: (Signature)
Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature)
Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature)

Date/Time: 3-10-23 1043
Date/Time:
Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other
Non Conformance(s): Page: ____
YES / NO of: ____

Chain of Custody and Cooler Receipt Form for 2305048 Page 5 of 9



CHAIN-OF-CUSTODY Analytical Request Document
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here
23-05048

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Company: RRM
Billing Information: RRM
Address: 2960 Soquel Ave, #202
Email To: Matt Paulus
Report To: Matt Paulus
Copy To: Matt Paulus
Site Collection Info/Address: Pogonip Open Space, City of Santa Cruz
Customer Project Name/Number: IMK 808
State: CA / County/City: Santa Cruz Time Zone Collected: PT [ ] MT [ ] CT [ ] ET
Phone: 831-227-4448
Email: mpaulus@rrmsc.com
Site/Facility ID #:
Collected By (print): Kaemper Paulus
Purchase Order #: IMK808
Quote #:
Compliance Monitoring? [ ] Yes [X] No
DW PWS ID #:
DW Location Code:
Turnaround Date Required:
Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____
Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
Field Filtered (if applicable): [ ] Yes [X] No
Analysis: _____

Container Preservative Type **: [U]
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

Analyses: PAH 8270 SIMS; Cam 17 metals (all for dry weight basis)

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact: Y N NA
Custody Signatures Present: Y N NA
Collector Signature Present: Y N NA
Bottles Intact: Y N NA
Correct Bottles: Y N NA
Sufficient Volume: Y N NA
Samples Received on Ice: Y N NA
VOA - Headspace Acceptable: Y N NA
USDA Regulated Soils: Y N NA
Samples in Holding Time: Y N NA
Residual Chlorine Present: Y N NA
Cl Strips: _____
Sample pH Acceptable: Y N NA
pH Strips: _____
Sulfide Present: Y N NA
Lead Acetate Strips: _____
LAB USE ONLY:
Lab Sample # / Comments:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	
WTL-1-0.5'	Soil	grab	3/8/23	1040				1	5S	X X

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Remarks / Special Conditions / Possible Hazards:
all for dry weight basis

Type of Ice Used: Wet Blue Dry None
Packing Material Used:
Baddisem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #:
Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____
Cooler 1 Therm Corr. Factor: ____
Cooler 1 Corrected Temp: ____

Comments:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: ____ of: ____

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
RRM	3/9/23 1110	Pace	3-10-23 1043
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

PACE ANALYTICAL — COOLER RECEIPT FORM — Page 1 Of 4

Submission #: 23-05048

SHIPPING INFORMATION
Fed Ex [X] UPS [ ] GSO / GLS [ ] Hand Delivery [ ]
Pace Lab Field Service [ ] Other [ ] (Specify)_____

SHIPPING CONTAINER
Ice Chest [X] None [ ] Box [ ]
Other [ ] (Specify)_____

FREE LIQUID
YES [X] NO [ ]
(W) / S

Refrigerant: Ice [X] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals: Ice Chest [ ] Intact? Yes [ ] No [ ] | Containers [ ] Intact? Yes [ ] No [ ] | None [X] Comments:

All samples received? Yes [ ] No [ ] | All samples containers intact? Yes [ ] No [ ] | Description(s) match COC? Yes [ ] No [ ]

COC Received [X] YES [ ] NO

Emissivity: 0.97 Container: Clear glass Thermometer ID: 337

Temperature: (A) 5.6 °C / (C) 5.3 °C

Date/Time 3-10-23

Analyst Init SMH/1043

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
P1A PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
(8oz) / 16oz / 32oz JAR	A	A	A	A		A	A	A	A	
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Did not receive -36 nor -38

Sample Numbering Completed By: PRE Date/Time: 3/10/23 2355

A = Actual / C = Corrected

Rev 23 05/20/22

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PACE ANALYTICAL — COOLER RECEIPT FORM — Page 2 Of 4

Submission #: 23-05048

SHIPPING INFORMATION
Fed Ex [X] UPS ☐ GSO / GLS ☐ Hand Delivery ☐
Pace Lab Field Service ☐ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest [X] None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES [X] NO ☐
(W) / S

Refrigerant: Ice [X] Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None [X] Comments:

All samples received? Yes [✓] No ☐ All samples containers intact? Yes [✓] No ☐ Description(s) match COC? Yes [✓] No ☐

COC Received [X] YES ☐ NO

Emissivity: 0.97 Container: Clear glass Thermometer ID: 337

Temperature: (A) 5.6 °C / (C) 5.3 °C

Date/Time 3-10-23

Analyst Init SMH/1043

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr+6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR	A	A	A	A		A	A	A	A	
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: PRE Date/Time: 3/10/23 2355

A = Actual / C = Corrected

Rev 23 05/20/22

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PACE ANALYTICAL — COOLER RECEIPT FORM — Page 3 Of 4

Submission #: 23-05048

SHIPPING INFORMATION: Fed Ex [X] UPS [ ] GSO / GLS [ ] Hand Delivery [ ] Pace Lab Field Service [ ] Other [ ] (Specify)

SHIPPING CONTAINER: Ice Chest [X] None [ ] Box [ ] Other [ ] (Specify)

FREE LIQUID: YES [X] NO [ ] (W) / S

Refrigerant: Ice [X] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals: Ice Chest [ ] Intact? Yes [ ] No [ ] Containers [ ] Intact? Yes [ ] No [ ] None [X] Comments:

All samples received? Yes [X] No [ ] All samples containers intact? Yes [X] No [ ] Description(s) match COC? Yes [X] No [ ]

COC Received [X] YES [ ] NO

Emissivity: 0.97 Container: Clear glass Thermometer ID: 337 Date/Time 3-10-23

Temperature: (A) 5.6 °C / (C) 5.3 °C Analyst Init SMH/1043

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	21	22	23	24	5	26	27	28	29	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr+6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
4oz / 16oz / 32oz JAR	A	A	A	A		A	A	A	A	
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: PRE Date/Time: 3/10/23 2355

A = Actual / C = Corrected

Rev 23 05/20/22

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PACE ANALYTICAL

COOLER RECEIPT FORM

Submission #: 23-05048 Page 4 Of 4

SHIPPING INFORMATION
Fed Ex [X] UPS [ ] GSO / GLS [ ] Hand Delivery [ ]
Pace Lab Field Service [ ] Other [ ] (Specify)

SHIPPING CONTAINER
Ice Chest [X] None [ ] Box [ ]
Other [ ] (Specify)

FREE LIQUID
YES [X] NO [ ]
(W) / S

Refrigerant: Ice [X] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals: Ice Chest [ ] Intact? Yes [ ] No [ ] Containers [ ] Intact? Yes [ ] No [ ] None [X] Comments:

All samples received? Yes [ ] No [✓] All samples containers intact? Yes [✓] No [ ] Description(s) match COC? Yes [✓] No [ ]

COC Received [X] YES [ ] NO

Emissivity: 0.97 Container: Clear glass Thermometer ID: 337

Temperature: (A) 5.6 °C / (C) 5.3 °C

Date/Time 3-10-23

Analyst Init SMH/1043

SAMPLE CONTAINERS	SAMPLE NUMBERS									41
	31	32	33	34	5	6	37	8	39	40
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{6+}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE steel	A,B	A	A,B	A			A	A	A	
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: PRE Date/Time: 3/10/23 2355

A = Actual / C = Corrected

Rev 23 05/20/22

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-01	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-1-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-02	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-2-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-03	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-3-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-04	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-4-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-05	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-1-0.5, LSP-2-0.5, LSP-3-0.5, LSP-4-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-06	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:11
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-1-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-07	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-2-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-08	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-3-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-09	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-4-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-10	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-1-2', LSP-2-2', LSP-3-2', LSP-4-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-11	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:48
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-5-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-12	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:01
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-6-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-13	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-7-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-14	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-8-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-15	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:48
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-5-0.5', LSP-6-0.5', LSP-7-0.5', LSP-8-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-16	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-5-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-17	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:02
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-6-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-18	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-7-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-19	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:06
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-8-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-20	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-21	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:26
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-9-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-22	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:36
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-10-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-23	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-11-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-24	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-12-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-25	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:26
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-9-0.5, LSP-10-0.5, LSP-11-0.5, LSP-12-0.5	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-26	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:26
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-9-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-27	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:36
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-10-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-28	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-11-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

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Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-29	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-12-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-30	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:26
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-9-2', LSP-10-2', LSP-11-2', LSP-12-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-31	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:53
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-13-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-32	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-14-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-33	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 12:01
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-15-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-34	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 12:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-16-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-35	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:53
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2305048-36	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:53
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-13-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-37	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-14-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-38	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 12:01
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-15-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-39	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 12:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	LPS-16-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-40	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 11:53
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Composite of LSP-13-2', LSP-14-2', LSP-15-2', LSP-16-2'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil
2305048-41	**COC Number:**	---	**Receive Date:**	03/10/2023 10:43
	Project Number:	IMK808	**Sampling Date:**	03/08/2023 10:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	WTL-1-0.5'	**Lab Matrix:**	Solids
	Sampled By:	Kaempf/Paulus of RRMS	**Sample Type:**	Soil

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-05 | **Client Sample Name:** IMK808, Composite of LSP-1-0.5, LSP-2-0.5, LSP-3-0.5, LSP-4-0.5, 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**20.7 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**79.3 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

WET Test (STLC)

BCL Sample ID: 2305048-05 | **Client Sample Name:** IMK808, Composite of LSP-1-0.5, LSP-2-0.5, LSP-3-0.5, LSP-4-0.5, 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	STLC Limits	Lab Quals	DCN
Lead	**8.7 (AR)**	**mg/L**	**0.50 (AR)**	**0.13 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/26/23 12:30	03/27/23 11:19	JCC	PE-OP4	1	B162682	EPA 3005A

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

TCLP Toxicity

BCL Sample ID: 2305048-05 | **Client Sample Name:** IMK808, Composite of LSP-1-0.5, LSP-2-0.5, LSP-3-0.5, LSP-4-0.5, 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TCLP Limits	Lab Quals	DCN
Lead	**0.62 (AR)**	**mg/L**	**0.50 (AR)**	**0.030 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/14/23 08:50	04/14/23 20:42	JCC	PE-OP3	1	B164191	EPA 3050B

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-05 | **Client Sample Name:** IMK808, Composite of LSP-1-0.5, LSP-2-0.5, LSP-3-0.5, LSP-4-0.5, 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	0.48	mg/kg	6.3	0.42	EPA-6010B	500	J	1
Arsenic	**3.3**	**mg/kg**	**1.3**	**0.50**	**EPA-6010B**	500		2
Barium	**81**	**mg/kg**	**0.63**	**0.23**	**EPA-6010B**	10000		2
Beryllium	**0.41**	**mg/kg**	**0.63**	**0.059**	**EPA-6010B**	75	**J**	2
Cadmium	ND	mg/kg	0.63	0.066	EPA-6010B	100		2
Chromium	**12**	**mg/kg**	**0.63**	**0.063**	**EPA-6010B**	2500		2
Cobalt	**5.1**	**mg/kg**	**3.2**	**0.12**	**EPA-6010B**	8000		2
Copper	**4.9**	**mg/kg**	**1.3**	**0.063**	**EPA-6010B**	2500		2
Lead	**170**	**mg/kg**	**3.2**	**0.52**	**EPA-6010B**	1000		2
Mercury	**0.49**	**mg/kg**	**0.20**	**0.020**	**EPA-7471A**	20		3
Molybdenum	ND	mg/kg	3.2	0.063	EPA-6010B	3500		2
Nickel	**5.3**	**mg/kg**	**0.63**	**0.19**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.3	1.2	EPA-6010B	100		2
Silver	ND	mg/kg	0.63	0.084	EPA-6010B	500		2
Thallium	ND	mg/kg	6.3	0.81	EPA-6010B	700		2
Vanadium	**18**	**mg/kg**	**0.63**	**0.14**	**EPA-6010B**	2400		2
Zinc	**38**	**mg/kg**	**3.2**	**0.11**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 17:55	DVS	PE-OP4	0.962	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:20	DVS	PE-OP4	0.962	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:13	TMT	CETAC3	1.008	B161857	EPA 7471A

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-10 | **Client Sample Name:** IMK808, Composite of LSP-1-2', LSP-2-2', LSP-3-2', LSP-4-2', 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**25.7 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**74.3 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-10 | **Client Sample Name:** IMK808, Composite of LSP-1-2', LSP-2-2', LSP-3-2', LSP-4-2', 3/8/2023 10:20:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	ND	mg/kg	6.7	0.44	EPA-6010B	500		1
Arsenic	**2.8**	**mg/kg**	**1.3**	**0.54**	**EPA-6010B**	500		2
Barium	**93**	**mg/kg**	**0.67**	**0.24**	**EPA-6010B**	10000		2
Beryllium	**0.52**	**mg/kg**	**0.67**	**0.063**	**EPA-6010B**	75	**J**	2
Cadmium	ND	mg/kg	0.67	0.070	EPA-6010B	100		2
Chromium	**13**	**mg/kg**	**0.67**	**0.067**	**EPA-6010B**	2500		2
Cobalt	**5.9**	**mg/kg**	**3.4**	**0.13**	**EPA-6010B**	8000		2
Copper	**4.7**	**mg/kg**	**1.3**	**0.067**	**EPA-6010B**	2500		2
Lead	**10**	**mg/kg**	**3.4**	**0.55**	**EPA-6010B**	1000		2
Mercury	0.040	mg/kg	0.22	0.022	EPA-7471A	20	J	3
Molybdenum	ND	mg/kg	3.4	0.067	EPA-6010B	3500		2
Nickel	**5.8**	**mg/kg**	**0.67**	**0.20**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.3	1.3	EPA-6010B	100		2
Silver	ND	mg/kg	0.67	0.090	EPA-6010B	500		2
Thallium	ND	mg/kg	6.7	0.86	EPA-6010B	700		2
Vanadium	**20**	**mg/kg**	**0.67**	**0.15**	**EPA-6010B**	2400		2
Zinc	**35**	**mg/kg**	**3.4**	**0.12**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 17:56	DVS	PE-OP4	0.909	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:21	DVS	PE-OP4	0.909	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:15	TMT	CETAC3	0.962	B161857	EPA 7471A

DCN = Data Continuation Number

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2305048-15 | **Client Sample Name:** IMK808, Composite of LSP-5-0.5', LSP-6-0.5', LSP-7-0.5', LSP-8-0.5', 3/8/2023 10:48:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	**0.078**	**mg/kg**	**0.0073**	**0.0032**	**EPA-8270C-SIM**	ND	**A10**	1
Acenaphthylene	ND	mg/kg	0.0073	0.0022	EPA-8270C-SIM	ND	A10	1
Anthracene	**0.12**	**mg/kg**	**0.0073**	**0.0020**	**EPA-8270C-SIM**	ND	**A10**	1
Benzo[a]anthracene	**0.53**	**mg/kg**	**0.036**	**0.012**	**EPA-8270C-SIM**	ND	**A10**	2
Benzo[b]fluoranthene	**1.0**	**mg/kg**	**0.073**	**0.019**	**EPA-8270C-SIM**	ND	**A10**	3
Benzo[k]fluoranthene	**0.13**	**mg/kg**	**0.0073**	**0.0027**	**EPA-8270C-SIM**	ND	**A10**	1
Benzo[a]pyrene	**1.0**	**mg/kg**	**0.073**	**0.019**	**EPA-8270C-SIM**	ND	**A10**	3
Benzo[g,h,i]perylene	**0.97**	**mg/kg**	**0.073**	**0.017**	**EPA-8270C-SIM**	ND	**A10**	3
Chrysene	**0.57**	**mg/kg**	**0.036**	**0.013**	**EPA-8270C-SIM**	ND	**A10**	2
Dibenzo[a,h]anthracene	**0.38**	**mg/kg**	**0.036**	**0.0058**	**EPA-8270C-SIM**	ND	**A10**	2
Fluoranthene	**0.43**	**mg/kg**	**0.036**	**0.0091**	**EPA-8270C-SIM**	ND	**A10**	2
Fluorene	**0.0070**	**mg/kg**	**0.0073**	**0.0024**	**EPA-8270C-SIM**	ND	**J,A10**	1
Indeno[1,2,3-cd]pyrene	**0.96**	**mg/kg**	**0.073**	**0.011**	**EPA-8270C-SIM**	ND	**A10**	3
Naphthalene	0.0036	mg/kg	0.0073	0.0022	EPA-8270C-SIM	ND	J,A10	1
Phenanthrene	**0.099**	**mg/kg**	**0.0073**	**0.0021**	**EPA-8270C-SIM**	ND	**A10**	1
Pyrene	**0.47**	**mg/kg**	**0.036**	**0.015**	**EPA-8270C-SIM**	ND	**A10**	2
Nitrobenzene-d5 (Surrogate)	38.4	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	8.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1
p-Terphenyl-d14 (Surrogate)	10.7	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/15/23 19:40	03/16/23 12:45	OLH	MS-B7	2.020	B162013	EPA 3550B
2	EPA-8270C-SIM	03/15/23 19:40	03/16/23 14:26	OLH	MS-B7	10.101	B162013	EPA 3550B
3	EPA-8270C-SIM	03/15/23 19:40	03/16/23 14:48	OLH	MS-B7	20.202	B162013	EPA 3550B

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-15 | **Client Sample Name:** IMK808, Composite of LSP-5-0.5', LSP-6-0.5', LSP-7-0.5', LSP-8-0.5', 3/8/2023 10:48:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**17.7 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**82.3 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-15 | **Client Sample Name:** IMK808, Composite of LSP-5-0.5', LSP-6-0.5', LSP-7-0.5', LSP-8-0.5', 3/8/2023 10:48:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	0.53	mg/kg	6.1	0.40	EPA-6010B	500	J	1
Arsenic	**3.1**	**mg/kg**	**1.2**	**0.49**	**EPA-6010B**	500		2
Barium	**88**	**mg/kg**	**0.61**	**0.22**	**EPA-6010B**	10000		2
Beryllium	**0.32**	**mg/kg**	**0.61**	**0.057**	**EPA-6010B**	75	**J**	2
Cadmium	0.080	mg/kg	0.61	0.063	EPA-6010B	100	J	2
Chromium	**15**	**mg/kg**	**0.61**	**0.061**	**EPA-6010B**	2500		2
Cobalt	**2.9**	**mg/kg**	**3.0**	**0.12**	**EPA-6010B**	8000	**J**	2
Copper	**7.2**	**mg/kg**	**1.2**	**0.061**	**EPA-6010B**	2500		2
Lead	**43**	**mg/kg**	**3.0**	**0.50**	**EPA-6010B**	1000		2
Mercury	**0.21**	**mg/kg**	**0.19**	**0.019**	**EPA-7471A**	20		3
Molybdenum	ND	mg/kg	3.0	0.061	EPA-6010B	3500		2
Nickel	**6.5**	**mg/kg**	**0.61**	**0.18**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		2
Silver	ND	mg/kg	0.61	0.081	EPA-6010B	500		2
Thallium	ND	mg/kg	6.1	0.78	EPA-6010B	700		2
Vanadium	**16**	**mg/kg**	**0.61**	**0.13**	**EPA-6010B**	2400		2
Zinc	**35**	**mg/kg**	**3.0**	**0.11**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 17:58	DVS	PE-OP4	0.943	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:22	DVS	PE-OP4	0.943	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:17	TMT	CETAC3	0.977	B161857	EPA 7471A

DCN = Data Continuation Number

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2305048-20 | **Client Sample Name:** IMK808, Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2', 3/8/2023 10:50:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	ND	mg/kg	0.0036	0.0016	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	mg/kg	0.0036	0.0011	EPA-8270C-SIM	ND		1
Anthracene	ND	mg/kg	0.0036	0.00097	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	mg/kg	0.0036	0.0011	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	mg/kg	0.0036	0.00094	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	mg/kg	0.0036	0.0013	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	mg/kg	0.0036	0.00093	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	mg/kg	0.0036	0.00086	EPA-8270C-SIM	ND		1
Chrysene	ND	mg/kg	0.0036	0.0013	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	mg/kg	0.0036	0.00057	EPA-8270C-SIM	ND		1
Fluoranthene	ND	mg/kg	0.0036	0.00089	EPA-8270C-SIM	ND		1
Fluorene	ND	mg/kg	0.0036	0.0012	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	mg/kg	0.0036	0.00056	EPA-8270C-SIM	ND		1
Naphthalene	ND	mg/kg	0.0036	0.0011	EPA-8270C-SIM	ND		1
Phenanthrene	ND	mg/kg	0.0036	0.0010	EPA-8270C-SIM	ND		1
Pyrene	ND	mg/kg	0.0036	0.0014	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	31.6	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	8.5	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1
p-Terphenyl-d14 (Surrogate)	27.0	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/15/23 19:40	03/16/23 12:22	OLH	MS-B7	1.003	B162013	EPA 3550B

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-20 | **Client Sample Name:** IMK808, Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2', 3/8/2023 10:50:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**16.2 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**83.8 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-20 | **Client Sample Name:** IMK808, Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2', 3/8/2023 10:50:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	0.49	mg/kg	6.0	0.39	EPA-6010B	500	J	1
Arsenic	**3.4**	**mg/kg**	**1.2**	**0.48**	**EPA-6010B**	500		2
Barium	**84**	**mg/kg**	**0.60**	**0.21**	**EPA-6010B**	10000		2
Beryllium	**0.37**	**mg/kg**	**0.60**	**0.056**	**EPA-6010B**	75	**J**	2
Cadmium	ND	mg/kg	0.60	0.062	EPA-6010B	100		2
Chromium	**16**	**mg/kg**	**0.60**	**0.060**	**EPA-6010B**	2500		2
Cobalt	**2.7**	**mg/kg**	**3.0**	**0.12**	**EPA-6010B**	8000	**J**	2
Copper	**3.8**	**mg/kg**	**1.2**	**0.060**	**EPA-6010B**	2500		2
Lead	**6.2**	**mg/kg**	**3.0**	**0.49**	**EPA-6010B**	1000		2
Mercury	**0.11**	**mg/kg**	**0.19**	**0.019**	**EPA-7471A**	20	**J**	3
Molybdenum	ND	mg/kg	3.0	0.060	EPA-6010B	3500		2
Nickel	**7.0**	**mg/kg**	**0.60**	**0.18**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		2
Silver	ND	mg/kg	0.60	0.080	EPA-6010B	500		2
Thallium	ND	mg/kg	6.0	0.76	EPA-6010B	700		2
Vanadium	**20**	**mg/kg**	**0.60**	**0.13**	**EPA-6010B**	2400		2
Zinc	**20**	**mg/kg**	**3.0**	**0.10**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 17:59	DVS	PE-OP4	1	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:23	DVS	PE-OP4	1	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:19	TMT	CETAC3	0.992	B161857	EPA 7471A

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-25 | **Client Sample Name:** IMK808, Composite of LSP-9-0.5, LSP-10-0.5, LSP-11-0.5, LSP-12-0.5, 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**16.5 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**83.5 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

WET Test (STLC)

BCL Sample ID: 2305048-25 | **Client Sample Name:** IMK808, Composite of LSP-9-0.5, LSP-10-0.5, LSP-11-0.5, LSP-12-0.5, 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	STLC Limits	Lab Quals	DCN
Lead	**24 (AR)**	**mg/L**	**0.50 (AR)**	**0.13 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/26/23 12:30	03/27/23 11:20	JCC	PE-OP4	1	B162682	EPA 3005A

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

TCLP Toxicity

BCL Sample ID: 2305048-25 | **Client Sample Name:** IMK808, Composite of LSP-9-0.5, LSP-10-0.5, LSP-11-0.5, LSP-12-0.5, 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TCLP Limits	Lab Quals	DCN
Lead	**1.3 (AR)**	**mg/L**	**0.50 (AR)**	**0.030 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/14/23 08:50	04/14/23 20:47	JCC	PE-OP3	1	B164191	EPA 3050B

DCN = Data Continuation Number

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-25 | **Client Sample Name:** IMK808, Composite of LSP-9-0.5, LSP-10-0.5, LSP-11-0.5, LSP-12-0.5, 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	**2.7**	**mg/kg**	**6.0**	**0.40**	**EPA-6010B**	500	**J**	1
Arsenic	**7.1**	**mg/kg**	**1.2**	**0.48**	**EPA-6010B**	500		2
Barium	**140**	**mg/kg**	**0.60**	**0.22**	**EPA-6010B**	10000		2
Beryllium	**0.55**	**mg/kg**	**0.60**	**0.056**	**EPA-6010B**	75	**J**	2
Cadmium	ND	mg/kg	0.60	0.062	EPA-6010B	100		2
Chromium	**22**	**mg/kg**	**0.60**	**0.060**	**EPA-6010B**	2500		2
Cobalt	**8.0**	**mg/kg**	**3.0**	**0.12**	**EPA-6010B**	8000		2
Copper	**7.3**	**mg/kg**	**1.2**	**0.060**	**EPA-6010B**	2500		2
Lead	**520**	**mg/kg**	**3.0**	**0.49**	**EPA-6010B**	1000		2
Mercury	0.026	mg/kg	0.19	0.019	EPA-7471A	20	J	3
Molybdenum	ND	mg/kg	3.0	0.060	EPA-6010B	3500		2
Nickel	**12**	**mg/kg**	**0.60**	**0.18**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		2
Silver	ND	mg/kg	0.60	0.080	EPA-6010B	500		2
Thallium	ND	mg/kg	6.0	0.77	EPA-6010B	700		2
Vanadium	**32**	**mg/kg**	**0.60**	**0.13**	**EPA-6010B**	2400		2
Zinc	**28**	**mg/kg**	**3.0**	**0.10**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 18:00	DVS	PE-OP4	0.962	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:25	DVS	PE-OP4	0.962	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:21	TMT	CETAC3	0.977	B161857	EPA 7471A

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-30 | **Client Sample Name:** IMK808, Composite of LSP-9-2', LSP-10-2', LSP-11-2', LSP-12-2', 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**16.8 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**83.2 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

WET Test (STLC)

BCL Sample ID: 2305048-30 | **Client Sample Name:** IMK808, Composite of LSP-9-2', LSP-10-2', LSP-11-2', LSP-12-2', 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	STLC Limits	Lab Quals	DCN
Lead	**10 (AR)**	**mg/L**	**0.50 (AR)**	**0.13 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/26/23 12:30	03/27/23 11:22	JCC	PE-OP4	1	B162682	EPA 3005A

DCN = Data Continuation Number

Pace Analytical
ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

TCLP Toxicity

BCL Sample ID: 2305048-30 | **Client Sample Name:** IMK808, Composite of LSP-9-2', LSP-10-2', LSP-11-2', LSP-12-2', 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TCLP Limits	Lab Quals	DCN
Lead	**3.8 (AR)**	**mg/L**	**0.50 (AR)**	**0.030 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/14/23 08:50	04/14/23 20:48	JCC	PE-OP3	1	B164191	EPA 3050B

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-30 | **Client Sample Name:** IMK808, Composite of LSP-9-2', LSP-10-2', LSP-11-2', LSP-12-2', 3/8/2023 11:26:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	**2.0**	**mg/kg**	**6.0**	**0.40**	**EPA-6010B**	500	**J**	1
Arsenic	**6.5**	**mg/kg**	**1.2**	**0.48**	**EPA-6010B**	500		2
Barium	**150**	**mg/kg**	**0.60**	**0.22**	**EPA-6010B**	10000		2
Beryllium	**0.59**	**mg/kg**	**0.60**	**0.057**	**EPA-6010B**	75	**J**	2
Cadmium	ND	mg/kg	0.60	0.063	EPA-6010B	100		2
Chromium	**21**	**mg/kg**	**0.60**	**0.060**	**EPA-6010B**	2500		2
Cobalt	**7.9**	**mg/kg**	**3.0**	**0.12**	**EPA-6010B**	8000		2
Copper	**7.0**	**mg/kg**	**1.2**	**0.060**	**EPA-6010B**	2500		2
Lead	**240**	**mg/kg**	**3.0**	**0.49**	**EPA-6010B**	1000		2
Mercury	0.033	mg/kg	0.19	0.019	EPA-7471A	20	J	3
Molybdenum	ND	mg/kg	3.0	0.060	EPA-6010B	3500		2
Nickel	**13**	**mg/kg**	**0.60**	**0.18**	**EPA-6010B**	2000		2
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		2
Silver	ND	mg/kg	0.60	0.081	EPA-6010B	500		2
Thallium	ND	mg/kg	6.0	0.77	EPA-6010B	700		2
Vanadium	**30**	**mg/kg**	**0.60**	**0.13**	**EPA-6010B**	2400		2
Zinc	**27**	**mg/kg**	**3.0**	**0.10**	**EPA-6010B**	5000		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/15/23 09:30	03/21/23 18:01	DVS	PE-OP4	0.935	B161923	EPA 3050B
2	EPA-6010B	03/15/23 09:30	03/17/23 20:26	DVS	PE-OP4	0.935	B161923	EPA 3050B
3	EPA-7471A	03/14/23 11:15	03/14/23 14:27	TMT	CETAC3	0.962	B161857	EPA 7471A

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-35 | **Client Sample Name:** IMK808, Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0, 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**18.8 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**81.2 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

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Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

WET Test (STLC)

BCL Sample ID: 2305048-35 | **Client Sample Name:** IMK808, Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0, 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	STLC Limits	Lab Quals	DCN
Lead	**8.4 (AR)**	**mg/L**	**0.50 (AR)**	**0.13 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/26/23 12:30	03/27/23 11:24	JCC	PE-OP4	1	B162682	EPA 3005A

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

TCLP Toxicity

BCL Sample ID: 2305048-35 | **Client Sample Name:** IMK808, Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0, 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TCLP Limits	Lab Quals	DCN
Lead	**0.83 (AR)**	**mg/L**	**0.50 (AR)**	**0.030 (AR)**	**EPA-6010B**	5.0		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/14/23 08:50	04/14/23 20:32	JCC	PE-OP3	1	B164191	EPA 3050B

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-35 | **Client Sample Name:** IMK808, Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0, 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	1.1	mg/kg	6.2	0.41	EPA-6010B	500	J	1
Arsenic	**3.2**	**mg/kg**	**1.2**	**0.49**	**EPA-6010B**	500		1
Barium	**95**	**mg/kg**	**0.62**	**0.22**	**EPA-6010B**	10000		1
Beryllium	**0.43**	**mg/kg**	**0.62**	**0.058**	**EPA-6010B**	75	**J**	1
Cadmium	ND	mg/kg	0.62	0.064	EPA-6010B	100		1
Chromium	**10**	**mg/kg**	**0.62**	**0.062**	**EPA-6010B**	2500		1
Cobalt	**3.3**	**mg/kg**	**3.1**	**0.12**	**EPA-6010B**	8000		1
Copper	**4.1**	**mg/kg**	**1.2**	**0.062**	**EPA-6010B**	2500		1
Lead	**210**	**mg/kg**	**3.1**	**0.51**	**EPA-6010B**	1000		1
Mercury	ND	mg/kg	0.20	0.020	EPA-7471A	20		2
Molybdenum	**0.23**	**mg/kg**	**3.1**	**0.062**	**EPA-6010B**	3500	**J**	1
Nickel	**4.2**	**mg/kg**	**0.62**	**0.18**	**EPA-6010B**	2000		1
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		1
Silver	ND	mg/kg	0.62	0.083	EPA-6010B	500		1
Thallium	ND	mg/kg	6.2	0.79	EPA-6010B	700		1
Vanadium	**16**	**mg/kg**	**0.62**	**0.14**	**EPA-6010B**	2400		1
Zinc	**15**	**mg/kg**	**3.1**	**0.11**	**EPA-6010B**	5000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/17/23 07:40	03/20/23 17:24	DVS	PE-OP4	0.962	B162102	EPA 3050B
2	EPA-7471A	03/21/23 14:15	03/22/23 11:30	TMT	CETAC3	1.008	B162367	EPA 7471A

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-40 | **Client Sample Name:** IMK808, Composite of LSP-13-2', LSP-14-2', LSP-15-2', LSP-16-2', 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**19.9 (AR)**	**%**	**0.06**	**0.06**	**Calc**	ND		1
Solids	**80.1 (AR)**	**%**	**0.06**	**0.06**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 13:47	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-40 | **Client Sample Name:** IMK808, Composite of LSP-13-2', LSP-14-2', LSP-15-2', LSP-16-2', 3/8/2023 11:53:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	0.69	mg/kg	6.2	0.41	EPA-6010B	500	J	1
Arsenic	**4.3**	**mg/kg**	**1.2**	**0.50**	**EPA-6010B**	500		1
Barium	**84**	**mg/kg**	**0.62**	**0.22**	**EPA-6010B**	10000		1
Beryllium	**0.49**	**mg/kg**	**0.62**	**0.059**	**EPA-6010B**	75	**J**	1
Cadmium	ND	mg/kg	0.62	0.065	EPA-6010B	100		1
Chromium	**15**	**mg/kg**	**0.62**	**0.062**	**EPA-6010B**	2500		1
Cobalt	**3.5**	**mg/kg**	**3.1**	**0.12**	**EPA-6010B**	8000		1
Copper	**4.1**	**mg/kg**	**1.2**	**0.062**	**EPA-6010B**	2500		1
Lead	**7.8**	**mg/kg**	**3.1**	**0.51**	**EPA-6010B**	1000		1
Mercury	ND	mg/kg	0.20	0.020	EPA-7471A	20		2
Molybdenum	ND	mg/kg	3.1	0.062	EPA-6010B	3500		1
Nickel	**6.1**	**mg/kg**	**0.62**	**0.19**	**EPA-6010B**	2000		1
Selenium	ND	mg/kg	1.2	1.2	EPA-6010B	100		1
Silver	ND	mg/kg	0.62	0.084	EPA-6010B	500		1
Thallium	ND	mg/kg	6.2	0.80	EPA-6010B	700		1
Vanadium	**22**	**mg/kg**	**0.62**	**0.14**	**EPA-6010B**	2400		1
Zinc	**20**	**mg/kg**	**3.1**	**0.11**	**EPA-6010B**	5000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/17/23 07:40	03/20/23 17:26	DVS	PE-OP4	0.980	B162102	EPA 3050B
2	EPA-7471A	03/21/23 14:15	03/22/23 11:32	TMT	CETAC3	0.962	B162367	EPA 7471A

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 2305048-41 | **Client Sample Name:** IMK808, WTL-1-0.5', 3/8/2023 10:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Acenaphthene	ND	mg/kg	0.0044	0.0019	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	mg/kg	0.0044	0.0014	EPA-8270C-SIM	ND		1
Anthracene	ND	mg/kg	0.0044	0.0012	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	**0.060**	**mg/kg**	**0.0044**	**0.0014**	**EPA-8270C-SIM**	ND		1
Benzo[b]fluoranthene	**0.10**	**mg/kg**	**0.0044**	**0.0012**	**EPA-8270C-SIM**	ND		1
Benzo[k]fluoranthene	ND	mg/kg	0.0044	0.0016	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	**0.091**	**mg/kg**	**0.0044**	**0.0012**	**EPA-8270C-SIM**	ND		1
Benzo[g,h,i]perylene	**0.082**	**mg/kg**	**0.0044**	**0.0011**	**EPA-8270C-SIM**	ND		1
Chrysene	**0.061**	**mg/kg**	**0.0044**	**0.0016**	**EPA-8270C-SIM**	ND		1
Dibenzo[a,h]anthracene	**0.075**	**mg/kg**	**0.0044**	**0.00071**	**EPA-8270C-SIM**	ND		1
Fluoranthene	**0.058**	**mg/kg**	**0.0044**	**0.0011**	**EPA-8270C-SIM**	ND		1
Fluorene	ND	mg/kg	0.0044	0.0014	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	**0.076**	**mg/kg**	**0.0044**	**0.00070**	**EPA-8270C-SIM**	ND		1
Naphthalene	ND	mg/kg	0.0044	0.0013	EPA-8270C-SIM	ND		1
Phenanthrene	ND	mg/kg	0.0044	0.0013	EPA-8270C-SIM	ND		1
Pyrene	**0.056**	**mg/kg**	**0.0044**	**0.0018**	**EPA-8270C-SIM**	ND		1
Nitrobenzene-d5 (Surrogate)	40.7	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	20.7	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1
p-Terphenyl-d14 (Surrogate)	11.4	%	30 - 130 (LCL - UCL)		EPA-8270C-SIM		S09	1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C-SIM	03/15/23 19:40	03/22/23 15:33	OLH	MS-B7	1.014	B162013	EPA 3550B

DCN = Data Continuation Number

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Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Chemical Analysis

BCL Sample ID: 2305048-41 | **Client Sample Name:** IMK808, WTL-1-0.5', 3/8/2023 10:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Moisture	**32.4 (AR)**	**%**	**0.07**	**0.07**	**Calc**	ND		1
Solids	**67.6 (AR)**	**%**	**0.07**	**0.07**	**SM-2540G**			2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	Calc	03/13/23 08:26	03/22/23 09:32	AMM	Calc	1	B161717	Calc
2	SM-2540G	03/21/23 10:00	03/22/23 07:00	DRC	MANUAL	1	B162362	SM 2540G

DCN = Data Continuation Number

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ENVIRONMENTAL SCIENCES

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

BCL Sample ID: 2305048-41 | **Client Sample Name:** IMK808, WTL-1-0.5', 3/8/2023 10:40:00AM, Kaempf/Paulus

Constituent	Dry Basis Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	DCN
Antimony	0.78	mg/kg	7.4	0.49	EPA-6010B	500	J	1
Arsenic	**2.8**	**mg/kg**	**1.5**	**0.59**	**EPA-6010B**	500		1
Barium	**70**	**mg/kg**	**0.74**	**0.27**	**EPA-6010B**	10000		1
Beryllium	**0.34**	**mg/kg**	**0.74**	**0.070**	**EPA-6010B**	75	**J**	1
Cadmium	0.082	mg/kg	0.74	0.077	EPA-6010B	100	J	1
Chromium	**13**	**mg/kg**	**0.74**	**0.074**	**EPA-6010B**	2500		1
Cobalt	**2.0**	**mg/kg**	**3.7**	**0.15**	**EPA-6010B**	8000	**J**	1
Copper	**4.5**	**mg/kg**	**1.5**	**0.074**	**EPA-6010B**	2500		1
Lead	**51**	**mg/kg**	**3.7**	**0.61**	**EPA-6010B**	1000		1
Mercury	**0.084**	**mg/kg**	**0.24**	**0.024**	**EPA-7471A**	20	**J**	2
Molybdenum	0.093	mg/kg	3.7	0.074	EPA-6010B	3500	J	1
Nickel	**4.8**	**mg/kg**	**0.74**	**0.22**	**EPA-6010B**	2000		1
Selenium	ND	mg/kg	1.5	1.5	EPA-6010B	100		1
Silver	ND	mg/kg	0.74	0.099	EPA-6010B	500		1
Thallium	ND	mg/kg	7.4	0.95	EPA-6010B	700		1
Vanadium	**16**	**mg/kg**	**0.74**	**0.16**	**EPA-6010B**	2400		1
Zinc	**28**	**mg/kg**	**3.7**	**0.13**	**EPA-6010B**	5000		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	03/17/23 07:40	03/20/23 17:27	DVS	PE-OP4	0.962	B162102	EPA 3050B
2	EPA-7471A	03/14/23 11:15	03/14/23 14:30	TMT	CETAC3	0.962	B161857	EPA 7471A

DCN = Data Continuation Number

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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B162013							
Acenaphthene	B162013-BLK1	ND	mg/kg	0.0030	0.0013		1
Acenaphthylene	B162013-BLK1	ND	mg/kg	0.0030	0.00092		1
Anthracene	B162013-BLK1	ND	mg/kg	0.0030	0.00081		1
Benzo[a]anthracene	B162013-BLK1	ND	mg/kg	0.0030	0.00096		1
Benzo[b]fluoranthene	B162013-BLK1	ND	mg/kg	0.0030	0.00079		1
Benzo[k]fluoranthene	B162013-BLK1	ND	mg/kg	0.0030	0.0011		1
Benzo[a]pyrene	B162013-BLK1	ND	mg/kg	0.0030	0.00078		1
Benzo[g,h,i]perylene	B162013-BLK1	ND	mg/kg	0.0030	0.00072		1
Chrysene	B162013-BLK1	ND	mg/kg	0.0030	0.0011		1
Dibenzo[a,h]anthracene	B162013-BLK1	ND	mg/kg	0.0030	0.00048		1
Fluoranthene	B162013-BLK1	ND	mg/kg	0.0030	0.00075		1
Fluorene	B162013-BLK1	ND	mg/kg	0.0030	0.00097		1
Indeno[1,2,3-cd]pyrene	B162013-BLK1	ND	mg/kg	0.0030	0.00047		1
Naphthalene	B162013-BLK1	ND	mg/kg	0.0030	0.00090		1
Phenanthrene	B162013-BLK1	ND	mg/kg	0.0030	0.00086		1
Pyrene	B162013-BLK1	ND	mg/kg	0.0030	0.0012		1
Nitrobenzene-d5 (Surrogate)	**B162013-BLK1**	**87.5**	%	**30 - 130 (LCL - UCL)**			**1**
2-Fluorobiphenyl (Surrogate)	**B162013-BLK1**	**73.7**	%	**40 - 130 (LCL - UCL)**			**1**
p-Terphenyl-d14 (Surrogate)	**B162013-BLK1**	**62.2**	%	**30 - 130 (LCL - UCL)**			**1**

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162013-BLK1	PB	EPA-8270C-SIM	03/15/23	03/16/23 10:52	OLH	MS-B7	1.003

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B162013											
Acenaphthene	B162013-BS1	LCS	0.024513	0.033557	mg/kg	73.0		60 - 130			1
Acenaphthylene	B162013-BS1	LCS	0.025388	0.033557	mg/kg	75.7		60 - 130			1
Anthracene	B162013-BS1	LCS	0.025308	0.033557	mg/kg	75.4		60 - 130			1
Benzo[a]anthracene	B162013-BS1	LCS	0.026252	0.033557	mg/kg	78.2		60 - 130			1
Benzo[b]fluoranthene	B162013-BS1	LCS	0.025665	0.033557	mg/kg	76.5		50 - 130			1
Benzo[k]fluoranthene	B162013-BS1	LCS	0.026913	0.033557	mg/kg	80.2		60 - 130			1
Benzo[a]pyrene	B162013-BS1	LCS	0.023093	0.033557	mg/kg	68.8		60 - 130			1
Benzo[g,h,i]perylene	B162013-BS1	LCS	0.029968	0.033557	mg/kg	89.3		50 - 130			1
Chrysene	B162013-BS1	LCS	0.023294	0.033557	mg/kg	69.4		50 - 130			1
Dibenzo[a,h]anthracene	B162013-BS1	LCS	0.028359	0.033557	mg/kg	84.5		50 - 130			1
Fluoranthene	B162013-BS1	LCS	0.027815	0.033557	mg/kg	82.9		60 - 130			1
Fluorene	B162013-BS1	LCS	0.023973	0.033557	mg/kg	71.4		50 - 130			1
Indeno[1,2,3-cd]pyrene	B162013-BS1	LCS	0.030058	0.033557	mg/kg	89.6		50 - 130			1
Naphthalene	B162013-BS1	LCS	0.023959	0.033557	mg/kg	71.4		50 - 130			1
Phenanthrene	B162013-BS1	LCS	0.023784	0.033557	mg/kg	70.9		50 - 130			1
Pyrene	B162013-BS1	LCS	0.024953	0.033557	mg/kg	74.4		50 - 130			1
Nitrobenzene-d5 (Surrogate)	B162013-BS1	LCS	0.11566	0.13423	mg/kg	86.2		30 - 130			1
2-Fluorobiphenyl (Surrogate)	B162013-BS1	LCS	0.093754	0.13423	mg/kg	69.8		40 - 130			1
p-Terphenyl-d14 (Surrogate)	B162013-BS1	LCS	0.077437	0.13423	mg/kg	57.7		30 - 130			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162013-BS1	LCS	EPA-8270C-SIM	03/15/23	03/16/23 11:15	OLH	MS-B7	1.007

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Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B162013	Used client sample: Y - Description: Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2', 03/08/2023 10:50											
Acenaphthene	MS	**2305048-20**	**ND**	**0.0090742**	**0.033113**	**mg/kg**		**27.4**		**50 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.015755**	**0.033784**	**mg/kg**	**53.8**	**46.6**	**30**	**50 - 130**	**Q02,Q03**	2
Acenaphthylene	MS	**2305048-20**	**ND**	**0.0095007**	**0.033113**	**mg/kg**		**28.7**		**50 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.016146**	**0.033784**	**mg/kg**	**51.8**	**47.8**	**30**	**50 - 130**	**Q02,Q03**	2
Anthracene	MS	**2305048-20**	**ND**	**0.0092570**	**0.033113**	**mg/kg**		**28.0**		**50 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.016467**	**0.033784**	**mg/kg**	**56.1**	**48.7**	**30**	**50 - 130**	**Q02,Q03**	2
Benzo[a]anthracene	MS	**2305048-20**	**ND**	**0.010104**	**0.033113**	**mg/kg**		**30.5**		**50 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.021384**	**0.033784**	**mg/kg**	**71.6**	**63.3**	**30**	**50 - 130**	**Q02**	2
Benzo[b]fluoranthene	MS	**2305048-20**	**ND**	**0.0093149**	**0.033113**	**mg/kg**		**28.1**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.025239**	**0.033784**	**mg/kg**	**92.2**	**74.7**	**30**	**40 - 130**	**Q02**	2
Benzo[k]fluoranthene	MS	**2305048-20**	**ND**	**0.0077401**	**0.033113**	**mg/kg**		**23.4**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.017030**	**0.033784**	**mg/kg**	**75.0**	**50.4**	**30**	**40 - 130**	**Q02**	2
Benzo[a]pyrene	MS	**2305048-20**	**ND**	**0.010118**	**0.033113**	**mg/kg**		**30.6**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.023057**	**0.033784**	**mg/kg**	**78.0**	**68.2**	**30**	**40 - 130**	**Q02**	2
Benzo[g,h,i]perylene	MS	**2305048-20**	**ND**	**0.0084930**	**0.033113**	**mg/kg**		**25.6**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.024696**	**0.033784**	**mg/kg**	**97.6**	**73.1**	**30**	**40 - 130**	**Q02**	2
Chrysene	MS	**2305048-20**	**ND**	**0.0089758**	**0.033113**	**mg/kg**		**27.1**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.018747**	**0.033784**	**mg/kg**	**70.5**	**55.5**	**30**	**40 - 130**	**Q02**	2
Dibenzo[a,h]anthracene	MS	**2305048-20**	**ND**	**0.010033**	**0.033113**	**mg/kg**		**30.3**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.010055**	**0.033784**	**mg/kg**	**0.2**	**29.8**	**30**	**40 - 130**	**Q03**	2
Fluoranthene	MS	**2305048-20**	**ND**	**0.011850**	**0.033113**	**mg/kg**		**35.8**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.021788**	**0.033784**	**mg/kg**	**59.1**	**64.5**	**30**	**40 - 130**	**Q02**	2
Fluorene	MS	**2305048-20**	**ND**	**0.0094255**	**0.033113**	**mg/kg**		**28.5**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.015647**	**0.033784**	**mg/kg**	**49.6**	**46.3**	**30**	**40 - 130**	**Q02**	2
Indeno[1,2,3-cd]pyrene	MS	**2305048-20**	**ND**	**0.0090566**	**0.033113**	**mg/kg**		**27.4**		**30 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.023349**	**0.033784**	**mg/kg**	**88.2**	**69.1**	**30**	**30 - 130**	**Q02**	2
Naphthalene	MS	**2305048-20**	**ND**	**0.0090921**	**0.033113**	**mg/kg**		**27.5**		**50 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.014217**	**0.033784**	**mg/kg**	**44.0**	**42.1**	**30**	**50 - 130**	**Q02,Q03**	2
Phenanthrene	MS	**2305048-20**	**ND**	**0.0093815**	**0.033113**	**mg/kg**		**28.3**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.016101**	**0.033784**	**mg/kg**	**52.7**	**47.7**	**30**	**40 - 130**	**Q02**	2
Pyrene	MS	**2305048-20**	**ND**	**0.0098765**	**0.033113**	**mg/kg**		**29.8**		**40 - 130**	**Q03**	1
	MSD	**2305048-20**	**ND**	**0.019286**	**0.033784**	**mg/kg**	**64.5**	**57.1**	**30**	**40 - 130**	**Q02**	2
Nitrobenzene-d5 (Surrogate)	MS	2305048-20	ND	0.063011	0.13245	mg/kg		47.6		30 - 130		1
	MSD	2305048-20	ND	0.078826	0.13514	mg/kg	22.3	58.3		30 - 130		2

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Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B162013	Used client sample: Y - Description: Composite of LSP-5-2', LSP-6-2', LSP-7-2', LSP-8-2', 03/08/2023 10:50											
2-Fluorobiphenyl (Surrogate)	MS	**2305048-20**	**ND**	**0.033565**	**0.13245**	**mg/kg**		**25.3**		**40 - 130**	**S09**	1
	MSD	**2305048-20**	**ND**	**0.057198**	**0.13514**	**mg/kg**	**52.1**	**42.3**		**40 - 130**		2
p-Terphenyl-d14 (Surrogate)	MS	**2305048-20**	**ND**	**0.024730**	**0.13245**	**mg/kg**		**18.7**		**30 - 130**	**S09**	1
	MSD	**2305048-20**	**ND**	**0.042307**	**0.13514**	**mg/kg**	**52.4**	**31.3**		**30 - 130**		2

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162013-MS1	MS	EPA-8270C-SIM	03/15/23	03/16/23 11:37	OLH	MS-B7	0.993
2	B162013-MSD1	MSD	EPA-8270C-SIM	03/15/23	03/16/23 12:00	OLH	MS-B7	1.014

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Chemical Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161717							
Moisture	B161717-BLK1	ND	%	0.05	0.05		1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161717-BLK1	PB	Calc	03/13/23	03/22/23 09:32	AMM	Calc	1

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Chemical Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B162362	Used client sample: N											
Solids	DUP	2304933-10	30.540	30.260		%	0.9		20			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162362-DUP1	DUP	SM-2540G	03/21/23	03/22/23 07:00	DRC	MANUAL	1

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WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B162682							
Lead	B162682-BLK1	ND	mg/L	0.50	0.13		1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162682-BLK1	PB	EPA-6010B	03/26/23	03/27/23 11:05	JCC	PE-OP4	1

RRM, Inc.
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WET Test (STLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B162682											
Lead	B162682-BS1	LCS	18.604	20.000	mg/L	93.0		85 - 115			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162682-BS1	LCS	EPA-6010B	03/26/23	03/27/23 11:07	JCC	PE-OP4	1

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WET Test (STLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B162682	Used client sample: N											
Lead	DUP	2304057-01	6.4038	6.4028		mg/L	0.0		20			1
	MS	2304057-01	6.4038	25.238	20.408	mg/L		92.3		75 - 125		2
	MSD	2304057-01	6.4038	25.478	20.408	mg/L	0.9	93.5	20	75 - 125		3

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B162682-DUP1	DUP	EPA-6010B	03/26/23	03/27/23 11:10	JCC	PE-OP4	1
2	B162682-MS1	MS	EPA-6010B	03/26/23	03/27/23 11:13	JCC	PE-OP4	1.020
3	B162682-MSD1	MSD	EPA-6010B	03/26/23	03/27/23 11:15	JCC	PE-OP4	1.020

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TCLP Toxicity

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B164191							
Lead	B164191-BLK1	ND	mg/L	0.50	0.030		1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B164191-BLK1	PB	EPA-6010B	04/14/23	04/14/23 20:29	JCC	PE-OP3	1

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TCLP Toxicity

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B164191											
Lead	B164191-BS1	LCS	20.300	20.000	mg/L	102		85 - 115			1

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B164191-BS1	LCS	EPA-6010B	04/14/23	04/14/23 20:31	JCC	PE-OP3	1

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ENVIRONMENTAL SCIENCES

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TCLP Toxicity

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B164191	Used client sample: Y - Description: Composite of LSP-13-0.5', LSP-14-0.5', LSP-15-0.5', LSP-16-0, 03/08/2023 11:53											
Lead	DUP	**2305048-35**	**0.83131**	**2.5089**		**mg/L**	**100**		**20**		**Q01**	1
	MS	**2305048-35**	**0.83131**	**21.011**	**20.000**	**mg/L**		**101**		**75 - 125**		2
	MSD	**2305048-35**	**0.83131**	**21.145**	**20.000**	**mg/L**	**0.6**	**102**	**20**	**75 - 125**		3

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B164191-DUP1	DUP	EPA-6010B	04/14/23	04/14/23 20:34	JCC	PE-OP3	1
2	B164191-MS1	MS	EPA-6010B	04/14/23	04/14/23 20:37	JCC	PE-OP3	1
3	B164191-MSD1	MSD	EPA-6010B	04/14/23	04/14/23 20:39	JCC	PE-OP3	1

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Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B161857							
Mercury	B161857-BLK1	ND	mg/kg	0.16	0.016		1
QC Batch ID: B161923							
Antimony	B161923-BLK2	ND	mg/kg	5.0	0.33		2
Arsenic	B161923-BLK1	ND	mg/kg	1.0	0.40		3
Barium	B161923-BLK1	ND	mg/kg	0.50	0.18		3
Beryllium	B161923-BLK1	ND	mg/kg	0.50	0.047		3
Cadmium	B161923-BLK1	ND	mg/kg	0.50	0.052		3
Chromium	**B161923-BLK1**	**0.41544**	**mg/kg**	**0.50**	**0.050**	**J**	**3**
Cobalt	B161923-BLK1	ND	mg/kg	2.5	0.098		3
Copper	**B161923-BLK1**	**0.15467**	**mg/kg**	**1.0**	**0.050**	**J**	**3**
Lead	B161923-BLK1	ND	mg/kg	2.5	0.41		3
Molybdenum	B161923-BLK1	ND	mg/kg	2.5	0.050		3
Nickel	**B161923-BLK1**	**0.41223**	**mg/kg**	**0.50**	**0.15**	**J**	**3**
Selenium	B161923-BLK1	ND	mg/kg	1.0	0.98		3
Silver	B161923-BLK1	ND	mg/kg	0.50	0.067		3
Thallium	B161923-BLK1	ND	mg/kg	5.0	0.64		3
Vanadium	B161923-BLK1	ND	mg/kg	0.50	0.11		3
Zinc	B161923-BLK1	ND	mg/kg	2.5	0.087		3
QC Batch ID: B162102							
Antimony	B162102-BLK1	ND	mg/kg	5.0	0.33		4
Arsenic	B162102-BLK1	ND	mg/kg	1.0	0.40		4
Barium	B162102-BLK1	ND	mg/kg	0.50	0.18		4
Beryllium	B162102-BLK1	ND	mg/kg	0.50	0.047		4
Cadmium	B162102-BLK1	ND	mg/kg	0.50	0.052		4
Chromium	**B162102-BLK1**	**0.16876**	**mg/kg**	**0.50**	**0.050**	**J**	**4**
Cobalt	B162102-BLK1	ND	mg/kg	2.5	0.098		4
Copper	B162102-BLK1	ND	mg/kg	1.0	0.050		4
Lead	B162102-BLK1	ND	mg/kg	2.5	0.41		4
Molybdenum	**B162102-BLK1**	**0.060974**	**mg/kg**	**2.5**	**0.050**	**J**	**4**
Nickel	B162102-BLK1	ND	mg/kg	0.50	0.15		4
Selenium	B162102-BLK1	ND	mg/kg	1.0	0.98		4
Silver	B162102-BLK1	ND	mg/kg	0.50	0.067		4
Thallium	B162102-BLK1	ND	mg/kg	5.0	0.64		4

Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	Run #
QC Batch ID: B162102							
Vanadium	B162102-BLK1	ND	mg/kg	0.50	0.11		4
Zinc	**B162102-BLK1**	**0.17360**	**mg/kg**	**2.5**	**0.087**	**J**	**4**
QC Batch ID: B162367							
Mercury	**B162367-BLK1**	**0.033760**	**mg/kg**	**0.16**	**0.016**	**J**	**5**

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161857-BLK1	PB	EPA-7471A	03/14/23	03/14/23 13:41	TMT	CETAC3	1
2	B161923-BLK2	PB	EPA-6010B	03/15/23	03/21/23 17:39	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
3	B161923-BLK1	PB	EPA-6010B	03/15/23	03/17/23 19:45	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
4	B162102-BLK1	PB	EPA-6010B	03/17/23	03/20/23 17:08	DVS	PE-OP4	1
5	B162367-BLK1	PB	EPA-7471A	03/21/23	03/22/23 10:46	TMT	CETAC3	1

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals	Run #
QC Batch ID: B161857											
Mercury	B161857-BS1	LCS	0.83680	0.80000	mg/kg	105		80 - 120			1
	B161857-BSD1	LCSD	0.84320	0.80000	mg/kg	105	0.8	80 - 120	20		2
QC Batch ID: B161923											
Antimony	B161923-BS2	LCS	105.78	100.00	mg/kg	106		75 - 125			3
Arsenic	B161923-BS1	LCS	20.462	20.000	mg/kg	102		75 - 125			4
Barium	B161923-BS1	LCS	102.97	100.00	mg/kg	103		75 - 125			4
Beryllium	B161923-BS1	LCS	10.232	10.000	mg/kg	102		75 - 125			4
Cadmium	B161923-BS1	LCS	9.7056	10.000	mg/kg	97.1		75 - 125			4
Chromium	B161923-BS1	LCS	110.79	100.00	mg/kg	111		75 - 125			4
Cobalt	B161923-BS1	LCS	113.70	100.00	mg/kg	114		75 - 125			4
Copper	B161923-BS1	LCS	103.28	100.00	mg/kg	103		75 - 125			4
Lead	B161923-BS1	LCS	103.50	100.00	mg/kg	104		75 - 125			4
Molybdenum	B161923-BS1	LCS	106.22	100.00	mg/kg	106		75 - 125			4
Nickel	B161923-BS1	LCS	114.15	100.00	mg/kg	114		75 - 125			4
Selenium	B161923-BS1	LCS	19.600	20.000	mg/kg	98.0		75 - 125			4
Silver	B161923-BS1	LCS	10.166	10.000	mg/kg	102		75 - 125			4
Thallium	B161923-BS1	LCS	108.89	100.00	mg/kg	109		75 - 125			4
Vanadium	B161923-BS1	LCS	110.36	100.00	mg/kg	110		75 - 125			4
Zinc	B161923-BS1	LCS	107.69	100.00	mg/kg	108		75 - 125			4
QC Batch ID: B162102											
Antimony	B162102-BS1	LCS	96.210	100.00	mg/kg	96.2		75 - 125			5
Arsenic	B162102-BS1	LCS	19.846	20.000	mg/kg	99.2		75 - 125			5
Barium	B162102-BS1	LCS	102.91	100.00	mg/kg	103		75 - 125			5
Beryllium	B162102-BS1	LCS	10.114	10.000	mg/kg	101		75 - 125			5
Cadmium	B162102-BS1	LCS	9.4690	10.000	mg/kg	94.7		75 - 125			5
Chromium	B162102-BS1	LCS	109.17	100.00	mg/kg	109		75 - 125			5
Cobalt	B162102-BS1	LCS	114.92	100.00	mg/kg	115		75 - 125			5
Copper	B162102-BS1	LCS	101.56	100.00	mg/kg	102		75 - 125			5
Lead	B162102-BS1	LCS	102.74	100.00	mg/kg	103		75 - 125			5
Molybdenum	B162102-BS1	LCS	105.90	100.00	mg/kg	106		75 - 125			5
Nickel	B162102-BS1	LCS	113.60	100.00	mg/kg	114		75 - 125			5
Selenium	B162102-BS1	LCS	19.445	20.000	mg/kg	97.2		75 - 125			5
Silver	B162102-BS1	LCS	10.012	10.000	mg/kg	100		75 - 125			5

Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

								Control Limits			
Constituent	**QC Sample ID**	**Type**	**Result**	**Spike Level**	**Units**	**Percent Recovery**	**RPD**	**Percent Recovery**	**RPD**	**Lab Quals**	**Run #**
QC Batch ID: B162102											
Thallium	B162102-BS1	LCS	111.45	100.00	mg/kg	111		75 - 125			5
Vanadium	B162102-BS1	LCS	111.85	100.00	mg/kg	112		75 - 125			5
Zinc	B162102-BS1	LCS	105.22	100.00	mg/kg	105		75 - 125			5
QC Batch ID: B162367											
Mercury	B162367-BS1	LCS	0.73760	0.80000	mg/kg	92.2		80 - 120			6
	B162367-BSD1	LCSD	0.72160	0.80000	mg/kg	90.2	2.2	80 - 120	20		7

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161857-BS1	LCS	EPA-7471A	03/14/23	03/14/23 14:04	TMT	CETAC3	1
2	B161857-BSD1	LCSD	EPA-7471A	03/14/23	03/14/23 15:21	TMT	CETAC3	1
3	B161923-BS2	LCS	EPA-6010B	03/15/23	03/21/23 17:40	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
4	B161923-BS1	LCS	EPA-6010B	03/15/23	03/17/23 19:47	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
5	B162102-BS1	LCS	EPA-6010B	03/17/23	03/20/23 17:10	DVS	PE-OP4	1
6	B162367-BS1	LCS	EPA-7471A	03/21/23	03/22/23 10:50	TMT	CETAC3	1
7	B162367-BSD1	LCSD	EPA-7471A	03/21/23	03/22/23 11:57	TMT	CETAC3	1

RRM, Inc.
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Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161857	Used client sample: N											
Mercury	DUP	**2304386-01**	**0.017031**	**0.052969**		**mg/kg**	**103**		**20**		**J,A02**	1
	MS	**2304386-01**	**0.017031**	**0.84844**	**0.78125**	**mg/kg**		**106**		**80 - 120**		2
	MSD	**2304386-01**	**0.017031**	**0.82656**	**0.78125**	**mg/kg**	**2.6**	**104**	**20**	**80 - 120**		3
QC Batch ID: B161923	Used client sample: N											
Antimony	DUP	2304081-01	ND	ND		mg/kg			20			4
	MS	2304081-01	ND	49.326	100.00	mg/kg		49.3		16 - 119		5
	MSD	2304081-01	ND	48.463	100.00	mg/kg	1.8	48.5	20	16 - 119		6
Arsenic	DUP	**2304081-01**	**2.6167**	**2.0733**		**mg/kg**	**23.2**		**20**		**Q01**	7
	MS	**2304081-01**	**2.6167**	**22.597**	**20.000**	**mg/kg**		**99.9**		**75 - 125**		8
	MSD	**2304081-01**	**2.6167**	**22.476**	**20.000**	**mg/kg**	**0.5**	**99.3**	**20**	**75 - 125**		9
Barium	DUP	2304081-01	33.694	39.465		mg/kg	15.8		20			7
	MS	2304081-01	33.694	140.14	100.00	mg/kg		106		75 - 125		8
	MSD	2304081-01	33.694	135.43	100.00	mg/kg	3.4	102	20	75 - 125		9
Beryllium	DUP	2304081-01	0.093881	0.096401		mg/kg	2.6		20		J	7
	MS	2304081-01	0.093881	9.9748	10.000	mg/kg		98.8		75 - 125		8
	MSD	2304081-01	0.093881	9.9970	10.000	mg/kg	0.2	99.0	20	75 - 125		9
Cadmium	DUP	2304081-01	ND	0.53732		mg/kg			20			7
	MS	2304081-01	ND	9.5808	10.000	mg/kg		95.8		75 - 125		8
	MSD	2304081-01	ND	9.6431	10.000	mg/kg	0.6	96.4	20	75 - 125		9
Chromium	DUP	2304081-01	4.8148	4.8679		mg/kg	1.1		20			7
	MS	2304081-01	4.8148	109.70	100.00	mg/kg		105		75 - 125		8
	MSD	2304081-01	4.8148	108.42	100.00	mg/kg	1.2	104	20	75 - 125		9
Cobalt	DUP	2304081-01	2.2701	2.4215		mg/kg	6.5		20		J	7
	MS	2304081-01	2.2701	106.82	100.00	mg/kg		105		75 - 125		8
	MSD	2304081-01	2.2701	106.96	100.00	mg/kg	0.1	105	20	75 - 125		9
Copper	DUP	**2304081-01**	**5.8641**	**8.8070**		**mg/kg**	**40.1**		**20**		**Q01**	7
	MS	**2304081-01**	**5.8641**	**112.98**	**100.00**	**mg/kg**		**107**		**75 - 125**		8
	MSD	**2304081-01**	**5.8641**	**110.71**	**100.00**	**mg/kg**	**2.0**	**105**	**20**	**75 - 125**		9
Lead	DUP	**2304081-01**	**9.7886**	**14.329**		**mg/kg**	**37.7**		**20**		**Q01**	7
	MS	**2304081-01**	**9.7886**	**108.34**	**100.00**	**mg/kg**		**98.5**		**75 - 125**		8
	MSD	**2304081-01**	**9.7886**	**110.13**	**100.00**	**mg/kg**	**1.6**	**100**	**20**	**75 - 125**		9
Molybdenum	DUP	2304081-01	ND	ND		mg/kg			20			7
	MS	2304081-01	ND	98.395	100.00	mg/kg		98.4		75 - 125		8
	MSD	2304081-01	ND	99.932	100.00	mg/kg	1.6	99.9	20	75 - 125		9
Nickel	DUP	2304081-01	3.2043	3.7630		mg/kg	16.0		20			7
	MS	2304081-01	3.2043	109.81	100.00	mg/kg		107		75 - 125		8
	MSD	2304081-01	3.2043	110.06	100.00	mg/kg	0.2	107	20	75 - 125		9

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RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B161923	Used client sample: N											
Selenium	DUP	2304081-01	ND	ND		mg/kg			20			7
	MS	2304081-01	ND	18.971	20.000	mg/kg		94.9		75 - 125		8
	MSD	2304081-01	ND	18.742	20.000	mg/kg	1.2	93.7	20	75 - 125		9
Silver	DUP	2304081-01	ND	ND		mg/kg			20			7
	MS	2304081-01	ND	9.4503	10.000	mg/kg		94.5		75 - 125		8
	MSD	2304081-01	ND	9.5761	10.000	mg/kg	1.3	95.8	20	75 - 125		9
Thallium	DUP	2304081-01	ND	ND		mg/kg			20			7
	MS	2304081-01	ND	107.53	100.00	mg/kg		108		75 - 125		8
	MSD	2304081-01	ND	107.88	100.00	mg/kg	0.3	108	20	75 - 125		9
Vanadium	DUP	2304081-01	19.485	19.560		mg/kg	0.4		20			7
	MS	2304081-01	19.485	120.55	100.00	mg/kg		101		75 - 125		8
	MSD	2304081-01	19.485	125.01	100.00	mg/kg	3.6	106	20	75 - 125		9
Zinc	DUP	**2304081-01**	**28.629**	**61.266**		**mg/kg**	**72.6**		**20**		**Q01**	7
	MS	**2304081-01**	**28.629**	**133.75**	**100.00**	**mg/kg**		**105**		**75 - 125**		8
	MSD	**2304081-01**	**28.629**	**137.23**	**100.00**	**mg/kg**	**2.6**	**109**	**20**	**75 - 125**		9
QC Batch ID: B162102	Used client sample: N											
Antimony	DUP	**2305195-02**	**0.60814**	**0.40447**		**mg/kg**	**40.2**		**20**		**J,A02**	10
	MS	**2305195-02**	**0.60814**	**24.493**	**100.00**	**mg/kg**		**23.9**		**16 - 119**		11
	MSD	**2305195-02**	**0.60814**	**27.161**	**100.00**	**mg/kg**	**10.3**	**26.6**	**20**	**16 - 119**		12
Arsenic	DUP	2305195-02	5.1264	4.4441		mg/kg	14.3		20			10
	MS	2305195-02	5.1264	22.461	20.000	mg/kg		86.7		75 - 125		11
	MSD	2305195-02	5.1264	22.737	20.000	mg/kg	1.2	88.1	20	75 - 125		12
Barium	DUP	2305195-02	262.47	315.93		mg/kg	18.5		20			10
	MS	2305195-02	262.47	346.21	100.00	mg/kg		83.7		75 - 125		11
	MSD	2305195-02	262.47	355.81	100.00	mg/kg	2.7	93.3	20	75 - 125		12
Beryllium	DUP	2305195-02	0.24099	0.26867		mg/kg	10.9		20		J	10
	MS	2305195-02	0.24099	8.8747	10.000	mg/kg		86.3		75 - 125		11
	MSD	2305195-02	0.24099	9.0285	10.000	mg/kg	1.7	87.9	20	75 - 125		12
Cadmium	DUP	2305195-02	0.56537	0.61405		mg/kg	8.3		20			10
	MS	2305195-02	0.56537	9.2840	10.000	mg/kg		87.2		75 - 125		11
	MSD	2305195-02	0.56537	9.4520	10.000	mg/kg	1.8	88.9	20	75 - 125		12
Chromium	DUP	2305195-02	23.563	22.505		mg/kg	4.6		20			10
	MS	2305195-02	23.563	107.29	100.00	mg/kg		83.7		75 - 125		11
	MSD	2305195-02	23.563	113.20	100.00	mg/kg	5.4	89.6	20	75 - 125		12
Cobalt	DUP	2305195-02	5.5738	5.9027		mg/kg	5.7		20			10
	MS	2305195-02	5.5738	94.213	100.00	mg/kg		88.6		75 - 125		11
	MSD	2305195-02	5.5738	96.915	100.00	mg/kg	2.8	91.3	20	75 - 125		12

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Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals	R#
QC Batch ID: B162102	Used client sample: N											
Copper	DUP	**2305195-02**	**46.984**	**48.703**		**mg/kg**	**3.6**		**20**			10
	MS	**2305195-02**	**46.984**	**138.42**	**100.00**	**mg/kg**		**91.4**		**75 - 125**		11
	MSD	**2305195-02**	**46.984**	**196.15**	**100.00**	**mg/kg**	**34.5**	**149**	**20**	**75 - 125**	**Q03**	12
Lead	DUP	2305195-02	41.625	44.965		mg/kg	7.7		20			10
	MS	2305195-02	41.625	131.51	100.00	mg/kg		89.9		75 - 125		11
	MSD	2305195-02	41.625	133.49	100.00	mg/kg	1.5	91.9	20	75 - 125		12
Molybdenum	DUP	2305195-02	1.8114	1.7105		mg/kg	5.7		20		J	10
	MS	2305195-02	1.8114	90.821	100.00	mg/kg		89.0		75 - 125		11
	MSD	2305195-02	1.8114	88.454	100.00	mg/kg	2.6	86.6	20	75 - 125		12
Nickel	DUP	2305195-02	15.920	16.049		mg/kg	0.8		20			10
	MS	2305195-02	15.920	104.00	100.00	mg/kg		88.1		75 - 125		11
	MSD	2305195-02	15.920	107.26	100.00	mg/kg	3.1	91.3	20	75 - 125		12
Selenium	DUP	2305195-02	ND	ND		mg/kg			20			10
	MS	2305195-02	ND	15.362	20.000	mg/kg		76.8		75 - 125		11
	MSD	2305195-02	ND	15.769	20.000	mg/kg	2.6	78.8	20	75 - 125		12
Silver	DUP	2305195-02	0.16822	ND		mg/kg			20			10
	MS	2305195-02	0.16822	8.3694	10.000	mg/kg		82.0		75 - 125		11
	MSD	2305195-02	0.16822	8.5231	10.000	mg/kg	1.8	83.5	20	75 - 125		12
Thallium	DUP	2305195-02	ND	ND		mg/kg			20			10
	MS	2305195-02	ND	85.885	100.00	mg/kg		85.9		75 - 125		11
	MSD	2305195-02	ND	87.877	100.00	mg/kg	2.3	87.9	20	75 - 125		12
Vanadium	DUP	2305195-02	25.264	26.373		mg/kg	4.3		20			10
	MS	2305195-02	25.264	117.65	100.00	mg/kg		92.4		75 - 125		11
	MSD	2305195-02	25.264	118.30	100.00	mg/kg	0.5	93.0	20	75 - 125		12
Zinc	DUP	2305195-02	284.59	309.59		mg/kg	8.4		20			10
	MS	2305195-02	284.59	381.70	100.00	mg/kg		97.1		75 - 125		11
	MSD	2305195-02	284.59	399.57	100.00	mg/kg	4.6	115	20	75 - 125		12
QC Batch ID: B162367	Used client sample: N											
Mercury	DUP	2305527-01	ND	ND		mg/kg			20			13
	MS	2305527-01	ND	0.84921	0.79365	mg/kg		107		80 - 120		14
	MSD	2305527-01	ND	0.75714	0.79365	mg/kg	11.5	95.4	20	80 - 120		15

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
1	B161857-DUP1	DUP	EPA-7471A	03/14/23	03/14/23 13:47	TMT	CETAC3	0.977
2	B161857-MS1	MS	EPA-7471A	03/14/23	03/14/23 13:49	TMT	CETAC3	0.977
3	B161857-MSD1	MSD	EPA-7471A	03/14/23	03/14/23 13:56	TMT	CETAC3	0.977
4	B161923-DUP2	DUP	EPA-6010B	03/15/23	03/21/23 17:43	DVS	PE-OP4	1
5	B161923-MS2	MS	EPA-6010B	03/15/23	03/21/23 17:46	DVS	PE-OP4	1
6	B161923-MSD2	MSD	EPA-6010B	03/15/23	03/21/23 17:47	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
7	B161923-DUP1	DUP	EPA-6010B	03/15/23	03/17/23 19:50	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
8	B161923-MS1	MS	EPA-6010B	03/15/23	03/17/23 19:53	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
9	B161923-MSD1	MSD	EPA-6010B	03/15/23	03/17/23 19:54	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
10	B162102-DUP1	DUP	EPA-6010B	03/17/23	03/20/23 17:13	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Run #	QC Sample ID	QC Type	Method	Prep Date	Run Date Time	Analyst	Instrument	Dilution
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
11	B162102-MS1	MS	EPA-6010B	03/17/23	03/20/23 17:15	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
12	B162102-MSD1	MSD	EPA-6010B	03/17/23	03/20/23 17:17	DVS	PE-OP4	1
13	B162367-DUP1	DUP	EPA-7471A	03/21/23	03/22/23 10:55	TMT	CETAC3	0.992
14	B162367-MS1	MS	EPA-7471A	03/21/23	03/22/23 10:57	TMT	CETAC3	0.992
15	B162367-MSD1	MSD	EPA-7471A	03/21/23	03/22/23 10:59	TMT	CETAC3	0.992

RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, CA 95062

Reported: 04/18/2023 14:15
Project: Soil Samples - Dry weight
Project Number: IMK808
Project Manager: Matt Paulus

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A02	The difference between duplicate readings is less than the quantitation limit.
A10	Detection and quantitation limits were raised due to matrix interference.
Q01	Sample precision is not within the control limits.
Q02	Matrix spike precision is not within the control limits.
Q03	Matrix spike recovery(s) was(were) not within the control limits.
S09	The surrogate recovery for this compound was not within the control limits.