AECOM

Hazardous Materials Investigation Report

Monterey Peninsula Water Supply Project – Castroville Pipeline

July 31, 2018

Submitted to

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July 31, 2018

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Re: Hazardous Materials Investigation Report
Monterey Peninsula Water Supply Project
Castroville Pipeline

Mr. Monette:

AECOM is pleased to submit our Hazardous Materials Investigation Report for the Castroville Pipeline segment of the Monterey Peninsula Water Supply Project in Monterey County, California. This work was conducted for California American Water. The information presented in this report is based on data generated during our Hazardous Materials investigation effort. This work was conducted and the attached report was developed under the direction of the undersigned.

If you have any questions on this investigation summary report, please call Ms. Suzanne Nase at 510-874-3196 or Mr. Craig Smith at 510-874-3117.

Sincerely,
AECOM Technology Services, Inc,

Suzanne Nase, Geologist

Craig Smith, PE, Project Manager

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List of Acronyms

AECOM	AECOM Technical Services
ASTM	American Society for Testing and Materials International
bgs	below ground surface
CAW	California American Water
Caltrans	California Department of Transportation
CAM	California Assessment Manual
CCR	California Code of Regulations
CCSD	The Castroville Community Services District
CSIP	The Castroville Seawater Intrusion Project
ED/ER	Environmental Database/Document Review
Enthalpy	Enthalpy Analytical Laboratory
ESL	Environmental Screening Levels
HREC	Historical Recognized Environmental Condition
IDW	Investigation Derived Waste
MCEH	Monterey County Department of Environmental Health
MCL	Maximum Contaminant Level
mg/kg	milligram per kilogram
mg/L	milligram per liter
MPWRA	Monterey Peninsula Water Resources Agency
MPWSP	Monterey Peninsula Water Supply Project
OSHA	Occupational Safety and Health Administration
PeneCore	PeneCore Drilling
Pipeline	Castroville Pipeline
PPE	personal protective equipment
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROW	Right-of-way
RWQCB	San Francisco Bay Regional Water Quality Control Board
sg	silica gel clean up
Site	Castroville, Monterey County, CA
STLC	soluble threshold limit concentration
Subtronic	Subtronic Corporation
TAMC	Transportation Agency for Monterey County
TCLP	toxicity characteristic leaching procedure
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
TPH-mo	total petroleum hydrocarbons as motor oil
TTLC	total threshold limit concentration
USA	Underground Service Alert
EPA	U.S. Environmental Protection Agency
VOA	Volatile Organic Analysis vial

VOCs	volatile organic compounds
WET	Waste Extraction Test
WET-DI	Deionized Waste Extraction Test
µg/L	microgram per liter

Executive Summary

AECOM Technical Services (AECOM) performed a hazardous materials investigation, on behalf of California American Water (CAW), within the alignment of the Castroville Pipeline of the Monterey Peninsula Water Supply Project (MPWSP) in Monterey County, California (Site). Sampling activities occurred on February 21, 2018. The project area is shown on Figure 1.

Soil and groundwater samples for chemical analysis were collected from soil borings advanced within the Transportation Agency for Monterey County (TAMC) Right of Way (ROW) and focus on the pipeline alignment in the agricultural area north of the Salinas River. Sample locations are indicated with 'B' in the sample ID in Figures 2A-2F.

A total of 5 borings were advanced to 7 feet below ground surface (bgs). Soil samples were collected from the borings and groundwater samples were collected (where encountered) from 3 borings. Field activities occurred during the peak of the wet season. The chance of encountering groundwater during construction activities is expected to decrease during the dry season (summer/fall).

Analytical results were compared to their respective San Francisco Regional Water Quality Control Board (RWQCB) February 2016 Rev. 3 Environmental Screening Levels (ESL) values, when available.

Soil detections were compared to criteria in Table S-1: Direct Exposure Human Health Risk Levels, Commercial/Industrial Land use: Shallow Soil Exposure and Any Land Use/Any Depth Soil Exposure: Construction Worker. Groundwater analytical results were compared with their respective Gross Contamination Level ESLs from Table GW-4 of the RWQCB 2016 ESLs (Rev. 3) Workbook.

Soil and groundwater samples were analyzed for some or all of the following parameters: Title 22 metals, TPH-g, TPH-d, TPH-mo, fuel oxygenates, VOCs, organochlorine pesticides, and herbicides.

The laboratory analytical data for soil showed concentrations above the respective ESL for arsenic and nickel. None of these ESL exceedances were above the gross contamination level. All other sample detections were below their respective ESLs.

The laboratory analytical data for soil was compared to California hazardous waste standards and Resource Conservation and Recovery Act (RCRA) waste standards. None of the samples exceeded the criteria for either California hazardous waste or RCRA hazardous waste, indicating that the soil can be handled and used on-Site or disposed of as non-hazardous waste at a Class II landfill.

The laboratory analytical data for groundwater showed no detections above the gross contamination level set by RWQCB, when available. If any dewatering occurs throughout the project, the water may be used as dust control on Site or stored, treated and disposed of under the proper permit(s).

In terms of health and safety for CAW and CAW representatives working at the site, Level D personal protective equipment (PPE) should be worn by personnel when working with Site soils and groundwater. Any contractor working on site should develop their own Site specific Health and Safety plan based on the data herein. A Site dust control plan should be in place during construction activities. A dust mask is recommended to be worn while on site during the dry season and/or when a Site dust control plan is not in place.

1 Introduction

1.1 Project Introduction

AECOM Technical Services (AECOM) conducted a hazardous materials investigation, on behalf of California American Water (CAW), within the Castroville Pipeline alignment of the Monterey Peninsula Water Supply Project (MPWSP) in Monterey County, California (Site) (Figure 1). AECOM was authorized by CAW to implement a soil and groundwater investigation that focused on the contaminant issues identified in the environmental database/document review (ED/ER) conducted by AECOM in July 2017. Sampling activities occurred on February 21, 2018.

1.2 Project Description

The Castroville Pipeline is a proposed 8- and12-inch diameter, 3.6-mile potable water pipeline designed by AECOM that will deliver desalinated water to two locations:

1. The Castroville Community Services District (CCSD) well site #3, at the corner of Del Monte Avenue and Highway 183/Merritt Street in Castroville; and
2. In the future, it may possibly connect to the Castroville Seawater Intrusion Project (CSIP) recycled water pipeline managed by the Monterey Peninsula Water Resources Agency (MPWRA).

The Castroville Pipeline alignment begins at the intersection of Lapis Road and Del Monte Boulevard where it is connected to the Transfer Pipeline. It travels primarily within the Transportation Agency for Monterey County (TAMC) railroad right-of-way (ROW) north to the CCSD well site #3 as shown in Figure 1. By well site #3 the pipeline ties into the CCSD water distribution system. The pipeline alignment crosses over the Salinas River on the Monte Road Bridge and also crosses a California Department of Transportation (CalTrans) ROW at State Route 183/Merritt Street.

The surrounding areas consist primarily of agricultural fields. The portion of the pipeline north of the Salinas River is planned to be installed directly under agricultural fields in areas where farmers have easements in the TAMC ROW for farming. The Castroville area of Monterey County has a long agricultural history.

The depth of excavation for pipeline installation will vary depending on location and method of installation. The pipeline will typically be installed with 6 feet of cover under agricultural fields (total trench depth 7.5 feet) and 4 feet of cover under or adjacent to roads (total trench depth 5.5 feet). There may be several places where the trench will be deeper to install the pipe below existing utilities. Pipeline construction will be cut and cover, with one section installed under Tembladero Slough by horizontal directional drilling (HDD) and another short section installed by jack and bore to go under a railroad track just south of the Monte Rd. bridge.

The ED/ER report, prepared by AECOM in July 2017, identified no Recognized Environmental Conditions (RECs) or Historical Recognized Environmental Conditions (HRECs) along the project area or upgradient of the project area within one eighth of a mile. However based on the known use of the area for agricultural purposes, AECOM concluded that the potential use of herbicides and organochlorine pesticides could be a potential environmental concern.

The objective of this hazardous materials investigation was to assess soil and groundwater conditions along the proposed pipeline alignment that could require management and/or mitigation measures during pipeline installation, as follows:

- Material that may pose a risk to Site workers and/or the public and may require 40-hour HAZWOPER trained staff, dust control plans, and dust control implementation.
- Material that may require management of some soil as California or Resource Conservation and Recovery Act (RCRA) hazardous waste, if disposed of off-Site.
- Assessing if groundwater that may be generated during construction dewatering activities can be used as dust control or may require treatment prior to discharge to local surface water or to the local sanitary sewer.

The following sections of this report provide details of the investigation scope of work, soil and groundwater analytical results, soil characterization, quality assurance/quality control (QA/QC), and conclusions and recommendations.

2 Scope of Services

The scope of services for the investigation activities authorized by CAW is detailed in this section.

2.1 Pre-Field Activities

AECOM conducted the following activities prior to sample collection:

- Prepared a work plan for the soil and groundwater investigation activities (AECOM 2018).
- Retained the services of Enthalpy Analytical of Berkeley, California (Enthalpy), a California certified analytical laboratory, to perform the chemical analyses of soil and groundwater samples.
- Retained the services of the drilling contractors PeneCore Drilling (PeneCore) of Woodland, California for soil sample collection.
- Provided a minimum of 48-hour notice of drilling to local public utilities via Underground Service Alert (USA).
- Retained the services of Subtronic Corporation (Subtronic) of Martinez, California to perform an underground utility sweep for possible subsurface utilities not marked by USA.
- Updated the existing site-specific Health and Safety Plan.
- Obtained a soil boring permit from Monterey County Environmental Health (MCEH) Department.
- Obtained a TAMC encroachment permit.

2.2 Investigation Field Activities

Sampling activities were performed by AECOM on February 21, 2018. Work was conducted in accordance with the MCEH soil boring permit and TAMC encroachment permit. The following field activities were performed during the investigation work:

- A tailgate meeting was conducted before the start the day's field work with all on-site AECOM personnel and subcontractors present to discuss site hazards, conduct job safety analyses, and perform equipment inspections.
- PeneCore advanced 5 borings to a total depth of 7 feet below ground surface (bgs) using a hand auger. All 5 borings were located in unpaved locations along the shoulder of Del Monte Rd. or the dirt road adjacent to the abandoned railroad tracks in the TAMC ROW. Borings were located at roughly 3000-ft intervals, as close to the pipeline alignment as possible without going into the planted areas.
- Soil samples were collected from the hand auger for analysis at 0-0.5 foot bgs, 3.5-4 foot bgs, and 6.5-7 feet bgs or just above first groundwater, in accordance with the Hazardous Materials Investigation Work Plan (AECOM, 2018). Groundwater was encountered at approximately 4.5-5 feet bgs in borings B-1, B-2, and B-4, therefore a 6.5-7 foot soil sample was not collected. The locations of each boring are shown on Figures 2A-F. The table below shows the approximate pipeline station numbers for each boring location.

Boring ID	Approximate Station No. from the AECOM Design Plans (dated July 2018)
B-1	73+00
B-2	87+40
B-3	131+40
B-4	164+00
B-5	193+00

- Site-specific labels were placed on all sample containers, which were then packed on ice and transported to Enthalpy for analysis under proper AECOM chain-of-custody documentation.
- Soil samples were analyzed for a combination of the following: total petroleum hydrocarbons (TPH) as diesel (TPH-d) and motor oil (TPH-mo) by U.S. Environmental Protection Agency (EPA) Method 8015B(M); TPH as gasoline (TPH-g), volatile organic compounds (VOCs), and fuel oxygenates by EPA Method 8260B; Title 22 metals by EPA Method 6010B/7471A; organochlorine pesticides by EPA Method 8081; organochlorine herbicides by EPA Method 8151; pH by EPA Method 9045D; and moisture by American Society for Testing and Materials International (ASTM) D2216. See Table 1 for the project sampling plan.
- Grab groundwater samples were collected, with clean disposable bailers, from 3 borings (B-1, B-2, and B-4). Samples were analyzed for TPH-d with silica gel clean up (sg) and TPH-mo (sg), by EPA Method 8015B (M) with EPA Method 3630 for sg; TPH-g, VOCs, and gasoline oxygenates by EPA Method 8260B; and Title 22 metals by EPA Method 6010B/7471A.

2.3 Soil and Groundwater Sampling Procedure

Soil samples for laboratory analysis were collected directly from the hand auger into laboratory-provided sample jars. The hand auger was decontaminated between boring locations with an Alconox solution and then rinsed with deionized water. Geologic logging of the soil encountered in the borings was not conducted.

Soil samples to be analyzed for TPH-g, VOCs, and gasoline oxygenates were collected from the hand auger using a Terra Core® sampler and placed in Volatile Organic Analysis vials (VOAs) containing the appropriate preservatives for soils provided by the lab. All soil and groundwater samples were labeled with site-specific unique labels, placed on ice and delivered to Enthalpy under AECOM chain of custody documentation (Appendix A).

Groundwater was encountered in 3 out of the 5 locations. Grab groundwater samples were collected from the 3 soil boring locations (B-1, B-2, and B-4) using a temporary PVC well casing and a peristaltic pump. All grab groundwater samples were collected in clean, laboratory-supplied sample bottles

containing the appropriate preservative. Samples were labeled with Site specific unique labels, placed into a cooler with ice, and transported to Enthalpy under AECOM chain-of-custody documentation. All groundwater samples for dissolved metals analysis were not preserved and were filtered with a 0.45-micron filter by the lab, before analysis.

2.4 Post-Sampling Activities

Following completion of drilling and sampling activities, all soil borings were backfilled with neat cement grout from total depth to one foot bgs using a tremie pipe. Surrounding soil was used to backfill the remaining one foot to the surface. Boring backfilling activities were inspected and approved by a Monterey County grout inspector, as per the conditions of the Monterey County soil boring permit.

Waste consisting of soil cuttings was stored in a secure steel drum at an approved location on the Site. A soil sample was collected from the drum to characterize the investigation-derived waste (IDW) for disposal purposes. Laboratory results indicated that the waste was non-hazardous and was suitable for disposal as non-hazardous class II soil. Belshire Environmental Services, Inc. handled all waste profiling, transport, and off-site disposal of the drum at Soil Safe in Adelanto, California.

3 Screening Levels and Hazardous Waste Criteria

The soil and groundwater analytical results were compared to the following screening levels in order to evaluate soil and groundwater sample results for worker protection and for soil reuse on-site and/or disposal off-site during construction activities. Actions required at the various screening levels are described, as needed.

3.1 RWQCB Environmental Screening Levels

The San Francisco Regional Water Quality Control Board (RWQCB) February 2016 Rev. 3 Environmental Screening Levels (ESL) values provide a variety of health-protective screening concentrations, which, if exceeded, indicate a potential health threat that may warrant further evaluation. The San Francisco RWQCB ESLs are widely accepted by the state and other local regional water boards. The results of the investigation were compared to the following ESLs.

- Soils: Soil analytical results were compared with Table S-1, Direct Exposure to Human Health Risk Levels, Commercial/Industrial Land Use: Shallow Soil Exposure and Any Land Use/Any Depth Soil Exposure: Construction Worker, of the RWQCB 2016 ESLs (Rev. 3), when available.
- Groundwater : Results were compared to Table GW-4 for groundwater, Gross Contamination Levels of the RWQCB 2016 ESL (Rev. 3), when available. Gross Contamination screening levels are intended to restrict the presence of potential non-aqueous phase liquid (aka “free product”) and limit the overall degradation of groundwater quality.

3.2 Hazardous Waste Determination Criteria

The total concentrations of prescribed elements or compounds are regulated as hazardous waste in California if they exceed the Total Threshold Limit Concentration (TTLC) criteria, which can be found in Title 22 of the California Code of Regulations (CCR). Leachable elements or compounds are also regulated in California based on the Soluble Threshold Limit Concentration (STLC) criteria, which can also be found at Title 22 CCR. Soils that exceed the Toxicity Characteristic Leaching Procedure (TCLP) leachate criteria are a federal hazardous waste under the RCRA regulation.

Soil leachability tests were run iteratively using the California Assessment Manual (CAM) Waste Extraction Test (WET) and the WET with deionized water (DI-WET), and the TCLP (EPA Method 1311), as needed based on the following criteria.

- Each extract analysis test was based on the total metals concentrations.
- Soil samples with analytes on the STLC list with total metals concentrations equal to or greater than 10-times their STLC criterion were extracted using the WET and DI-WET and the extracts analyzed for those metals.
- Soil samples with analytes on the TCLP list with total metals concentrations equal to or greater than 20-times their TCLP criterion were extracted using the TCLP and the extract analyzed for those metals.

4 Investigative Results

A summary of the soil and groundwater investigation results is presented in the following sections. Analyte concentrations detected in soil and groundwater are summarized in Tables 2 through 7. The laboratory soil and groundwater analytical data reports are provided in Appendix A. Laboratory quality control/quality assurance data for the analyses are provided in Appendix B.

4.1 Subsurface Conditions

Observations during field activities indicate that shallow soil at the site generally consists of sand, silt, and clay. Groundwater, when encountered, was found at a depth of between 4.5 – 5 feet bgs.

It should be noted that field activities occurred in February 2018 during the height of the wet season. Groundwater levels would be expected to be lower during the dry season. The estimated groundwater elevations during the February sampling event are shown in the table below.

Boring ID	Depth to Water (Feet bgs)	Ground Surface Elevation (Feet, NAVD88)	Groundwater Elevation (Feet, NAVD88)
B-1	4.5 - 5	13	8.5 - 9
B-2	4.5 - 5	16	11.5 - 12
B-4	4.5 - 5	15	10.5 - 11

4.2 Soil Sample Analytical Results

The laboratory soil analytical results are summarized in Tables 2 through 7 and are discussed below.

4.2.1 Title 22 Metals

The total metals analyses of the soil samples included antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. All soils samples were analyzed for these metals.

Soil leachability tests were run using WET and DI-WET extraction and analysis for lead and chromium. Only samples which exceeded the soil leachability criteria described in section 3.2 were run. No soil had a total metal concentration greater than 20-times their TCLP concentration. Therefore, no TCLP extractions were run.

4.2.1.1 Total Metals

Arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc were detected above the laboratory reporting limit in one or more samples

analyzed. Of these metals detected, arsenic and nickel were detected above the Construction worker ESL .

- Arsenic: All of the soil samples with concentrations above the laboratory reporting limit for arsenic were greater than the construction worker ESL of 0.98 milligrams per kilogram (mg/Kg) (RWQCB). This could be due to arsenic being one of the most widely used pesticides in the US from the 1880 to the 1950s ("The Tangled History of Arsenic and Farming" from The War on Bugs, Will Allen, August 10, 2009). However, background levels of arsenic in soil are known to be high in the San Francisco Bay area, on the order of 11 mg/kg (Duverge 2011). When compared to the background level of 11 mg/kg, one sample (B-3-0-0.5) exceeded the local background ranges of arsenic in soil with a concentration of 24 mg/Kg.

- Nickel: One sample analyzed for nickel exceeded the construction worker ESL of 86 mg/kg. Sample B-3-3.5-4 had a nickel concentration of 94 mg/kg.

Concentrations for all other metals were below their respective ESLs for construction workers. No sample exceeded TTLC regulatory limits. The analytical results for metals are summarized in Table 2.

4.2.1.2 Soluble Metals

STLC: WET and DI-WET extractions were performed on six samples. The resulting extracts were analyzed for lead or chromium, as needed based on any exceedances of the leachate test criteria. The results are as follows:

- Lead: One (1) WET and DI-WET extract was analyzed for lead. The sample did not exceed the STLC value of 5.0 milligram per liter (mg/L).
- Chromium: Five (5) WET and DI-WET extracts were analyzed for chromium. None of the samples exceeded the STLC value of 5.0 mg/L.

The WET and DI-WET analytical results are summarized in Table 7.

4.2.2 TPH-g, TPH-d, and TPH-mo

All the non-surface soil samples were analyzed for TPH-gasoline (TPH-g), -diesel (TPH-d) and –motor oil (TPH-mo). TPH-d was detected above the laboratory reporting limit in five soil samples. All of the detected concentrations were below the construction worker ESL for TPH-d (880 mg/kg).

TPH-mo was detected above the laboratory reporting limit in two soil samples. All of the detected concentrations were below the construction worker ESL for TPH-mo (32,000 mg/kg) and the residential ESL for TPH-mo of 11,000 mg/kg (RWQCB).

TPH-g was not detected above the laboratory reporting limit in any of the soil samples analyzed.

The analytical results for TPH-g, TPH-d, and TPH-mo are summarized in Table 3.

4.2.3 VOCs

All the non-surface soil samples were analyzed for VOCs. VOCs were not detected in any of the soil samples at or above the laboratory reporting limits, with the exception of detections of acetone in three samples. All acetone detections were below the construction worker ESL of 260,000 mg/kg

and the RWQCB residential ESL of 59,208 mg/kg. Acetone is an occasional laboratory contaminant and is not expected to be present in site soils. The analytical detection results for VOCs are summarized in Table 4.

4.2.4 Organochlorine Pesticides and Herbicides

The surface samples (0 – 0.5 ft) from each of the 5 soil borings were analyzed for pesticides and herbicides. The organochlorine pesticides 4,4'-DDE, 4,4'-DDT, Dieldrin, and Endrin were detected above the laboratory reporting limit in one or more samples analyzed. All of the detected concentrations were below their respective construction worker ESLs.

No herbicides were detected above the laboratory reporting limit.

The analytical results for herbicides and pesticides are summarized in Table 5.

4.2.5 pH

Five soil samples were analyzed for pH. The soil pH ranged from 6.7 (B-1-0-0.5) to 7.9 (B-3-6.5-7), indicating ph-neutral soil. The pH analytical results are summarized in Table 6.

4.3 Groundwater Sample Analytical Results

The groundwater analytical results for the three samples collected are summarized in Tables 2 through Table 4.

Groundwater sample results were compared to MCL priority screening level ESLs only due to the fact that any encountered groundwater would not be used off-site. Any water that leaves the Site would need to be collected and treated, if necessary, in accordance with any applicable discharge permit(s) requirements.

4.3.1 Title 22 Metals

The metals analyses included total antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc.

Arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, and zinc were detected above the laboratory reporting limit in one or more samples.

Concentrations for all metals were below their respective gross contamination ESL. The analytical results for metals are summarized in Table 2.

4.3.2 TPH-g, TPH-d, and TPH-mo

TPH-d was detected above the laboratory reporting limit in two groundwater samples. These concentrations are below the gross contamination ESL for TPH-d of 2,500 µg/L. TPH-g and TPH-mo were not detected above the laboratory reporting limit in any of the samples analyzed.

The analytical results for TPH-g, TPH-d, and TPH-mo are summarized in Table 3.

4.3.3 VOCs

VOCs were not detected at or above the laboratory reporting limits in any of the groundwater samples analyzed. The analytical results for VOCs are summarized in Table 4.

4.4 Laboratory Quality Assurance/Quality Control

Enthalpy's certified analytical reports were subjected to a QA/QC review and data validation by AECOM. The laboratory soil and groundwater analytical data from the February 21, 2018 sampling were reviewed according to the Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA 2017) and Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA 2017).

Based on the data quality evaluation, no systematic problems were detected and the overall data objectives for sample contamination, precision, accuracy, and sample integrity were met. It was concluded that these analytical data are of acceptable quality and may be used for their intended purposes, with the qualifications noted.

A more detailed discussion of the QA/QC analytical data is included in Appendix B.

5 Conclusions and Recommendations

Based on the results of the soil and groundwater investigation AECOM has developed the following conclusions and recommendations presented below.

5.1 Conclusions

5.1.1 Metals

Soil

A majority of the metal concentrations detected appear to be representative of background conditions. Construction worker ESL exceedances were noted for arsenic and nickel. All soil samples exceeded the construction worker ESL for arsenic. Only one soil sample exceeded the background concentration for arsenic. There was one soil sample which exceeded the construction worker ESL for nickel.

No metals concentrations exceeded the TTLC and none of the samples exceeded the STLC value (5.0 mg/L) for soluble lead or chromium. Based on this the soil is not considered California hazardous waste for total metals for off-site disposal. The trigger concentration to run the TCLP analysis (20 times the TCLP) criterion was not exceeded. Therefore, no TCLP analyses were conducted.

Groundwater

None of the metals results for groundwater exceeded the gross contamination level of 50,000 µg/L for all metals.

5.1.2 TPH-g, TPH-d, and TPH-mo

Soil

TPH-d was detected above the laboratory reporting limit in five soil samples. All of the detected concentrations were below the construction worker ESL for TPH-d (880 mg/kg).

TPH-mo was detected above the laboratory reporting limit in two soil samples. All of the detected concentrations were below the construction worker ESL for TPH-mo (32,000 mg/kg).

TPH-g was not detected in any of the soil samples.

Groundwater

Detected concentrations of TPH-d were below the gross contamination level. No TPH-g or TPH-mo were detected in the groundwater samples analyzed.

5.1.3 VOCs

Soil

All soil VOC concentrations were below their laboratory reporting limits, with the exception of acetone. All the acetone detections were below both the construction worker and shallow soil exposure ESLs. Acetone is an occasional laboratory contaminant and is not suspected to be present in site soils.

Groundwater

All groundwater VOC concentrations were below their respective laboratory reporting limits.

5.1.4 Organochlorine Pesticides and Herbicides

The organochlorine pesticides 4,4'-DDE, 4,4'-DDT, Dieldrin, and Endrin were detected above the laboratory reporting limit in one or more of the soil samples analyzed. All of the detected concentrations were below their respective construction worker ESLs.

Herbicides were not detected in any of the soil samples.

5.1.5 pH

The results indicate the soil is a neutral pH (not acidic; not alkaline).

5.2 General Recommendations

5.2.1 Soil Reuse or Disposal

The project area soil can be reused on-site as needed. Any soil to be disposed of can be shipped as non-hazardous waste to a Class II landfill. If any stained or odoriferous soil is encountered during soil excavation activities, these soils should be stockpiled separately on plastic sheeting from other soils and covered. The soil should be sampled, characterized, and profiled for proper off-site disposal.

A Site dust control plan should be in place by the Contractor during construction activities.

5.2.2 Groundwater Reuse or Disposal

If any dewatering occurs during project activities the water may be used as dust control on-site.

If groundwater disposal is required, it is noted that there are no public sanitary sewers or storm drains near the Site. Any groundwater generated from dewatering activities that needs to be removed from the Site will likely need to be be stored, treated (if necessary), transported, and disposed of under the proper discharge permit(s).

5.3 Recommended PPE

Level D personal protective equipment (PPE) should be worn by personnel when working with Site soils and groundwater. As described by the United States Department of Labor: Occupational Safety and Health Administration (OSHA) Level D PPE includes but is not limited to:

- Coveralls
- Gloves (Nitrile, leather, cut resistant, etc…)*
- Boots/shoes, chemical-resistant steel toe and shank
- Boots, outer, chemical-resistant (disposable)*
- Safety glasses or chemical splash goggles*
- Hard hat*
- Escape mask*
- Face shield*

- Dust mask (to be worn while on site during the dry season and/or when a Site dust control plan is not in place)

  *Optional, as applicable

Site-specific PPE should be listed in the site-specific health and safety plan. Any contractor working on site should have their own site-specific Health and Safety plan.

6 Limitations

This report was prepared for CAW; any use by third parties is at the third parties' sole risk. This report and the associated work have been provided in accordance with the principles and practices generally employed by the local environmental consulting profession. This is in lieu of all warranties, expressed or implied.

No investigation is thorough enough to explore the presence of hazardous material at every location along the pipeline alignment. It is assumed that the samples collected and analyzed in accordance with the agreed scope of work are typical of conditions at the Site at the time of the planned construction. If soil or groundwater conditions are observed that differ from those in this report, AECOM should be notified so that additional recommendations can be made.

It would be extremely expensive, and perhaps impossible, to conduct a Site reconnaissance or investigation that would ensure detection of all materials in the project that might be considered hazardous now or in the future. The fact that AECOM did not discover hazardous materials through a reasonable and mutually agreed upon limited scope of work does not guarantee that hazardous materials do not exist in an area. Similarly, an area that is unaffected by hazardous materials at the time of our assessment may later, due to natural phenomena or human intervention, become contaminated.

7 References

AECOM 2017, California America Water – Monterey Peninsula Water Supply Project, Monterey County, CA – Environmental Database/ Document Review Report for the Castroville Pipeline, July.

AECOM 2018, Monterey Peninsula Water Supply Project – Water Conveyance Pipeline Castroville Segment, Hazardous Materials Investigation Work Plan, February 2.

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Tables

Table 1: Hazmat Sampling Plan
Castroville Pipeline Project
Castroville, California

Boring ID	Sample Matrix	Depth (feet)	Title 22 Metals	TPH-d & TPH-mo	VOCs, TPH-g, Gasloine Oxygenates	Organochlorine Pesticides	Organochlorine Herbicides	pH	Moisture
EPA Method			6010	8015M	8260	8081	8151	9045D (soil) 9040C (water)	D2216
B-1	Soil/GW	0 - 0.5	X			X	X	X	X
		3.5 - 4	X	X	X				X
		6.5 - 7/groundwater	X	X	X			X(GW)	X
B-2	Soil/GW	0 - 0.5	X			X	X		X
		3.5 - 4	X	X	X			X	X
		6.5 - 7/groundwater	X	X	X			X(GW)	X
B-3	Soil/GW	0 - 0.5	X			X	X		X
		3.5 - 4	X	X	X				X
		6.5 - 7/groundwater	X	X	X			X(Soil/GW)	X
B-4	Soil/GW	0 - 0.5	X			X	X	X	X
		3.5 - 4	X	X	X				X
		6.5 - 7/groundwater	X	X	X			X(GW)	X
B-5	Soil/GW	0 - 0.5	X			X	X		X
		3.5 - 4	X	X	X			X	X
		6.5 - 7/groundwater	X	X	X			X(GW)	X

Abbreviations:

EPA - United States Environmental Protection Agency

GW - groundwater

TPH - total pertroleum hydrocarbon

TPH-d - TPH as diesel

TPH-g - TPH as gasoline

TPH-mo - TPH as motor oil

VOCs - Volatile Organic Compounds

Table 2: Title 22 Metals in Soil and Groundwater Analytical Results
Castroville Pipeline Project
Castroville, California

Sample ID	Sample Location	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		EPA Method	6010B									7471A	6010B						
SOIL																			
		TTLC Limit	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
		RWQCB ESL[1] - Construction Worker (mg/Kg)	140	11*	3,000	42	43	530,000[2]	28	14,000	160	44	1,800	86	1,700	1,800	3.5	470	110,000
		Units	mg/Kg																
B-1-0-0.5	B-1	2/21/2018	<2.3	**4.7**	**100**	**0.59**	**1.3**	**48**	**11**	**25**	**51**	**0.032**	**1.3**	**58**	<2.3	<0.3	<0.6	**48**	**91**
B-1-3.5-4		2/21/2018	<2.6	**5.6**	**140**	**0.7**	**0.99**	**56**	**11**	**18**	**6.2**	**0.026**	**1.4**	**72**	<2.6	<0.33	<0.66	**52**	**61**
B-2-0-0.5	B-2	2/21/2018	<2.1	**6.2**	**110**	**0.58**	**1.1**	**49**	**10**	**32**	**22**	**0.038**	**1.3**	**58**	<2.1	<0.26	<0.52	**52**	**88**
B-2-3.5-4		2/21/2018	<2.5	**5**	**120**	**0.68**	**0.83**	**57**	**11**	**18**	**6**	<0.022	**1.5**	**72**	<2.5	<0.32	<0.63	**51**	**59**
B-3-0-0.5	B-3	2/21/2018	<2.2	**24**	**120**	**0.61**	**1.1**	**47**	**11**	**35**	**12**	**0.02**	**1.4**	**60**	<2.2	<0.27	<0.54	**53**	**70**
B-3-3.5-4		2/21/2018	<2.4	**8.2**	**160**	**0.9**	**1.3**	**71**	**14**	**30**	**9.2**	**0.037**	**1.7**	**94**	<2.4	<0.3	<0.6	**63**	**78**
B-3-6.5-7		2/21/2018	<2.4	**4.6**	**120**	**0.6**	**0.76**	**53**	**11**	**17**	**5.2**	<0.022	**1.0**	**65**	<2.4	<0.3	<0.6	**47**	**50**
B-4-0-0.5	B-4	2/21/2018	<2.2	**11**	**150**	**0.67**	**0.99**	**54**	**11**	**23**	**13**	<0.02	**1.4**	**63**	<2.2	<0.27	<0.55	**52**	**60**
B-4-3.5-4		2/21/2018	<2.5	**3.6**	**94**	**0.53**	**0.76**	**44**	**8.9**	**11**	**4.1**	<0.021	**0.94**	**53**	<2.5	<0.31	<0.62	**41**	**43**
B-4-6.5-7		2/21/2018	<2.4	**4.3**	**110**	**0.58**	**1.0**	**47**	**10**	**14**	**4.8**	<0.022	**0.75**	**56**	<2.4	<0.3	<0.6	**46**	**46**
B-5-0-0.5	B-5	2/21/2018	<2	**5.3**	**120**	**0.66**	**0.73**	**44**	**9.4**	**13**	**15**	**0.04**	**1.0**	**44**	<2	<0.25	<0.51	**46**	**48**
B-5-3.5-4		2/21/2018	<2.4	**4.3**	**130**	**0.64**	**0.67**	**43**	**13**	**12**	**7.7**	**0.026**	**1.1**	**36**	<2.4	<0.31	<0.62	**42**	**41**
B-5-6.5-7		2/21/2018	<2.5	**4.5**	**120**	**0.67**	**0.96**	**43**	**10**	**14**	**6.5**	**0.039**	**0.82**	**42**	<2.5	<0.32	<0.64	**45**	**46**
Groundwater																			
		Units	µg/L																
		RWQCB Gross Contamination ESL[3]	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
B-1-GW	B-1	2/21/2018	<10	**25**	**1,400**	**6.1**	**18**	**120**	**140**	**87**	**23**	<0.2	**6**	**350**	<20	**7.6**	<10	**180**	**260**
B-2-GW	B-2	2/21/2018	<10	**44**	**1,300**	**19**	**57**	**120**	**220**	**160**	**13**	**1.4**	<5	**940**	<20	**16**	<10	**200**	**390**
B-4-GW	B-4	2/21/2018	<10	**40**	**960**	**11**	**55**	**120**	**210**	**190**	**19**	**0.81**	<5	**510**	<20	**14**	<10	**220**	**280**

Notes:

Bolded values indicate detections over the laboratory reporting limits

1. Table S-1. Direct Exposure to Human Health Risk Levels, Any Land Use/Any Depth Soil Exposure: Construction Worker
2. Chromuim III is used, no known historical chromium VI
3. RWQCB ESLs (Feb 2016), Gross Contamination Levels from Table GW-4: Groundwater Gross Contamination Levels

* In lieu of the ESL for arsenic (0.98 mg/kg), the proposed upper estimate for background arsenic of 11 mg/kg was used. This estimate was based on a published master's thesis (Duvergé, 2011)

indicates detection of one or more metals which have triggered Soulable Threshold Limit Concentration (STLC)

indicates detections which have exceeded the respective Tier 2 ESL Construction Worker concentration

Abbreviations:

EPA: US Environmental Protection Agency
mg/Kg: Milligram per kilogram
TTLC: Total Threshold Limit Concentration
µg/L: microgram per liter

Table 3: Total Petroleum Hydrocarbons in Soil and Groundwater Analytical Results
Castroville Pipeline Project
Castroville, California

Sample Location	Sample Depth	Sample Date	TPH-G	TPH-D	TPH-D with SGC	TPH-mo	TPH-mo with SGC
		EPA Method	8015B	8015B	8015B	8015B	8015B
SOIL							
RWQCB ESL[1] - Construction Worker (mg/Kg)			2,800	880	880	32,000	32,000
		Units	**mg/Kg**				
B-1-0-0.5	0-0.5	2/21/2018	--	--	--	--	--
B-1-3.5-4	3.5-4	2/21/2018	<0.24	<1.4	<1.4	<6.8	<6.8
B-2-0-0.5	0-0.5	2/21/2018	--	--	--	--	--
B-2-3.5-4	3.5-4	2/21/2018	<0.20	**1.3** J	<1.3	<6.4	<6.4
B-3-0-0.5	0-0.5	2/21/2018	--	--	--	--	--
B-3-3.5-4	3.5-4	2/21/2018	<0.20	**2** J	<1.3	<6.6	<6.6
B-3-6.5-7	6.5-7	2/21/2018	<0.18	<1.3	<1.3	<6.3	<6.3
B-4-0-0.5	0-0.5	2/21/2018	--	--	--	--	--
B-4-3.5-4	3.5-4	2/21/2018	<0.22	**2.7** J	<1.3	**8.8**	<6.5
B-4-6.5-7	6.5-7	2/21/2018	<0.22	<1.3	<1.3	<6.4	<6.4
B-5-0-0.5	0-0.5	2/21/2018	--	--	--	--	--
B-5-3.5-4	3.5-4	2/21/2018	<0.20	**3.3** J	<1.2	**9.1**	<6.1
B-5-6.5-7	6.5-7	2/21/2018	<0.18	**2.2** J	<1.3	<6.3	<6.3
Groundwater							
RWQCB Gross Contamination ESL[2] (µg/L)			50,000	2,500	2,500	50,000	50,000
		Units	**µg/L**				
B-1-GW	GW	2/21/2018	<50	**56** J	<49	<290	<290
B-2-GW	GW	2/21/2018	<50	**50** J	<49	<290	<290
B-4-GW	GW	2/21/2018	<50	<49	<49	<290	<290

Notes:

Bolded values indicate detections over the laboratory reporting limits or method detection limits

1 Table S-1. Direct Exposure to Human Health Risk Levels, Any Land Use/Any Depth Soil Exposure: Construction Worker current or potential drinking water resource)

2 RWQCB ESLs (Feb 2016), Gross Contamination Levels from Table GW-4: Groundwater Gross Contamination Levels

Abbreviations:

EPA: US Environmental Protection Agency
mg/Kg: Milligram per kilogram
TPH: Total Petroleum Hydrocarbons
TPH-D: TPH as diesel
TPH-G: TPH as gasoline
TPH-MO: TPH as motor oil
J = Sample exhibits chromatographic pattern which does not resemble standard.

ESL: Environmental Screening Level
RWQCB: Regional Water Quality Control Board
SGC: silica gel clean up
µg/L: microgram per liter

Table 4: VOCs in Soil and Groundwater Analytical Results
Castroville Pipeline Project
Castroville, California

Sample Location	Sample Depth	Sample Date	Acetone
		EPA Method	8260B
SOIL			
		RWQCB ESL[1] - Construction Worker (mg/Kg)	NA
		Units	mg/Kg
B-1-0-0.5	0-0.5	2/21/2018	--
B-1-3.5-4	3.5-4	2/21/2018	<0.025
B-2-0-0.5	0-0.5	2/21/2018	--
B-2-3.5-4	3.5-4	2/21/2018	**0.02**
B-3-0-0.5	0-0.5	2/21/2018	--
B-3-3.5-4	3.5-4	2/21/2018	<0.023
B-3-6.5-7	6.5-7	2/21/2018	**0.025**
B-4-0-0.5	0-0.5	2/21/2018	--
B-4-3.5-4	3.5-4	2/21/2018	<0.02
B-4-6.5-7	6.5-7	2/21/2018	<0.02
B-5-0-0.5	0-0.5	2/21/2018	--
B-5-3.5-4	3.5-4	2/21/2018	**0.025**
B-5-6.5-7	6.5-7	2/21/2018	<0.018
Groundwater			
		Units	µg/L
		RWQCB Gross Contamination ESL[2]	50,000
B-1-GW	GW	2/21/2018	<10
B-2-GW	GW	2/21/2018	<10
B-4-GW	GW	2/21/2018	<10

Notes:
Bolded values indicate detections over the laboratory reporting limits
Only analytes with detections above the laboratory reporting limit are shown
1 Table S-1. Direct Exposure to Human Health Risk Levels, Any Land Use/Any Depth Soil Exposure: Construction Worker
2 RWQCB ESLs (Feb 2016), Gross Contamination Levels from Table GW-4: Groundwater Gross Contamination Levels
ESLs were selected as the Tier 2 ESL.

Abbreviations:
EPA: US Environmental Protection Agency
ESL: Environmental Screening Limit
RWQCB: Regional Water Quality Control Board
µg/L: microgram per liter

Table 5: Herbicides and Pesticides in Soil Analytical Results
Castroville Pipeline Project
Castroville, California

Sample ID	Sample Location	Sample Depth	Sample Date	4,4'-DDE	4,4'-DDT	Dieldrin	Endrin
			EPA Method	8081A	8081A	8081A	8081A
Soil							
				Pesticides			
RWQCB ESL[1] -Construction Worker (mg/Kg)				57	57	1.1	74
			Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg
B-1-0-0.5	B-1	0-0.5	2/21/2018	**0.11**	**0.13**	<0.0097	<0.019
B-2-0-0.5	B-2	0-0.5	2/21/2018	**0.075**	**0.1**	<0.0099	<0.019
B-3-0-0.5	B-3	0-0.5	2/21/2018	**0.13**	**0.25**	**0.027**	**0.013**
B-4-0-0.5	B-4	0-0.5	2/21/2018	<0.0019	<0.0019	<0.00099	<0.0019
B-5-0-0.5	B-5	0-0.5	2/21/2018	**0.0057**	**0.0072**	<0.00096	<0.0019

Notes:
Bolded values indicate detections over the laboratory reporting limits or method detection limits
Only analytes with detections above the laboratory reporting limit are shown.
1 Table S-1. Direct Exposure to Human Health Risk Levels, Any Land Use/Any Depth Soil Exposure: Construction Worker

Abbreviations:
EPA: US Environmental Protection Agency
ESL: Environmental Screening Level
RWQCB: Regional Water Quality Control Board

Table 6: pH and Percent Moisture in Soil Analytical Results
Castroville Pipeline Project
Castroville, California

Sample Location	Sample Depth	pH	Percent Moisture
SOIL			
	EPA Method	SW9045C	D2216
	Unit	SU	%
B-1	0-0.5	6.7	13
	3.5-4	--	26
B-2	0-0.5	--	13
	3.5-4	7.4	22
B-3	0-0.5	--	11
	3.5-4	--	24
	6.5-7	7.9	21
B-4	0-0.5	7.1	14
	3.5-4	--	22
	6.5-7	--	22
B-5	0-0.5	--	10
	3.5-4	7.5	18
	6.5-7	--	20

Abbreviations:

EPA: US Environmental Protection Agency

S. U.: Standard unit

--: Not analyzed for

Table 7: Leachability in Soil Analytical Results
Castroville Pipeline Project
Castroville, CA

Sample ID	Sample Depth	Sample Date	Total Lead	Lead STLC	Lead STLC (DI)	Total Chromium	Chromium STLC	Chromium STLC (DI)
		EPA Method	6010B	6010B	6010B	6010B	6010B	6010B
		STLC Limit (mg/L)	NA	5	5	NA	5	5
		Units	mg/Kg	mg/L	mg/L	mg/Kg	mg/L	mg/L
B-1-0-0.5	0-0.5	2/21/2018	**51**	**1.7**	<0.0050	--	--	--
B-1-3.5-4	3.5-4	2/21/2018	--	--	--	**56**	<0.25	<0.0050
B-2-3.5-4	3.5-4	2/21/2018	--	--	--	**57**	<0.25	<0.0050
B-3-3.5-4	3.5-4	2/21/2018	--	--	--	**71**	<0.25	<0.0050
B-3-6.5-7	6.5-7	2/21/2018	--	--	--	**53**	<0.25	<0.0050
B-4-0-0.5	0-0.5	2/21/2018	--	--	--	**54**	**0.25**	<0.0050

Notes:

Bolded values indicate detections over the laboratory reporting limits

Abbreviations:

EPA: US Environmental Protection Agency

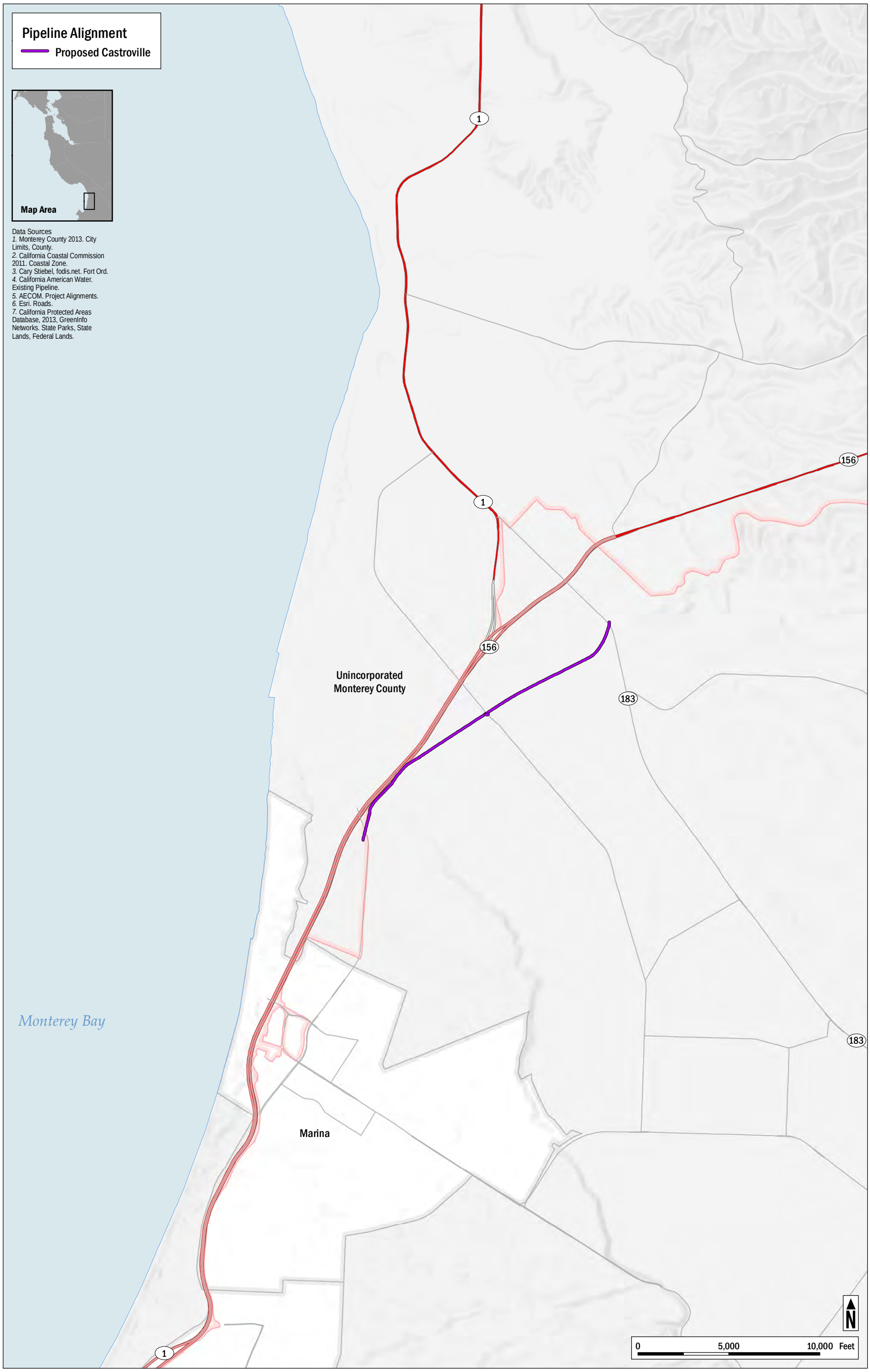
DI: Waste extration test run with deionized water as the extratant

mg/Kg: Milligram per kilogram

mg/L: Milligram per liter

STLC: Soluable Threshold Limit Concentration

Figures



AECOM

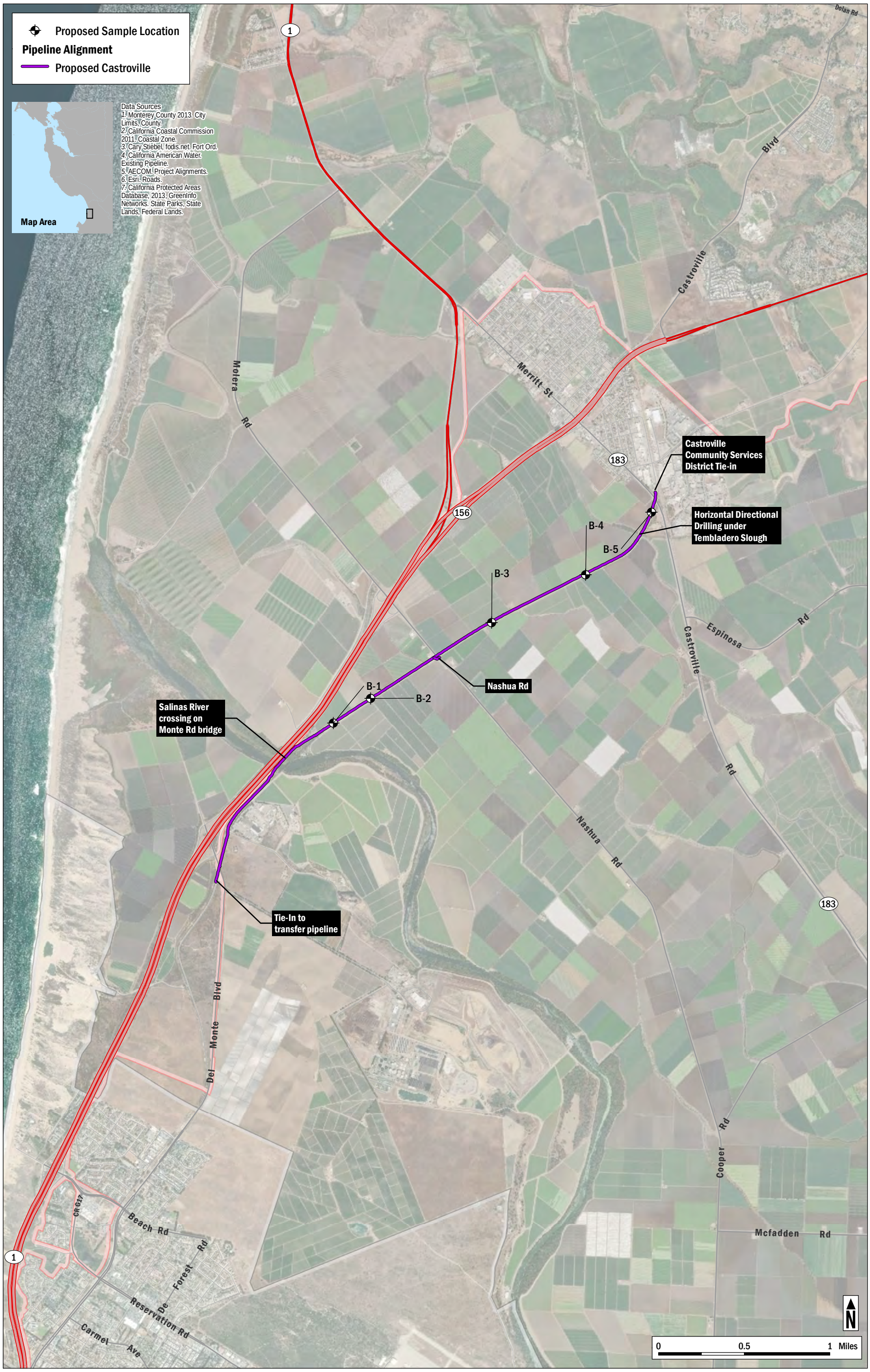
California American Water

Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 1

Project Area



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California American Water

Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2A

Project Route

AECOM

California American Water

Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2B

Soil Boring Location Map

AECOM

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Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2C

Soil Boring Location Map

AECOM

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Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2D

Soil Boring Location Map

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Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2E

Soil Boring Location Map

AECOM

California American Water

Transmission Mains and Aquifer Storage & Recovery (ASR) Facilities

MONTEREY PENINSULA WATER SUPPLY PROJECT, MPWSP

FIGURE 2F

Soil Boring Location Map

Appendix A

Laboratory Reports and Chain of Custody Documentation in Electronic Format

Appendix A: Laboratory Reports and Chain of Custody Documentation

1. **Enthalpy Lab Report 297333**
2. **Enthalpy Lab Report 297334**
3. **Enthalpy Lab Report 297624**

ea

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 297333
ANALYTICAL REPORT

AECOM	Project	: 60489016
300 Lakeside Drive	Location	: CalAm_Monterey Peninsula Water Supply
Oakland, CA 94612	Level	: II

Sample ID	Lab ID
B-1-0-0.5	297333-001
B-2-0-0.5	297333-002
B-3-0-0.5	297333-003
B-4-0-0.5	297333-004
B-5-0-0.5	297333-005

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

Signature: Tracy Babjar Date: 03/12/2018

Tracy Babjar
Project Manager
tracy.babjar@enthalpy.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**297333**
Client:	**AECOM**
Project:	**60489016**
Location:	**CalAm_Monterey Peninsula Water Supply**
Request Date:	**02/22/18**
Samples Received:	**02/21/18**

This data package contains sample and QC results for five soil samples, requested for the above referenced project on 02/22/18. The samples were received cold and intact.

Moisture (ASTM D2216-98/CLP):
Eurofins (CalScience) in Garden Grove, CA performed the analysis (not NELAP certified). Please see the Eurofins (CalScience) case narrative.

Chlorophenoxy Herbicides (EPA 8151):
Eurofins (CalScience) in Garden Grove, CA performed the analysis (NELAP certified). Please see the Eurofins (CalScience) case narrative.

Enthalpy Analytical LLC
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 297333

Project No: 60489016
Project Name: Castroville
EDD Format: _____ Rpt Level: ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☒ Standard

Sampler: Hunter Snyder
Report To: Suzanne Nase
Company : AECOM
Telephone: 510-874-3196
Email: Suzanne.nase@aecom.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix Water	Matrix Soil	Matrix	Matrix	# of Containers	Chemical Preservative SOBI	CH3OH	HNO_3	NaOH	None	Analytical Request: Chlorinated Herbicides (EPA 8151)	Moisture (ASTM D2216)
	B-1-0-0.5	2.21.18	0940		x			1					x	x	x
	B-2-0-0.5	2.21.18	1104		x			1					x	x	x
	B-3-0-0.5	2.21.18	1202		x			1					x	x	x
	B-4-0-0.5	2.21.18	1234		x			1					x	x	x
	B-5-0-0.5	2.21.18	1345		x			1					x	x	x

Notes:

Please also send report to Hunter Snyder

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
[signature] 2-21 17:01 DATE/TIME
DATE/TIME
DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 297333 Client: AECOM

Date Received: 2/21/18 Project: Castroville

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☒ Yes, how many? 1 ☐ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/21/18 By (print) TKy (sign) TKy

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

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

Packing in cooler: (if other, describe) _____

☒ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☒ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☒ A ☐ B

Cooler Temp (°C): #1: 2.6, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

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

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

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2.22.18 **By (print)** tp **(sign)** tp

Date Labeled 2/22/18 **By (print)** TKy **(sign)** TKy

Laboratory Job Number 297333

Subcontracted Products

Eurofins (CalScience)

eurofins | Calscience

WORK ORDER NUMBER: 18-02-1779

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Enthalpy Analytical

Client Project Name: 297333

Attention: Tracy Babjar
2323 Fifth Street
Berkeley, CA 94710-2407

Vikas Patel

Approved for release on 03/09/2018 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

CA ELAP ID: 2944 | CSDLAC ID: 10109

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Contents

Client Project Name: 297333
Work Order Number: 18-02-1779

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Work Order Narrative

Work Order: 18-02-1779 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/27/18. They were assigned to Work Order 18-02-1779.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

DoD Projects:

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

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Sample Summary

Client:	Enthalpy Analytical 2323 Fifth Street Berkeley, CA 94710-2407	Work Order:	18-02-1779
		Project Name:	297333
		PO Number:	
		Date/Time Received:	02/27/18 10:40
		Number of Containers:	5
Attn:	Tracy Babjar		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-1-0-0.5	18-02-1779-1	02/21/18 09:40	1	Solid
B-2-0-0.5	18-02-1779-2	02/21/18 11:04	1	Solid
B-3-0-0.5	18-02-1779-3	02/21/18 12:02	1	Solid
B-4-0-0.5	18-02-1779-4	02/21/18 12:34	1	Solid
B-5-0-0.5	18-02-1779-5	02/21/18 13:45	1	Solid

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Detections Summary

Client:	Enthalpy Analytical 2323 Fifth Street Berkeley, CA 94710-2407	Work Order: Project Name: Received:	18-02-1779 297333 02/27/18
Attn:	Tracy Babjar		

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-0-0.5 (18-02-1779-1)						
Moisture	15		0.10	%	ASTM D-2216 (M)	N/A
B-2-0-0.5 (18-02-1779-2)						
Moisture	15		0.10	%	ASTM D-2216 (M)	N/A
B-3-0-0.5 (18-02-1779-3)						
Moisture	13		0.10	%	ASTM D-2216 (M)	N/A
B-4-0-0.5 (18-02-1779-4)						
Moisture	14		0.10	%	ASTM D-2216 (M)	N/A
B-5-0-0.5 (18-02-1779-5)						
Moisture	10		0.10	%	ASTM D-2216 (M)	N/A

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	N/A
		Method:	ASTM D-2216 (M)
		Units:	%
Project: 297333			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-0-0.5	**18-02-1779-1-A**	**02/21/18 09:40**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	15	0.10	1.00	

B-2-0-0.5	**18-02-1779-2-A**	**02/21/18 11:04**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	15	0.10	1.00	

B-3-0-0.5	**18-02-1779-3-A**	**02/21/18 12:02**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	13	0.10	1.00	

B-4-0-0.5	**18-02-1779-4-A**	**02/21/18 12:34**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	14	0.10	1.00	

B-5-0-0.5	**18-02-1779-5-A**	**02/21/18 13:45**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	10	0.10	1.00	

Method Blank	**099-05-014-7625**	**N/A**	**Solid**	**N/A**	**02/28/18**	**03/01/18 10:30**	**I0301MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
		Units:	ug/kg
Project: 297333			Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-0-0.5	**18-02-1779-1-A**	**02/21/18 09:40**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 19:12**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	90	44-146	

B-2-0-0.5	**18-02-1779-2-A**	**02/21/18 11:04**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 19:35**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	95	44-146	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
		Units:	ug/kg
Project: 297333			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-0-0.5	**18-02-1779-3-A**	**02/21/18 12:02**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 20:14**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	9.9	1.00	
MCPP	ND	9900	1.00	
MCPA	ND	9900	1.00	
Dichlorprop	ND	99	1.00	
2,4-D	ND	99	1.00	
2,4,5-TP (Silvex)	ND	9.9	1.00	
2,4,5-T	ND	9.9	1.00	
2,4-DB	ND	99	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	78	44-146	

B-4-0-0.5	**18-02-1779-4-A**	**02/21/18 12:34**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 20:38**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	9.9	1.00	
MCPP	ND	9900	1.00	
MCPA	ND	9900	1.00	
Dichlorprop	ND	99	1.00	
2,4-D	ND	99	1.00	
2,4,5-TP (Silvex)	ND	9.9	1.00	
2,4,5-T	ND	9.9	1.00	
2,4-DB	ND	99	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	85	44-146	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
		Units:	ug/kg
Project: 297333			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5-0-0.5	**18-02-1779-5-A**	**02/21/18 13:45**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 21:01**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	9.9	1.00	
MCPP	ND	9900	1.00	
MCPA	ND	9900	1.00	
Dichlorprop	ND	99	1.00	
2,4-D	ND	99	1.00	
2,4,5-TP (Silvex)	ND	9.9	1.00	
2,4,5-T	ND	9.9	1.00	
2,4-DB	ND	99	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	88	44-146	

Method Blank	**095-01-033-1553**	**N/A**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 16:25**	**180228L05**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	97	44-146	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 297333			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-02-1777-2	**Sample**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 18:21**	**180228S05**
18-02-1777-2	**Matrix Spike**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 17:12**	**180228S05**
18-02-1777-2	**Matrix Spike Duplicate**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 17:35**	**180228S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	ND	400.0	370.0	92	391.1	98	32-146	6	0-37	
2,4,5-T	ND	40.00	41.00	102	43.56	109	27-147	6	0-37	
2,4-DB	ND	400.0	363.0	91	373.3	93	31-151	3	0-42	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 297333			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18-02-1815-1	**Sample**	**Solid**	**N/A**	**02/28/18 00:00**	**03/01/18 10:30**	**I0301MOID1**
18-02-1815-1	**Sample Duplicate**	**Solid**	**N/A**	**02/28/18 00:00**	**03/01/18 10:30**	**I0301MOID1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	77.10	77.30	0	0-10	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Enthalpy Analytical		Date Received:	02/27/18
2323 Fifth Street		Work Order:	18-02-1779
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 297333			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
095-01-033-1553	**LCS**	**Solid**	**GC 40**	**02/28/18**	**03/01/18 16:48**	**180228L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
2,4-D	400.0	457.0	114	49-127	
2,4,5-T	40.00	48.00	120	31-145	
2,4-DB	400.0	425.0	106	48-132	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 18-02-1779 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1136	N/A	1
EPA 8151A	EPA 8151A	1096	GC 40	1

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Glossary of Terms and Qualifiers

Work Order: 18-02-1779 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Enthalpy Berkeley

2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

18-02-1779

Project Number: 297333
Site: CalAm_Monterey Peninsula Water Supply

Subcontract Laboratory:
Eurofins (CalScience)
7440 Lincoln Way
Garden Grove, CA 92841-1432
(714) 895-5494
ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@enthalpy.com)
*** Please report using Sample ID rather than Enthalpy (Berkeley) Lab #.

Sample ID	Sampled	Matrix	Analysis	Lab #	Comments
B-1-0-0.5	02/21 09:40	Soil	8151	297333-001	1
B-1-0-0.5	02/21 09:40	Soil	MOISTURE	297333-001	
B-2-0-0.5	02/21 11:04	Soil	8151	297333-002	2
B-2-0-0.5	02/21 11:04	Soil	MOISTURE	297333-002	
B-3-0-0.5	02/21 12:02	Soil	8151	297333-003	3
B-3-0-0.5	02/21 12:02	Soil	MOISTURE	297333-003	
B-4-0-0.5	02/21 12:34	Soil	8151	297333-004	4
B-4-0-0.5	02/21 12:34	Soil	MOISTURE	297333-004	
B-5-0-0.5	02/21 13:45	Soil	8151	297333-005	5
B-5-0-0.5	02/21 13:45	Soil	MOISTURE	297333-005	

Notes:	Relinquished By:	Received By:
	Date/Time: 02/26/18 13:35	Date/Time:
	Date/Time:	Date/Time: 2/27/18 1040

Signature on this form constitutes a firm Purchase Order for the services requested above.

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GSO

800-322-5555
www.gso.com

1779

Ship From
CURTIS & TOMPKINS
MICHAEL DAHLQUIST
2323 FIFTH STREET
BERKELEY, CA 94710

Ship To
EUROFINS (CALSCIENCE)
VIK PATEL
7440 LINCOLN WAY
92841-1432
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: STANDARD

Tracking #: 539592719

PDS

ORC
GARDEN GROVE

A

D92845A

80013741

Print Date: 2/26/2018 1:31 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.
Step 2: Fold this page in half.
Step 3: Securely attach this label to your package and do not cover the barcode.

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

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WORK ORDER NUMBER: 18-02-1779

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Enthalpy

DATE: 02/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.7 °C (w/ CF): 2.9 °C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: IS

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: IS
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: [illegible]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	☐	☐	☑
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH__9)

☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH__2) ☐ 250PB ☐ 250PBn (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH__2) ☐ 500PB

☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs (pH__2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH__12) ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (___) ☐ EnCores® (___) ☐ TerraCores® (___) ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: [illegible]

Reviewed by: [illegible]

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ea

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 297334
ANALYTICAL REPORT

AECOM	Project	: 60489016
300 Lakeside Drive	Location	: CalAm_Monterey Peninsula Water Supply
Oakland, CA 94612	Level	: II

Sample ID	Lab ID
B-1-0-0.5	297334-001
B-1-3.5-4	297334-002
B-2-0-0.5	297334-003
B-2-3.5-4	297334-004
B-3-0-0.5	297334-005
B-3-3.5-4	297334-006
B-3-6.5-7	297334-007
B-4-0-0.5	297334-008
B-4-3.5-4	297334-009
B-4-6.5-7	297334-010
B-5-0-0.5	297334-011
B-5-3.5-4	297334-012
B-5-6.5-7	297334-013
B-1-GW	297334-014
B-2-GW	297334-015
B-4-GW	297334-016

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

Signature: Will Rice Date: 03/01/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**297334**
Client:	**AECOM**
Project:	**60489016**
Location:	**CalAm_Monterey Peninsula Water Supply**
Request Date:	**02/22/18**
Samples Received:	**02/21/18**

This data package contains sample and QC results for thirteen soil samples and three water samples, requested for the above referenced project on 02/22/18. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Water:
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Soil:
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) Water:
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) Soil:
No analytical problems were encountered.

Pesticides (EPA 8081A):
All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. B-1-0-0.5 (lab # 297334-001), B-2-0-0.5 (lab # 297334-003), and B-3-0-0.5 (lab # 297334-005) were diluted due to the color of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7470A) Water:
Lead was detected at or above the RL in the CCB analyzed 03/01/18 05:27; this analyte was detected in samples at least 10 times the blank level, and affected data was qualified with "b". High response was observed for zinc in the CCV analyzed 03/01/18 06:54; affected data was qualified with "b". High response was observed for zinc in the CCV analyzed 03/01/18 05:20; affected data was qualified with "b". High recoveries were observed for cadmium and copper in the MS for batch 256847; the parent sample was not a project sample, and the BS/BSD were within limits. High RPD was observed for copper in the MS/MSD for batch 256847; the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A) Soil:
High response was observed for zinc in the CCV analyzed 02/27/18 00:10; affected data was qualified with "b". Molybdenum RSD between exposures

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**297334**
Client:	**AECOM**
Project:	**60489016**
Location:	**CalAm_Monterey Peninsula Water Supply**
Request Date:	**02/22/18**
Samples Received:	**02/21/18**

Metals (EPA 6010B and EPA 7471A) Soil:
exceeds limit; affected data was qualified with "b". No other analytical problems were encountered.

pH (EPA 9045D):
No analytical problems were encountered.

Moisture (ASTM D2216-98/CLP):
No analytical problems were encountered.

Enthalpy Analytical LLC
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 297334

Project No: 60489016
Project Name: Castroville
EDD Format: _____ Rpt Level: ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☒ Standard

Sampler: Hunter Snyder
Report To: Suzanne Nase
Company : AECOM
Telephone: 510-874-3196
Email: Suzanne.nase@aecom.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix:	Matrix:	# of Containers	Chemical Preservative: SOBI	CH3OH	HNO_3	NaOH	None	Title 22 Metals (EPA 6010)	TPH-d/TPH-mo (EPA 8015)	VOCs/TPH-g/Gas Ox (EPA 8260)	Pesticides (EPA 8081)	pH (EPA 9045D)	Mositure (ASTM D2216)	TPH-d/TPH-mo with pre/post Silica Gel Cleanup (EPA 8015M/EPA 3630)
	B-1-0-0.5	2.21.18	0940		x			1					x	x			x	x	x	
	B-1-3.5-4	2.21.18	0947		x			6	x	x				x	x	x			x	x
	(16) ~~B-1-6.5-7~~				~~x~~				~~x~~	~~x~~				~~x~~	~~x~~	~~x~~			~~x~~	~~x~~
	B-2-0-0.5	2.21.18	1104		x			1					x	x			x		x	
	B-2-3.5-4	2.21.18	1110		x			6	x	x				x	x	x		x	x	x
	(26) ~~B-2-6.5-7~~				~~x~~				~~x~~	~~x~~				~~x~~	~~x~~	~~x~~			~~x~~	~~x~~
	B-3-0-0.5	2.21.18	1202		x			1					x	x			x		x	
	B-3-3.5-4	2.21.18	1206		x			6	x	x				x	x	x			x	x
	B-3-6.5-7	2.21.18	1213		x			6	x	x				x	x	x		x	x	x
	B-4-0-0.5	2.21.18	1234		x			1					x	x			x	x	x	
	B-4-3.5-4	2.21.18	1237		x			6	x	x				x	x	x			x	x
	B-4-6.5-7	2.21.18	1247		x			6	x	x				x	x	x			x	x

Analytical Request

Notes:

Please also send report to Hunter Snyder

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

Enthalpy Analytical LLC
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 297334

Project No: 60489016
Project Name: Castroville
EDD Format: _____ Rpt Level: ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☒ Standard

Sampler: Hunter Snyder
Report To: Suzanne Nase
Company : AECOM
Telephone: 510-874-3196
Email: Suzanne.nase@aecom.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix:	Matrix:	# of Containers	Chemical Preservative: SOBI	CH3OH	HNO_3	NaOH	None	Analytical Request: Title 22 Metals (EPA 6010)	TPH-d/TPH-mo (EPA 8015)	VOCs/TPH-g/Gas Ox (EPA 8260)	Pesticides (EPA 8081)	pH (EPA 9045D)	Mositure (ASTM D2216)	TPH-d/TPH-mo with pre/post Silica Gel Cleanup (EPA 8015M/EPA 3630)
	B-5-0-0.5	2.21.18	1345		x			1					x	x			x		x	
	B-5-3.5-4	2.21.18	1350		x			6	x	x				x	x	x		x	x	x
	B-5-6.5-7	2.21.18	1355		x			6	x	x				x	x	x			x	x
	B-1-GW	2.21.18	1023	X				9			X			X	X	X				X
	B-2-GW	2.21.18	1120	X				9			X			X	X	X				X
	B-4-GW	2.21.18	1257	X				9			X			X	X	X				X

Notes:

Please also send report to Hunter Snyder

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 297334 Client: AECOM

Date Received: 2/21/18 Project: Castroville

ENTHALPY

Section 2: Samples received in a cooler? ☒ Yes, how many? 2 ☐ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/21/18 By (print) TKY (sign) TKY

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

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

Packing in cooler: (if other, describe) _____

☒ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☒ A ☐ B

Cooler Temp (°C): #1: 2.4, #2: 2.6, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	X		
Were Method 5035 sampling containers present?	X	X	
If YES, what time were they transferred to freezer? 17:39			
Did all bottles arrive unbroken/unopened?	X		
Are there any missing / extra samples?		X	
Are samples in the appropriate containers for indicated tests?	X		
Are sample labels present, in good condition and complete?	X		
Does the container count match the COC?			
Do the sample labels agree with custody papers?	X		
Was sufficient amount of sample sent for tests requested?	X		
Did you change the hold time in LIMS for unpreserved VOAs?			X
Did you change the hold time in LIMS for preserved terracores?			X
X Are bubbles > 6mm absent in VOA samples?		X	
Was the client contacted concerning this sample delivery?		X	
If YES, who was called? _____ By _____ Date: _____			

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

pH strip lot# 80BDH497I, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# 2017011988 added to samples 15,16 on/at 1340 on 2/22/18

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: Sample 14 - 2/6 VOAs arrived containing bubble

sample 16 - 1/4 VOAs arrived containing bubble.

Date Logged in 2-22-18 **By (print)** KP **(sign)** KP

Date Labeled 2/22/18 **By (print)** TKY **(sign)** TKY

Enthalpy Sample Preservation for 297334

Sample	pH: <2	>9	>12	Other
-014a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[ ]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
f	[ ]	[ ]	[ ]	_____
g	[✓]	[ ]	[ ]	_____
h	[ ]	[ ]	[ ]	_____
i	[ ]	[ ]	[ ]	_____
-015a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[ ]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
f	[ ]	[ ]	[ ]	_____
g	[✓]	[ ]	[ ]	_____
h	[ ]	[ ]	[ ]	_____
i	[ ]	[ ]	[ ]	_____
-016a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[ ]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
f	[ ]	[ ]	[ ]	_____
g	[✓]	[ ]	[ ]	_____
h	[ ]	[ ]	[ ]	_____
i	[ ]	[ ]	[ ]	_____

Analyst: TKY
Date: 2/22/18

Page 1 of 1

ENTHALPY ANALYTICAL

Detections Summary for 297334

Results for any subcontracted analyses are not included in this summary.

Client : AECOM
Project : 60489016
Location : CalAm_Monterey Peninsula Water Supply

Client Sample ID : B-1-0-0.5 Laboratory Sample ID : 297334-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
4,4'-DDE	110		19	ug/Kg	Dry	10.00	EPA 8081A	EPA 3550C
4,4'-DDT	130	#	19	ug/Kg	Dry	10.00	EPA 8081A	EPA 3550C
Arsenic	4.7		1.7	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	100		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.59		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	1.3		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	48		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	25		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	51		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.032		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.3		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	58		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	48		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	91		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	13		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD
pH	6.7		1.0	SU	As Recd	1.000	EPA 9045D	METHOD

Client Sample ID : B-1-3.5-4 Laboratory Sample ID : 297334-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Arsenic	5.6		2.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	140		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.70		0.13	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.99		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	56		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	18		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	6.2		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.026		0.021	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.4		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	72		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	52		0.33	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	61		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	26		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-2-0-0.5 Laboratory Sample ID : 297334-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
4,4'-DDE	75		19	ug/Kg	Dry	10.00	EPA 8081A	EPA 3550C
4,4'-DDT	100	#	19	ug/Kg	Dry	10.00	EPA 8081A	EPA 3550C
Arsenic	6.2		1.6	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	110		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.58		0.10	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	1.1		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	49		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	10		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	32		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	22		1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.038		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.3		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	58		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	52		0.26	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	88		1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	13		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : B-2-3.5-4 Laboratory Sample ID : 297334-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	1.3	Y	1.3	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Acetone	20		19	ug/Kg	Dry	0.7519	EPA 8260B	EPA 5035
Arsenic	5.0		1.9	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	120		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.68		0.13	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.83		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	57		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	18		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	6.0		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Molybdenum	1.5		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	72		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	51		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	59	b	1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	22		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD
pH	7.4		1.0	SU	As Recd	1.000	EPA 9045D	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-3-0-0.5 Laboratory Sample ID : 297334-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Dieldrin	27		4.8	ug/Kg	Dry	5.000	EPA 8081A	EPA 3550C
4,4'-DDE	130	C	9.3	ug/Kg	Dry	5.000	EPA 8081A	EPA 3550C
Endrin	13		9.3	ug/Kg	Dry	5.000	EPA 8081A	EPA 3550C
4,4'-DDT	250	#	37	ug/Kg	Dry	20.00	EPA 8081A	EPA 3550C
Arsenic	24		1.6	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	120		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.61		0.11	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	1.1		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	47		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	35		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	12		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.020		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.4		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	60		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	53		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	70	b	1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	11		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : B-3-3.5-4 Laboratory Sample ID : 297334-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2.0	Y	1.3	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Arsenic	8.2		1.8	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	160		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.90		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	1.3		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	71		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	14		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	30		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	9.2		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.037		0.021	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.7		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	94		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	63		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	78	b	1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	24		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-3-6.5-7 Laboratory Sample ID : 297334-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Acetone	25		19	ug/Kg	Dry	0.7576	EPA 8260B	EPA 5035
Arsenic	4.6		1.8	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	120		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.60		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.76		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	53		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	17		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	5.2		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Molybdenum	1.0	b	0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	65		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	47		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	50	b	1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	21		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD
pH	7.9		1.0	SU	As Recd	1.000	EPA 9045D	METHOD

Client Sample ID : B-4-0-0.5 Laboratory Sample ID : 297334-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Arsenic	11		1.6	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	150		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.67		0.11	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.99		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	54		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	23		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	13		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Molybdenum	1.4		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	63		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	52		0.27	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	60	b	1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	14		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD
pH	7.1		1.0	SU	As Recd	1.000	EPA 9045D	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-4-3.5-4 Laboratory Sample ID : 297334-009

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2.7	Y	1.3	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Motor Oil C24-C36	8.8		6.5	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Arsenic	3.6		1.8	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	94		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.53		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.76		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	44		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	8.9		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	11		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	4.1		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Molybdenum	0.94		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	53		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	41		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	43	b	1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	22		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : B-4-6.5-7 Laboratory Sample ID : 297334-010

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Arsenic	4.3		1.8	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	110		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.58		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	1.0		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	47		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	10		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	14		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	4.8		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Molybdenum	0.75		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	56		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	46		0.30	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	46	b	1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	22		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-5-0-0.5 Laboratory Sample ID : 297334-011

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
4,4'-DDE	5.7		1.9	ug/Kg	Dry	1.000	EPA 8081A	EPA 3550C
4,4'-DDT	7.2	#	1.9	ug/Kg	Dry	1.000	EPA 8081A	EPA 3550C
Arsenic	5.3		1.5	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	120		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.66		0.10	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.73		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	44		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	9.4		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	13		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	15		1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.040		0.018	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.0		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	44		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	46		0.25	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	48	b	1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	10		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : B-5-3.5-4 Laboratory Sample ID : 297334-012

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	3.3	Y	1.2	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Motor Oil C24-C36	9.1		6.1	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Acetone	25		18	ug/Kg	Dry	0.7463	EPA 8260B	EPA 5035
Arsenic	4.3		1.8	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	130		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.64		0.12	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.67		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	43		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	13		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	12		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	7.7		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.026		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.1		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	36		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	42		0.31	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	41	b	1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	18		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD
pH	7.5		1.0	SU	As Recd	1.000	EPA 9045D	METHOD

ENTHALPY ANALYTICAL

Client Sample ID : B-5-6.5-7 Laboratory Sample ID : 297334-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2.2	Y	1.3	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Arsenic	4.5		1.9	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Barium	120		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Beryllium	0.67		0.13	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cadmium	0.96		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Chromium	43		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Cobalt	10		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Copper	14		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Lead	6.5		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Mercury	0.039		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.82		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Nickel	42		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Vanadium	45		0.32	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Zinc	46	b	1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	20		1	%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : B-1-GW Laboratory Sample ID : 297334-014

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	56	Y	49	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Arsenic	25		10	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Barium	1,400		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Beryllium	6.1		2.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cadmium	18		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Chromium	120		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cobalt	140		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Copper	87		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Lead	23		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Molybdenum	6.0		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Nickel	350		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Silver	7.6		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Vanadium	180		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Zinc	260	b	20	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A

ENTHALPY ANALYTICAL

Client Sample ID : B-2-GW Laboratory Sample ID : 297334-015

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	50	Y	49	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Arsenic	44		10	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Barium	1,300		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Beryllium	19		2.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cadmium	57		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Chromium	120		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cobalt	220		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Copper	160		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Lead	13		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Mercury	1.4		0.20	ug/L	TOTAL	1.000	EPA 7470A	METHOD
Nickel	940		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Silver	16		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Vanadium	200		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Zinc	390	b	20	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A

Client Sample ID : B-4-GW Laboratory Sample ID : 297334-016

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Arsenic	40		10	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Barium	960		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Beryllium	11		2.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cadmium	55		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Chromium	120		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Cobalt	210		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Copper	190		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Lead	19		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Mercury	0.81		0.20	ug/L	TOTAL	1.000	EPA 7470A	METHOD
Nickel	510		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Silver	14		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Vanadium	220		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Zinc	280	b	20	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A

# = CCV drift outside limits; average CCV drift within limits per method requiremen
C = Presence confirmed, but RPD between columns exceeds 40%
Y = Sample exhibits chromatographic pattern which does not resemble standard
b = See narrative

ENTHALPY ANALYTICAL

Gasoline by GC/FID (5035 Prep)

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256797
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000		

Field ID:	B-1-3.5-4	Moisture:	26%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-002		

Analyte	Result	RL
Gasoline C7-C12	ND	0.24

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

Field ID:	B-2-3.5-4	Moisture:	22%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-004		

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

Field ID:	B-3-3.5-4	Moisture:	24%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-006		

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	65-136

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Gasoline by GC/FID (5035 Prep)

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256797
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000		

Field ID:	B-3-6.5-7	Moisture:	21%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-007		

Analyte	Result	RL
Gasoline C7-C12	ND	0.18

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	65-136

Field ID:	B-4-3.5-4	Moisture:	22%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-009		

Analyte	Result	RL
Gasoline C7-C12	ND	0.22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	65-136

Field ID:	B-4-6.5-7	Moisture:	22%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-010		

Analyte	Result	RL
Gasoline C7-C12	ND	0.22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	87	65-136

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Gasoline by GC/FID (5035 Prep)

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256797
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000		

Field ID:	B-5-3.5-4	Moisture:	18%
Type:	SAMPLE	Analyzed:	02/26/18
Lab ID:	297334-012		

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	65-136

Field ID:	B-5-6.5-7	Moisture:	20%
Type:	SAMPLE	Analyzed:	02/27/18
Lab ID:	297334-013		

Analyte	Result	RL
Gasoline C7-C12	ND	0.18

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	65-136

Type:	BLANK	Analyzed:	02/26/18
Lab ID:	QC921293		

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-136

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC921288	Batch#:	256797
Matrix:	Soil	Analyzed:	02/26/18
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.048	105	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	65-136

ENTHALPY ANALYTICAL

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	297415-001	Batch#:	256797
Matrix:	Soil	Sampled:	02/22/18
Units:	mg/Kg	Received:	02/26/18
Basis:	as received	Analyzed:	02/27/18

Type: MS Lab ID: QC921291

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1041	10.00	6.600	65	52-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	65-136

Type: MSD Lab ID: QC921292

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.615	6.138	63	52-120	3	25

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	65-136

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3520C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	02/21/18
Units:	ug/L	Received:	02/21/18
Diln Fac:	1.000	Prepared:	02/26/18
Batch#:	256780	Analyzed:	02/28/18

Field ID: B-1-GW
Type: SAMPLE
Lab ID: 297334-014
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	56 Y	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	ND	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	95	51-134
o-Terphenyl (SGCU)	100	51-134

Field ID: B-2-GW
Type: SAMPLE
Lab ID: 297334-015
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	50 Y	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	ND	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	91	51-134
o-Terphenyl (SGCU)	93	51-134

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3520C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	02/21/18
Units:	ug/L	Received:	02/21/18
Diln Fac:	1.000	Prepared:	02/26/18
Batch#:	256780	Analyzed:	02/28/18

Field ID: B-4-GW
Type: SAMPLE
Lab ID: 297334-016
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	ND	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	98	51-134
o-Terphenyl (SGCU)	102	51-134

Type: BLANK
Lab ID: QC921230
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Diesel C10-C24 (SGCU)	ND	50
Motor Oil C24-C36	ND	300
Motor Oil C24-C36 (SGCU)	ND	300

Surrogate	%REC	Limits
o-Terphenyl	93	51-134
o-Terphenyl (SGCU)	96	51-134

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3520C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	256780
Units:	ug/L	Prepared:	02/26/18
Diln Fac:	1.000	Analyzed:	02/28/18

Type: BS
Lab ID: QC921231
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,171	87	50-123
Diesel C10-C24 (SGCU)	2,500	1,757	70	50-123

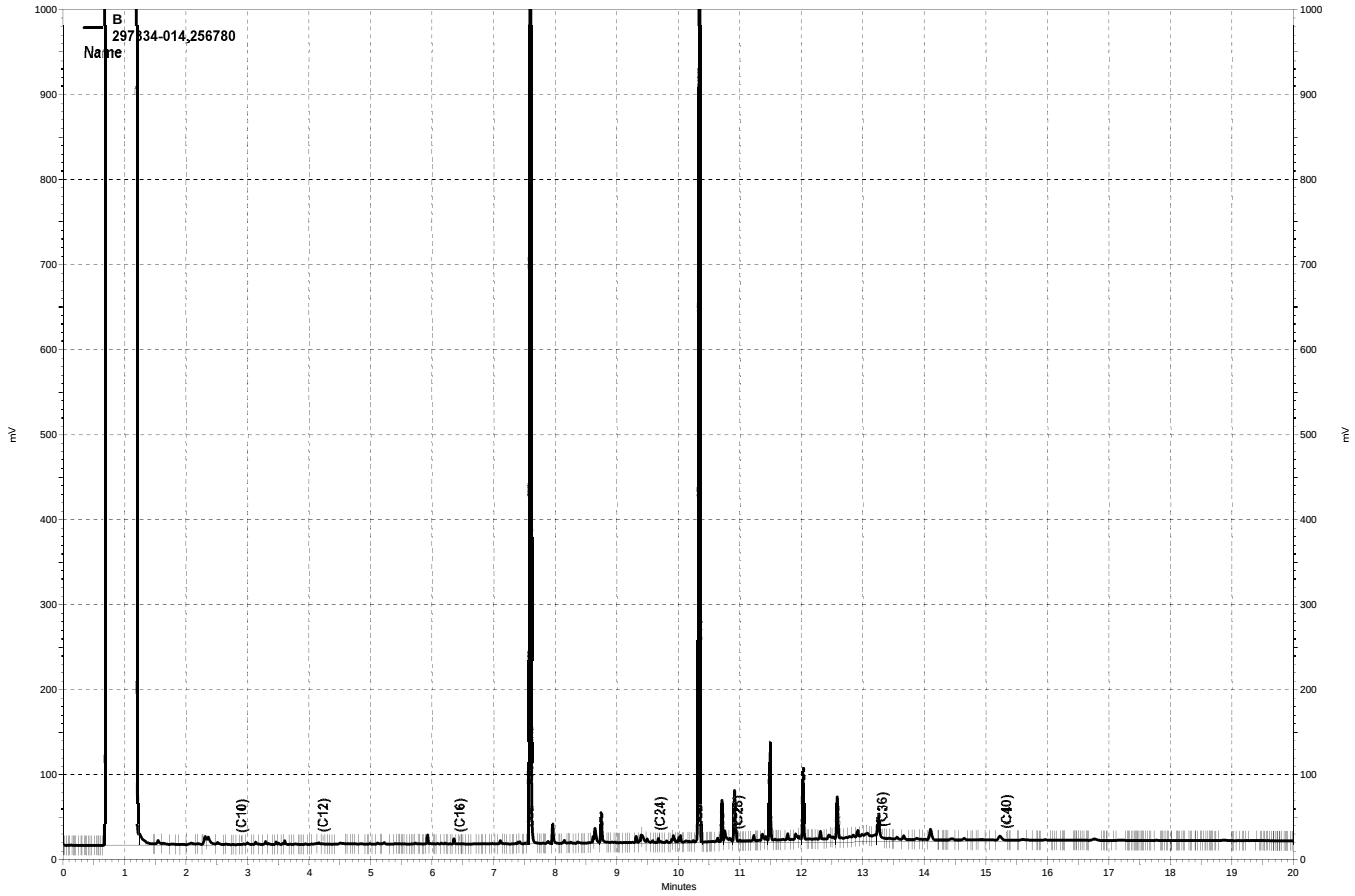
Surrogate	%REC	Limits
o-Terphenyl	100	51-134
o-Terphenyl (SGCU)	84	51-134

Type: BSD
Lab ID: QC921232
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,351	94	50-123	8	34
Diesel C10-C24 (SGCU)	2,500	1,955	78	50-123	11	34

Surrogate	%REC	Limits
o-Terphenyl	105	51-134
o-Terphenyl (SGCU)	91	51-134

RPD= Relative Percent Difference
SGCU= Silica gel cleanup



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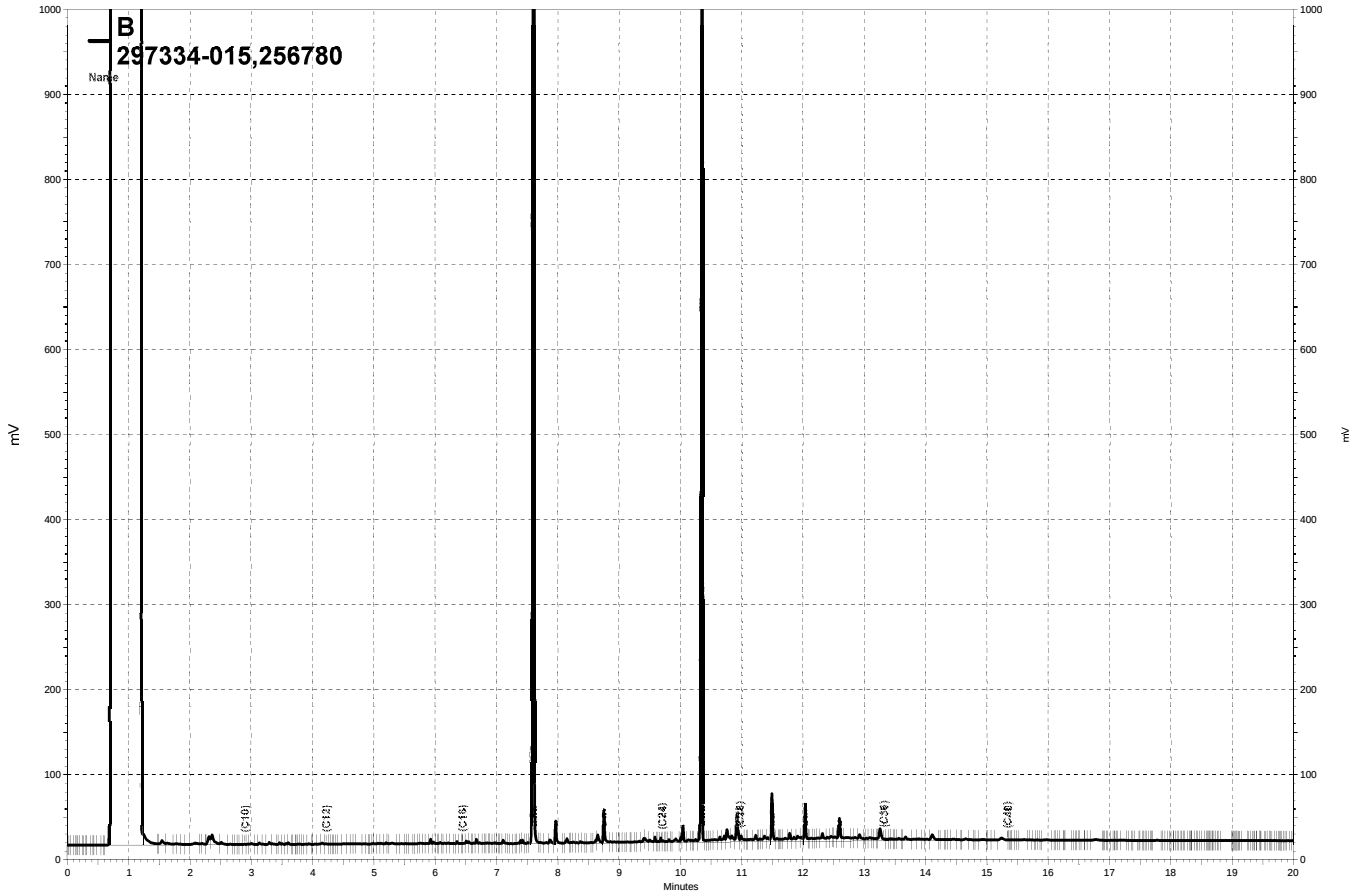

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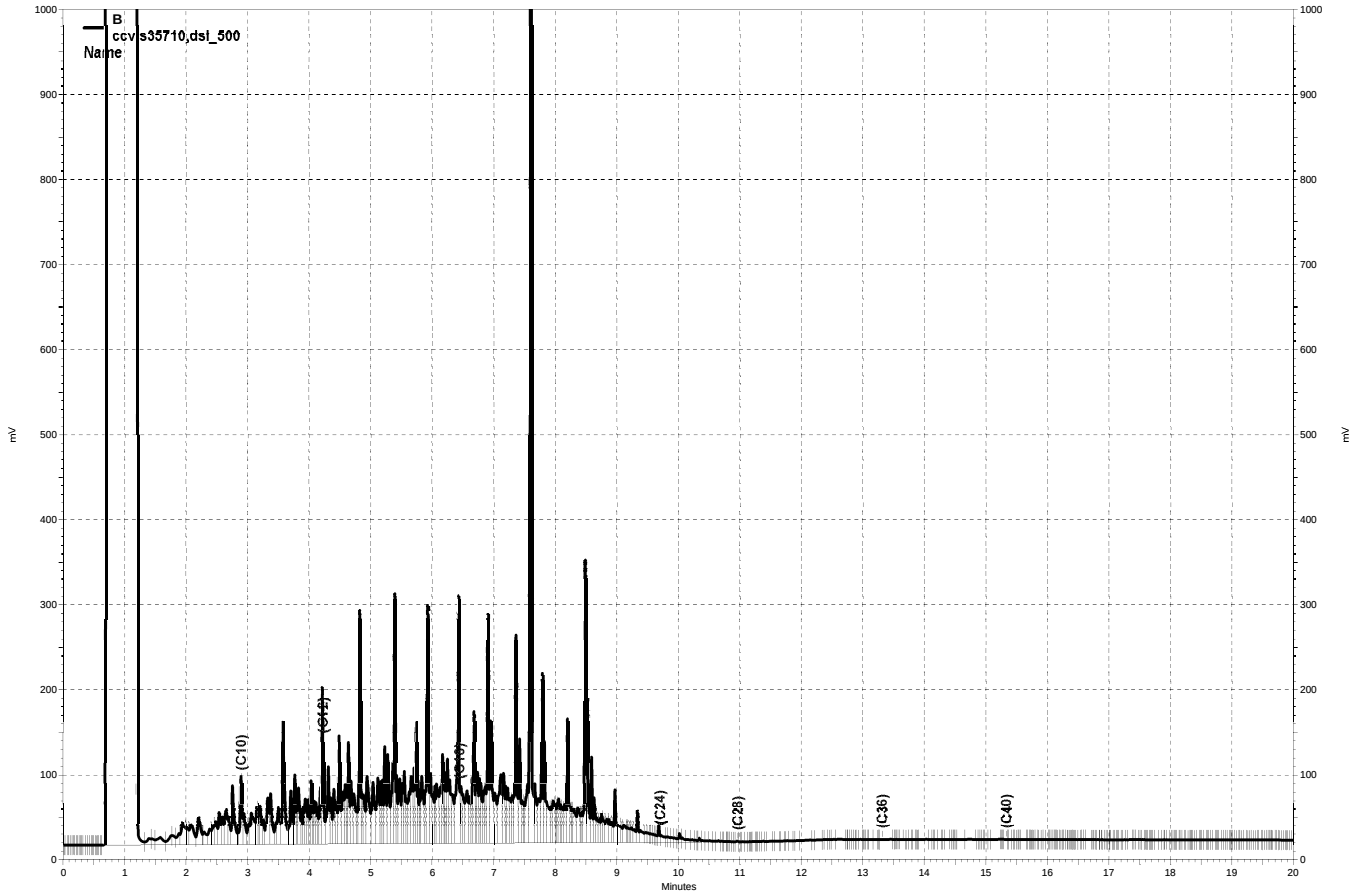

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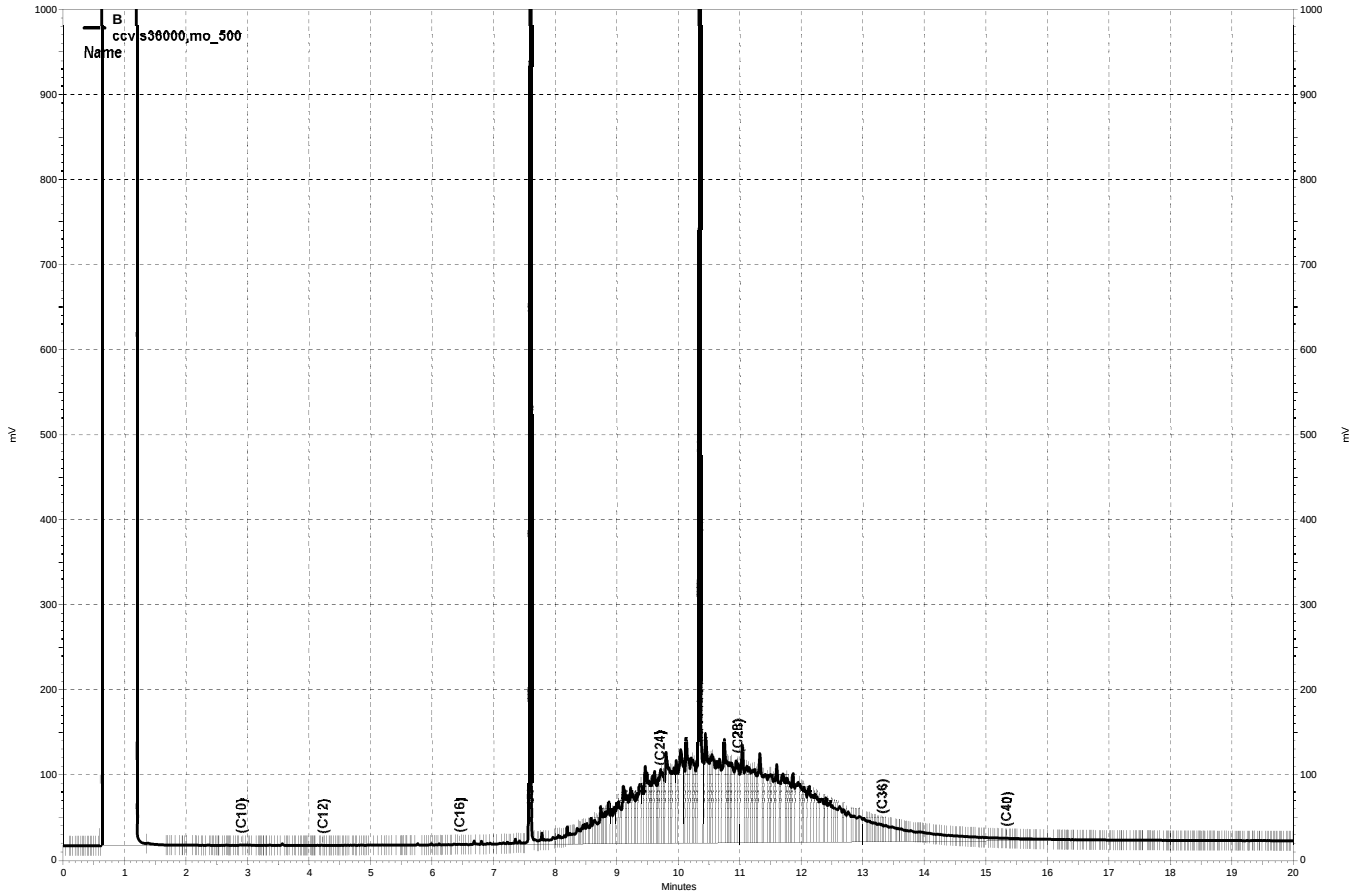

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ENTHALPY ANALYTICAL

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256735
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000	Prepared:	02/23/18

Field ID:	B-1-3.5-4	Moisture:	26%
Type:	SAMPLE	Analyzed:	02/27/18
Lab ID:	297334-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.4
Diesel C10-C24 (SGCU)	ND	1.4
Motor Oil C24-C36	ND	6.8
Motor Oil C24-C36 (SGCU)	ND	6.8

Surrogate	%REC	Limits
o-Terphenyl	103	55-133
o-Terphenyl (SGCU)	95	55-133

Field ID:	B-2-3.5-4	Moisture:	22%
Type:	SAMPLE	Analyzed:	02/27/18
Lab ID:	297334-004	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1.3 Y	1.3
Diesel C10-C24 (SGCU)	ND	1.3
Motor Oil C24-C36	ND	6.4
Motor Oil C24-C36 (SGCU)	ND	6.4

Surrogate	%REC	Limits
o-Terphenyl	105	55-133
o-Terphenyl (SGCU)	102	55-133

Field ID:	B-3-3.5-4	Moisture:	24%
Type:	SAMPLE	Analyzed:	02/27/18
Lab ID:	297334-006	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	2.0 Y	1.3
Diesel C10-C24 (SGCU)	ND	1.3
Motor Oil C24-C36	ND	6.6
Motor Oil C24-C36 (SGCU)	ND	6.6

Surrogate	%REC	Limits
o-Terphenyl	110	55-133
o-Terphenyl (SGCU)	108	55-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256735
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000	Prepared:	02/23/18

Field ID:	B-3-6.5-7	Moisture:	21%
Type:	SAMPLE	Analyzed:	02/27/18
Lab ID:	297334-007	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.3
Diesel C10-C24 (SGCU)	ND	1.3
Motor Oil C24-C36	ND	6.3
Motor Oil C24-C36 (SGCU)	ND	6.3

Surrogate	%REC	Limits
o-Terphenyl	109	55-133
o-Terphenyl (SGCU)	115	55-133

Field ID:	B-4-3.5-4	Moisture:	22%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	297334-009		

Analyte	Result	RL	Analyzed
Diesel C10-C24	2.7 Y	1.3	02/26/18
Diesel C10-C24 (SGCU)	ND	1.3	02/27/18
Motor Oil C24-C36	8.8	6.5	02/26/18
Motor Oil C24-C36 (SGCU)	ND	6.5	02/27/18

Surrogate	%REC	Limits	Analyzed
o-Terphenyl	99	55-133	02/26/18
o-Terphenyl (SGCU)	84	55-133	02/27/18

Field ID:	B-4-6.5-7	Moisture:	22%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	297334-010		

Analyte	Result	RL	Analyzed
Diesel C10-C24	ND	1.3	02/26/18
Diesel C10-C24 (SGCU)	ND	1.3	02/27/18
Motor Oil C24-C36	ND	6.4	02/26/18
Motor Oil C24-C36 (SGCU)	ND	6.4	02/27/18

Surrogate	%REC	Limits	Analyzed
o-Terphenyl	108	55-133	02/26/18
o-Terphenyl (SGCU)	88	55-133	02/27/18

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	256735
Units:	mg/Kg	Sampled:	02/21/18
Basis:	dry	Received:	02/21/18
Diln Fac:	1.000	Prepared:	02/23/18

Field ID:	B-5-3.5-4	Moisture:	18%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	297334-012		

Analyte	Result	RL	Analyzed
Diesel C10-C24	3.3 Y	1.2	02/26/18
Diesel C10-C24 (SGCU)	ND	1.2	02/27/18
Motor Oil C24-C36	9.1	6.1	02/26/18
Motor Oil C24-C36 (SGCU)	ND	6.1	02/27/18

Surrogate	%REC	Limits	Analyzed
o-Terphenyl	107	55-133	02/26/18
o-Terphenyl (SGCU)	90	55-133	02/27/18

Field ID:	B-5-6.5-7	Moisture:	20%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	297334-013		

Analyte	Result	RL	Analyzed
Diesel C10-C24	2.2 Y	1.3	02/26/18
Diesel C10-C24 (SGCU)	ND	1.3	02/27/18
Motor Oil C24-C36	ND	6.3	02/26/18
Motor Oil C24-C36 (SGCU)	ND	6.3	02/27/18

Surrogate	%REC	Limits	Analyzed
o-Terphenyl	106	55-133	02/26/18
o-Terphenyl (SGCU)	103	55-133	02/27/18

Type:	BLANK	Analyzed:	02/26/18
Lab ID:	QC921050	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36	ND	5.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	107	55-133
o-Terphenyl (SGCU)	75	55-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC921051	Batch#:	256735
Matrix:	Soil	Prepared:	02/23/18
Units:	mg/Kg	Analyzed:	02/26/18

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.19	47.49	95	51-137
Diesel C10-C24 (SGCU)	50.19	39.08	78	51-137

Surrogate	%REC	Limits
o-Terphenyl	108	55-133
o-Terphenyl (SGCU)	85	55-133

SGCU= Silica gel cleanup

ENTHALPY ANALYTICAL

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	256735
MSS Lab ID:	297344-001	Sampled:	02/15/18
Matrix:	Soil	Received:	02/22/18
Units:	mg/Kg	Prepared:	02/23/18
Basis:	as received	Analyzed:	02/26/18
Diln Fac:	2.000		

Type: MS Lab ID: QC921052

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	14.80	49.68	60.21	91	36-143

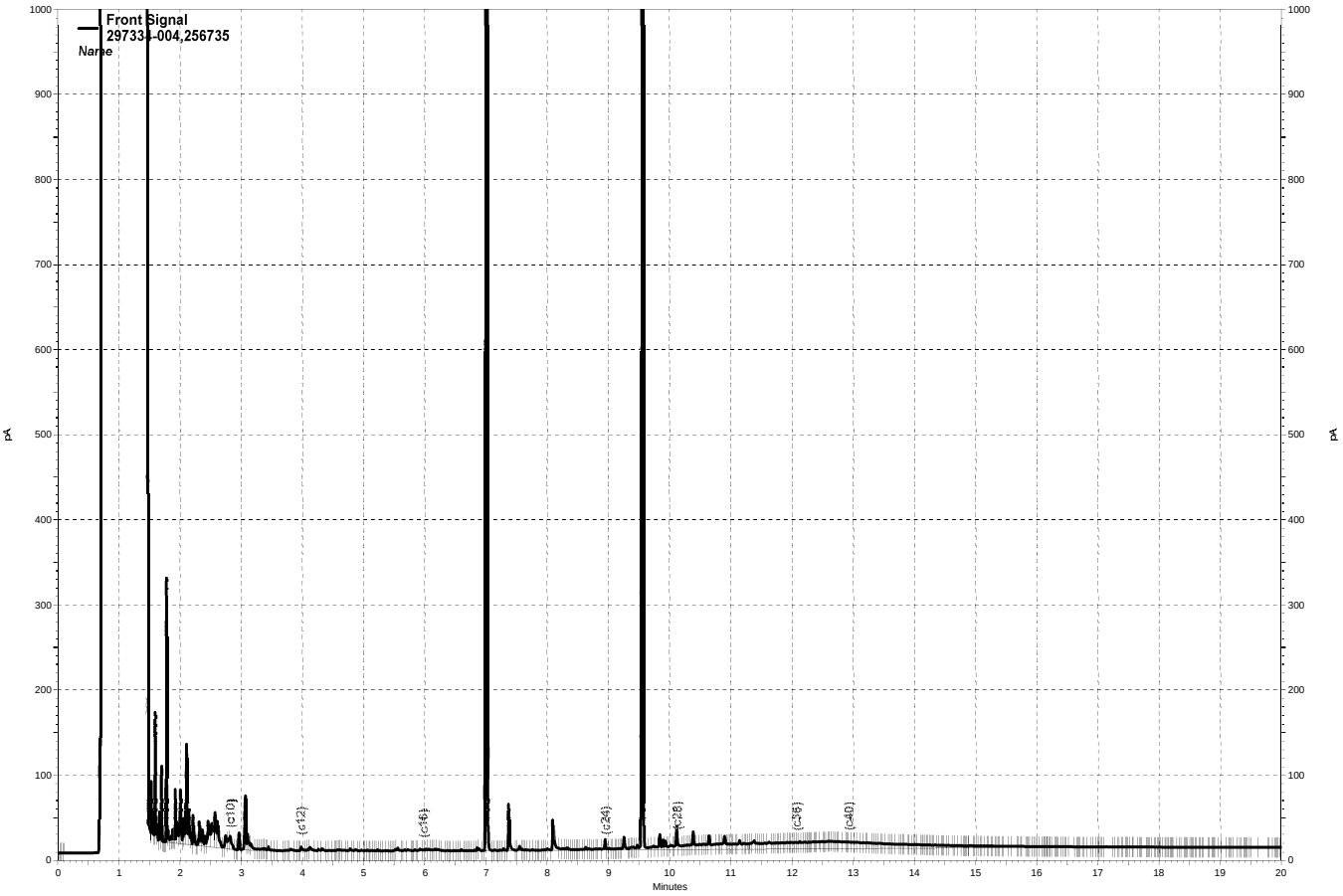
Surrogate	%REC	Limits
o-Terphenyl	97	55-133

Type: MSD Lab ID: QC921053

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.09	57.35	85	36-143	5	55

Surrogate	%REC	Limits
o-Terphenyl	90	55-133

RPD= Relative Percent Difference



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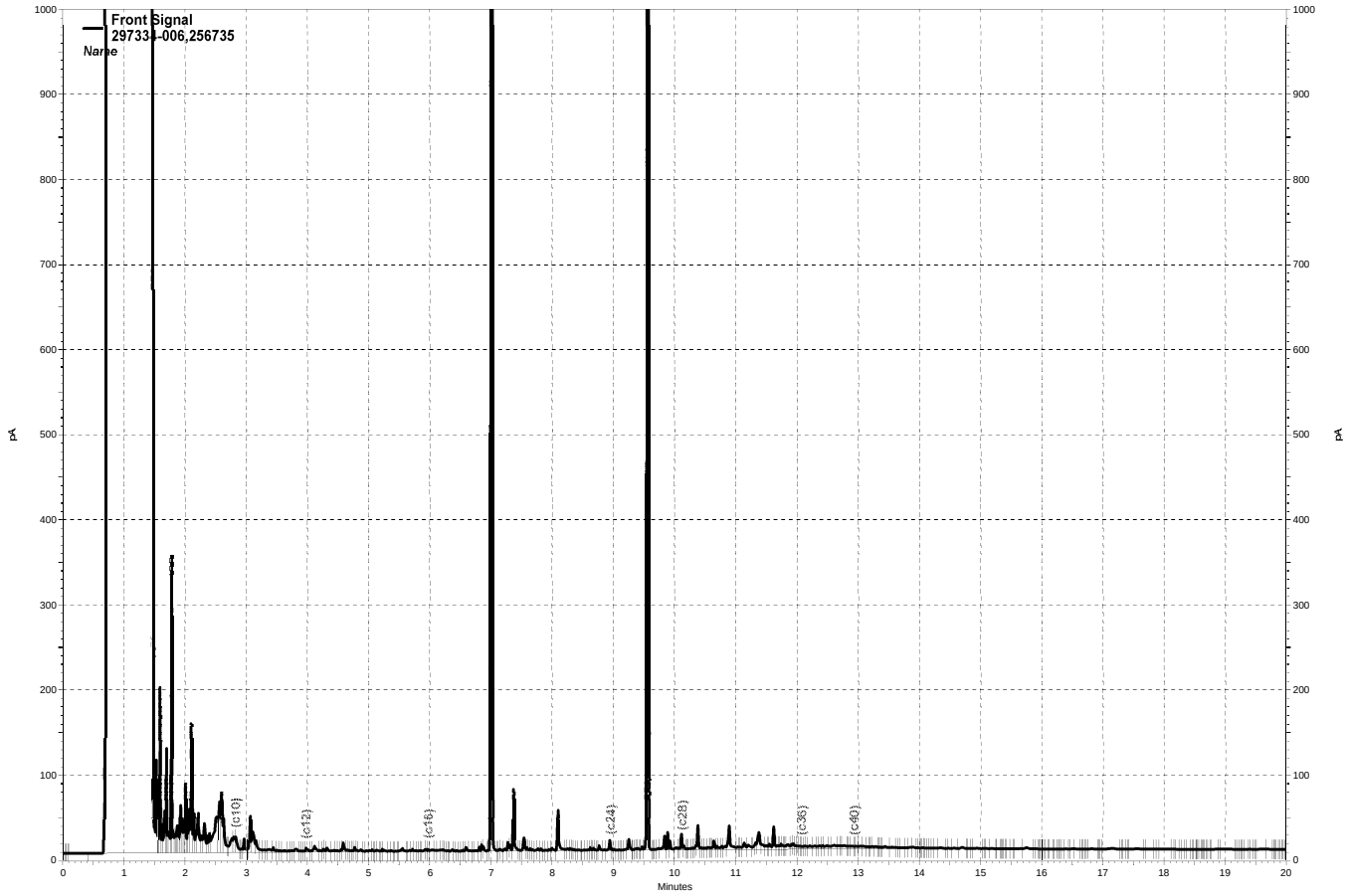

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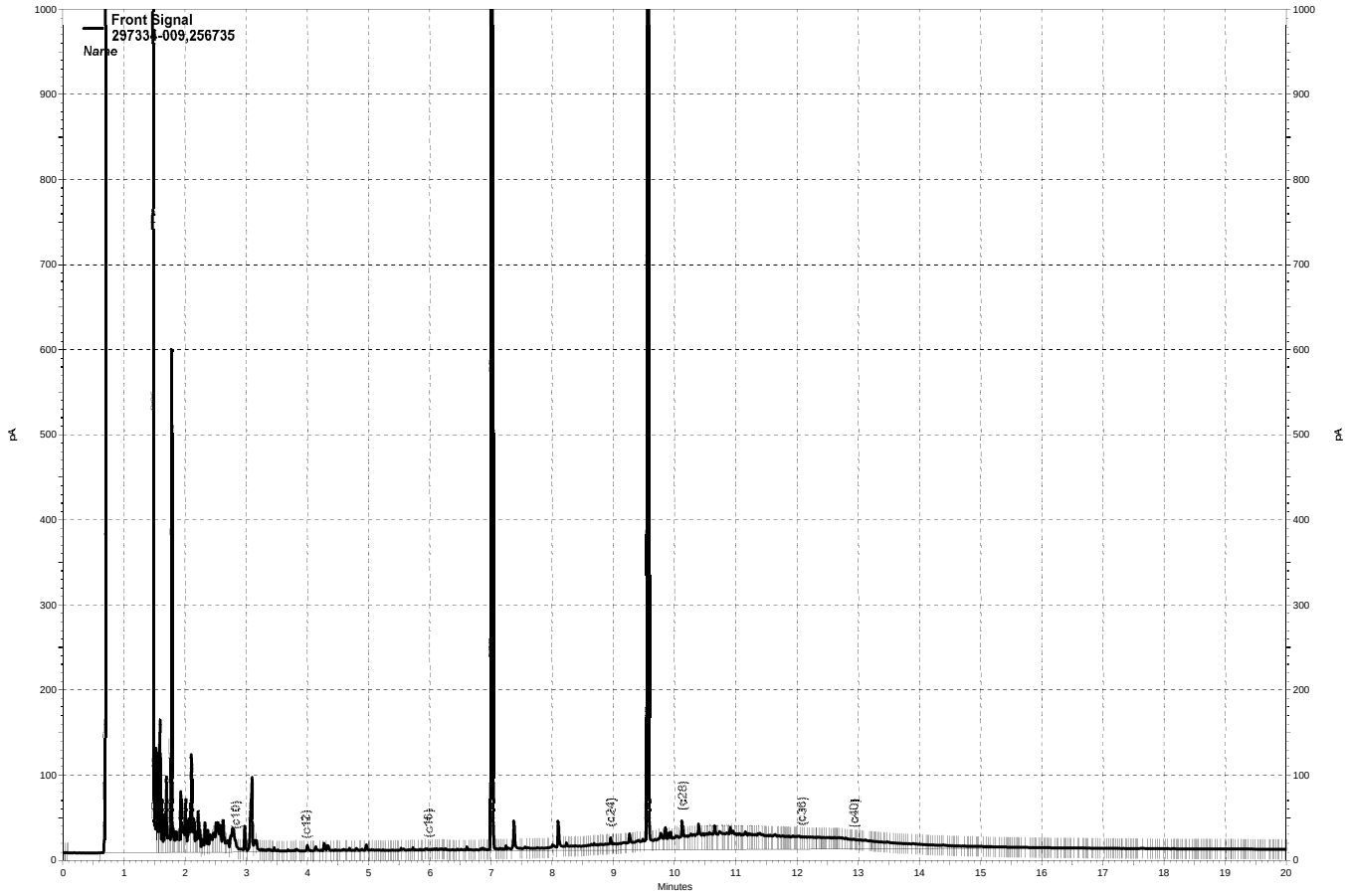

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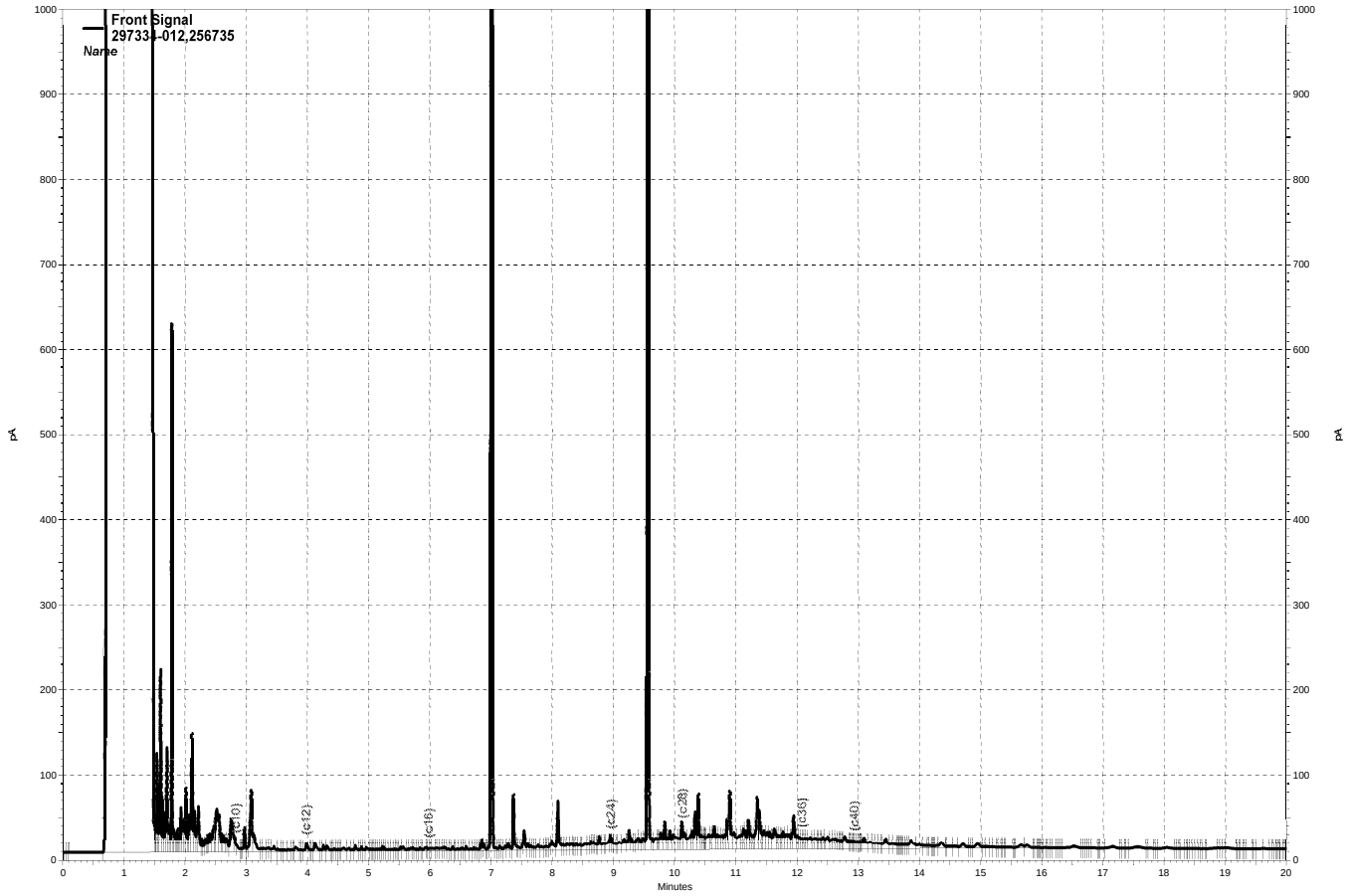

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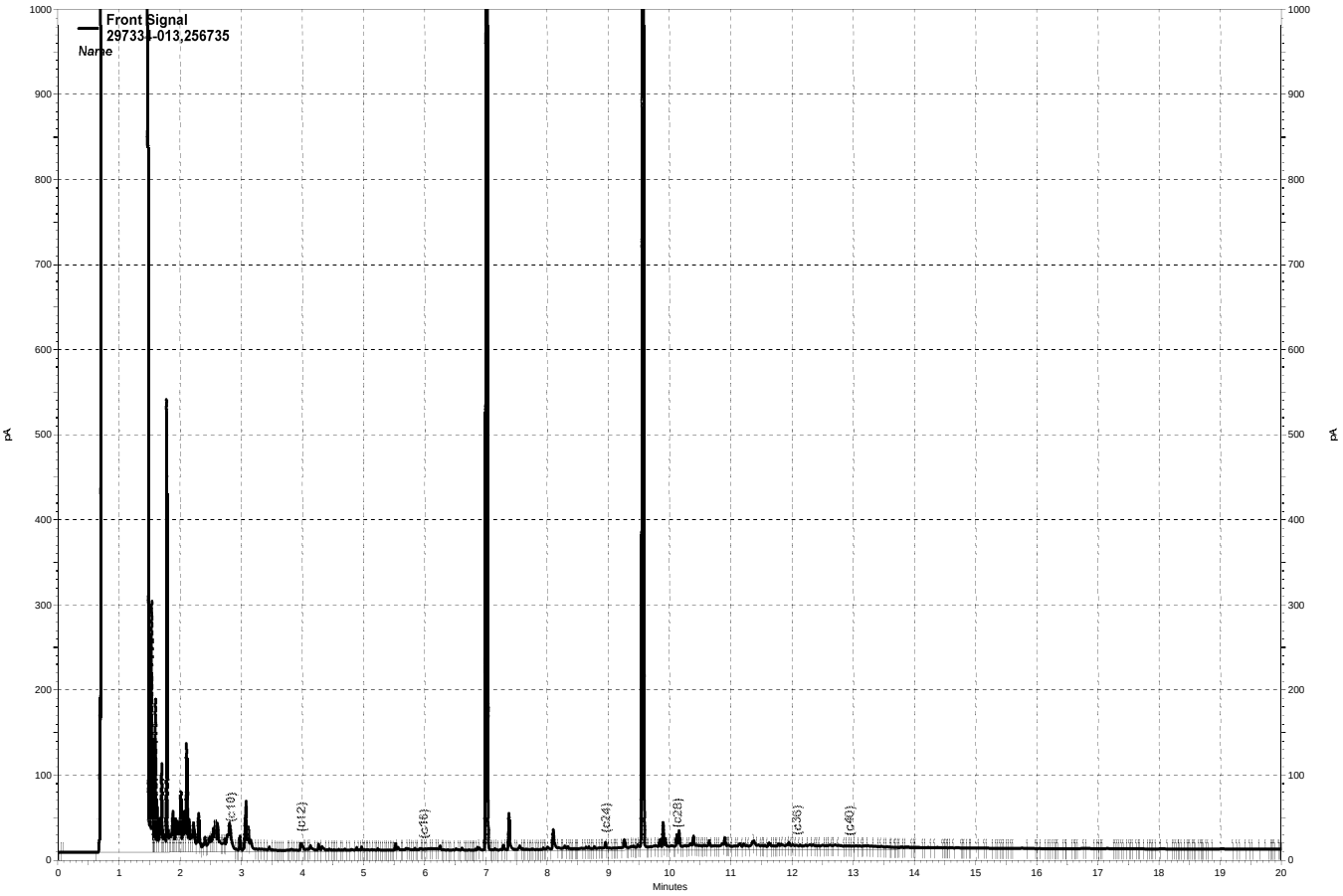

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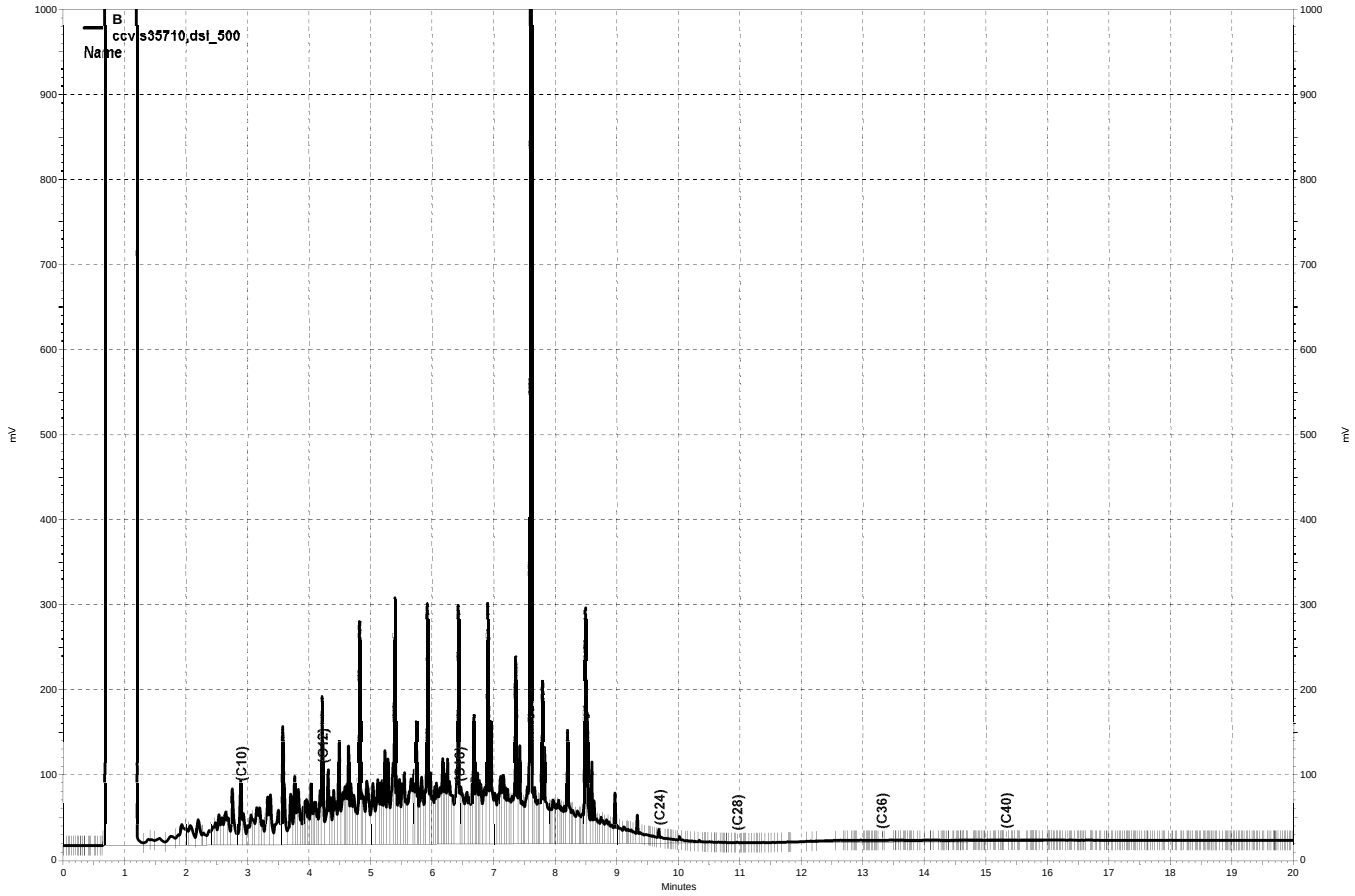

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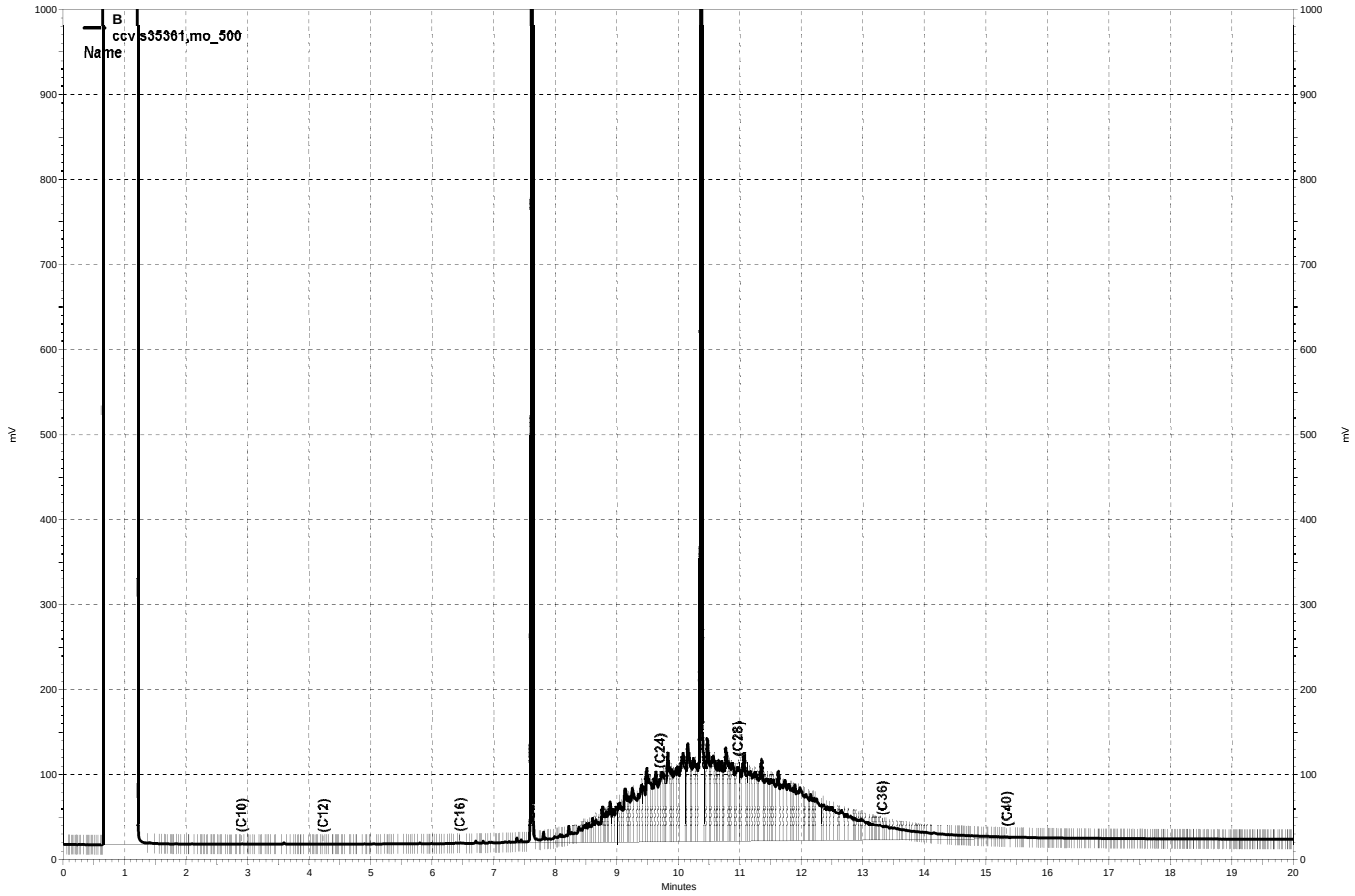

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ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-1-GW	Batch#:	256702
Lab ID:	297334-014	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/22/18
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-1-GW	Batch#:	256702
Lab ID:	297334-014	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/22/18
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	114	72-135
Toluene-d8	105	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-2-GW	Batch#:	256702
Lab ID:	297334-015	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/23/18
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-2-GW	Batch#:	256702
Lab ID:	297334-015	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/23/18
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	111	72-135
Toluene-d8	106	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-GW	Batch#:	256702
Lab ID:	297334-016	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/23/18
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-GW	Batch#:	256702
Lab ID:	297334-016	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L	Analyzed:	02/23/18
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	112	72-135
Toluene-d8	104	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Batch#:	256702

Type: BS Analyzed: 02/22/18
Lab ID: QC920927

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	61.67	99	45-151
Isopropyl Ether (DIPE)	12.50	12.30	98	60-124
Ethyl tert-Butyl Ether (ETBE)	12.50	11.87	95	70-121
Methyl tert-Amyl Ether (TAME)	12.50	11.62	93	72-120
1,1-Dichloroethene	12.50	11.75	94	72-126
Benzene	12.50	12.21	98	80-124
Trichloroethene	12.50	10.95	88	78-120
Toluene	12.50	12.08	97	80-120
Chlorobenzene	12.50	11.90	95	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	107	72-135
Toluene-d8	103	80-120
Bromofluorobenzene	105	80-120

Type: BSD Analyzed: 02/23/18
Lab ID: QC920928

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	53.15	85	45-151	15	33
Isopropyl Ether (DIPE)	12.50	12.93	103	60-124	5	20
Ethyl tert-Butyl Ether (ETBE)	12.50	12.00	96	70-121	1	20
Methyl tert-Amyl Ether (TAME)	12.50	11.38	91	72-120	2	20
1,1-Dichloroethene	12.50	12.13	97	72-126	3	20
Benzene	12.50	12.27	98	80-124	0	20
Trichloroethene	12.50	11.12	89	78-120	2	20
Toluene	12.50	12.06	96	80-120	0	20
Chlorobenzene	12.50	11.53	92	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	110	72-135
Toluene-d8	105	80-120
Bromofluorobenzene	106	80-120

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	256702
Units:	ug/L	Analyzed:	02/22/18
Diln Fac:	1.000		

Type: BS Lab ID: QC920929

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	994.1	99	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	110	72-135
Toluene-d8	103	80-120
Bromofluorobenzene	105	80-120

Type: BSD Lab ID: QC920930

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,026	103	70-130	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	116	72-135
Toluene-d8	104	80-120
Bromofluorobenzene	106	80-120

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920931	Batch#:	256702
Matrix:	Water	Analyzed:	02/22/18
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920931	Batch#:	256702
Matrix:	Water	Analyzed:	02/22/18
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	117	72-135
Toluene-d8	106	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-1-3.5-4	Diln Fac:	0.9141
Lab ID:	297334-002	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 26%

Analyte	Result	RL
Freon 12	ND	12
tert-Butyl Alcohol (TBA)	ND	120
Chloromethane	ND	12
Isopropyl Ether (DIPE)	ND	6.2
Vinyl Chloride	ND	12
Bromomethane	ND	12
Ethyl tert-Butyl Ether (ETBE)	ND	6.2
Chloroethane	ND	12
Methyl tert-Amyl Ether (TAME)	ND	6.2
Trichlorofluoromethane	ND	6.2
Acetone	ND	25
Freon 113	ND	6.2
1,1-Dichloroethene	ND	6.2
Methylene Chloride	ND	25
Carbon Disulfide	ND	6.2
MTBE	ND	6.2
trans-1,2-Dichloroethene	ND	6.2
Vinyl Acetate	ND	62
1,1-Dichloroethane	ND	6.2
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	6.2
2,2-Dichloropropane	ND	6.2
Chloroform	ND	6.2
Bromochloromethane	ND	6.2
1,1,1-Trichloroethane	ND	6.2
1,1-Dichloropropene	ND	6.2
Carbon Tetrachloride	ND	6.2
1,2-Dichloroethane	ND	6.2
Benzene	ND	6.2
Trichloroethene	ND	6.2
1,2-Dichloropropane	ND	6.2
Bromodichloromethane	ND	6.2
Dibromomethane	ND	6.2
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	6.2
Toluene	ND	6.2
trans-1,3-Dichloropropene	ND	6.2
1,1,2-Trichloroethane	ND	6.2
2-Hexanone	ND	12
1,3-Dichloropropane	ND	6.2
Tetrachloroethene	ND	6.2
Dibromochloromethane	ND	6.2
1,2-Dibromoethane	ND	6.2
Chlorobenzene	ND	6.2
1,1,1,2-Tetrachloroethane	ND	6.2
Ethylbenzene	ND	6.2
m,p-Xylenes	ND	6.2
o-Xylene	ND	6.2
Styrene	ND	6.2
Bromoform	ND	6.2
Isopropylbenzene	ND	6.2
1,1,2,2-Tetrachloroethane	ND	6.2

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-1-3.5-4	Diln Fac:	0.9141
Lab ID:	297334-002	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	6.2
Propylbenzene	ND	6.2
Bromobenzene	ND	6.2
1,3,5-Trimethylbenzene	ND	6.2
2-Chlorotoluene	ND	6.2
4-Chlorotoluene	ND	6.2
tert-Butylbenzene	ND	6.2
1,2,4-Trimethylbenzene	ND	6.2
sec-Butylbenzene	ND	6.2
para-Isopropyl Toluene	ND	6.2
1,3-Dichlorobenzene	ND	6.2
1,4-Dichlorobenzene	ND	6.2
n-Butylbenzene	ND	6.2
1,2-Dichlorobenzene	ND	6.2
1,2-Dibromo-3-Chloropropane	ND	6.2
1,2,4-Trichlorobenzene	ND	6.2
Hexachlorobutadiene	ND	6.2
Naphthalene	ND	6.2
1,2,3-Trichlorobenzene	ND	6.2

Surrogate	%REC	Limits
Dibromofluoromethane	108	76-132
1,2-Dichloroethane-d4	122	74-149
Toluene-d8	95	80-120
Bromofluorobenzene	105	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-2-3.5-4	Diln Fac:	0.7519
Lab ID:	297334-004	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 22%

Analyte	Result	RL
Freon 12	ND	9.6
tert-Butyl Alcohol (TBA)	ND	96
Chloromethane	ND	9.6
Isopropyl Ether (DIPE)	ND	4.8
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Ethyl tert-Butyl Ether (ETBE)	ND	4.8
Chloroethane	ND	9.6
Methyl tert-Amyl Ether (TAME)	ND	4.8
Trichlorofluoromethane	ND	4.8
Acetone	20	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-2-3.5-4	Diln Fac:	0.7519
Lab ID:	297334-004	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	110	76-132
1,2-Dichloroethane-d4	124	74-149
Toluene-d8	97	80-120
Bromofluorobenzene	108	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-3-3.5-4	Diln Fac:	0.8929
Lab ID:	297334-006	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 24%

Analyte	Result	RL
Freon 12	ND	12
tert-Butyl Alcohol (TBA)	ND	120
Chloromethane	ND	12
Isopropyl Ether (DIPE)	ND	5.9
Vinyl Chloride	ND	12
Bromomethane	ND	12
Ethyl tert-Butyl Ether (ETBE)	ND	5.9
Chloroethane	ND	12
Methyl tert-Amyl Ether (TAME)	ND	5.9
Trichlorofluoromethane	ND	5.9
Acetone	ND	23
Freon 113	ND	5.9
1,1-Dichloroethene	ND	5.9
Methylene Chloride	ND	23
Carbon Disulfide	ND	5.9
MTBE	ND	5.9
trans-1,2-Dichloroethene	ND	5.9
Vinyl Acetate	ND	59
1,1-Dichloroethane	ND	5.9
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	5.9
2,2-Dichloropropane	ND	5.9
Chloroform	ND	5.9
Bromochloromethane	ND	5.9
1,1,1-Trichloroethane	ND	5.9
1,1-Dichloropropene	ND	5.9
Carbon Tetrachloride	ND	5.9
1,2-Dichloroethane	ND	5.9
Benzene	ND	5.9
Trichloroethene	ND	5.9
1,2-Dichloropropane	ND	5.9
Bromodichloromethane	ND	5.9
Dibromomethane	ND	5.9
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	5.9
Toluene	ND	5.9
trans-1,3-Dichloropropene	ND	5.9
1,1,2-Trichloroethane	ND	5.9
2-Hexanone	ND	12
1,3-Dichloropropane	ND	5.9
Tetrachloroethene	ND	5.9
Dibromochloromethane	ND	5.9
1,2-Dibromoethane	ND	5.9
Chlorobenzene	ND	5.9
1,1,1,2-Tetrachloroethane	ND	5.9
Ethylbenzene	ND	5.9
m,p-Xylenes	ND	5.9
o-Xylene	ND	5.9
Styrene	ND	5.9
Bromoform	ND	5.9
Isopropylbenzene	ND	5.9
1,1,2,2-Tetrachloroethane	ND	5.9

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-3-3.5-4	Diln Fac:	0.8929
Lab ID:	297334-006	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	5.9
Propylbenzene	ND	5.9
Bromobenzene	ND	5.9
1,3,5-Trimethylbenzene	ND	5.9
2-Chlorotoluene	ND	5.9
4-Chlorotoluene	ND	5.9
tert-Butylbenzene	ND	5.9
1,2,4-Trimethylbenzene	ND	5.9
sec-Butylbenzene	ND	5.9
para-Isopropyl Toluene	ND	5.9
1,3-Dichlorobenzene	ND	5.9
1,4-Dichlorobenzene	ND	5.9
n-Butylbenzene	ND	5.9
1,2-Dichlorobenzene	ND	5.9
1,2-Dibromo-3-Chloropropane	ND	5.9
1,2,4-Trichlorobenzene	ND	5.9
Hexachlorobutadiene	ND	5.9
Naphthalene	ND	5.9
1,2,3-Trichlorobenzene	ND	5.9

Surrogate	%REC	Limits
Dibromofluoromethane	113	76-132
1,2-Dichloroethane-d4	126	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	111	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-3-6.5-7	Diln Fac:	0.7576
Lab ID:	297334-007	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 21%

Analyte	Result	RL
Freon 12	ND	9.6
tert-Butyl Alcohol (TBA)	ND	96
Chloromethane	ND	9.6
Isopropyl Ether (DIPE)	ND	4.8
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Ethyl tert-Butyl Ether (ETBE)	ND	4.8
Chloroethane	ND	9.6
Methyl tert-Amyl Ether (TAME)	ND	4.8
Trichlorofluoromethane	ND	4.8
Acetone	25	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-3-6.5-7	Diln Fac:	0.7576
Lab ID:	297334-007	Batch#:	256711
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	112	76-132
1,2-Dichloroethane-d4	126	74-149
Toluene-d8	97	80-120
Bromofluorobenzene	107	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-3.5-4	Diln Fac:	0.7924
Lab ID:	297334-009	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 22%

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.1
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.1
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.1
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
MTBE	ND	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-3.5-4	Diln Fac:	0.7924
Lab ID:	297334-009	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	%REC	Limits
Dibromofluoromethane	105	76-132
1,2-Dichloroethane-d4	110	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-6.5-7	Diln Fac:	0.7899
Lab ID:	297334-010	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 22%

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.1
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.1
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.1
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
MTBE	ND	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1
Dibromochloromethane	ND	5.1
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-4-6.5-7	Diln Fac:	0.7899
Lab ID:	297334-010	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	%REC	Limits
Dibromofluoromethane	104	76-132
1,2-Dichloroethane-d4	110	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	112	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-5-3.5-4	Diln Fac:	0.7463
Lab ID:	297334-012	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 18%

Analyte	Result	RL
Freon 12	ND	9.1
tert-Butyl Alcohol (TBA)	ND	91
Chloromethane	ND	9.1
Isopropyl Ether (DIPE)	ND	4.6
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Ethyl tert-Butyl Ether (ETBE)	ND	4.6
Chloroethane	ND	9.1
Methyl tert-Amyl Ether (TAME)	ND	4.6
Trichlorofluoromethane	ND	4.6
Acetone	25	18
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-5-3.5-4	Diln Fac:	0.7463
Lab ID:	297334-012	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	108	76-132
1,2-Dichloroethane-d4	113	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	114	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-5-6.5-7	Diln Fac:	0.7246
Lab ID:	297334-013	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Moisture: 20%

Analyte	Result	RL
Freon 12	ND	9.1
tert-Butyl Alcohol (TBA)	ND	91
Chloromethane	ND	9.1
Isopropyl Ether (DIPE)	ND	4.5
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
Chloroethane	ND	9.1
Methyl tert-Amyl Ether (TAME)	ND	4.5
Trichlorofluoromethane	ND	4.5
Acetone	ND	18
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5
Dibromochloromethane	ND	4.5
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	B-5-6.5-7	Diln Fac:	0.7246
Lab ID:	297334-013	Batch#:	256719
Matrix:	Soil	Sampled:	02/21/18
Units:	ug/Kg	Received:	02/21/18
Basis:	dry	Analyzed:	02/23/18

Analyte	Result	RL
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	76-132
1,2-Dichloroethane-d4	113	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	114	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	256711
Units:	ug/Kg	Analyzed:	02/23/18
Diln Fac:	1.000		

Type: BS Lab ID: QC920955

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	109.5	88	54-155
Isopropyl Ether (DIPE)	25.00	21.45	86	55-134
Ethyl tert-Butyl Ether (ETBE)	25.00	23.81	95	59-134
Methyl tert-Amyl Ether (TAME)	25.00	24.74	99	63-126
1,1-Dichloroethene	25.00	28.35	113	68-132
Benzene	25.00	26.34	105	75-123
Trichloroethene	25.00	28.63	115	75-120
Toluene	25.00	25.71	103	76-120
Chlorobenzene	25.00	27.53	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	76-132
1,2-Dichloroethane-d4	107	74-149
Toluene-d8	95	80-120
Bromofluorobenzene	98	78-134

Type: BSD Lab ID: QC920956

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	106.2	85	54-155	3	38
Isopropyl Ether (DIPE)	25.00	21.00	84	55-134	2	26
Ethyl tert-Butyl Ether (ETBE)	25.00	23.70	95	59-134	0	34
Methyl tert-Amyl Ether (TAME)	25.00	24.43	98	63-126	1	27
1,1-Dichloroethene	25.00	28.26	113	68-132	0	28
Benzene	25.00	25.40	102	75-123	4	25
Trichloroethene	25.00	27.38	110	75-120	4	23
Toluene	25.00	25.37	101	76-120	1	24
Chlorobenzene	25.00	27.05	108	80-120	2	21

Surrogate	%REC	Limits
Dibromofluoromethane	103	76-132
1,2-Dichloroethane-d4	107	74-149
Toluene-d8	95	80-120
Bromofluorobenzene	97	78-134

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920957	Batch#:	256711
Matrix:	Soil	Analyzed:	02/23/18
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920957	Batch#:	256711
Matrix:	Soil	Analyzed:	02/23/18
Units:	ug/Kg		

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	112	76-132
1,2-Dichloroethane-d4	123	74-149
Toluene-d8	95	80-120
Bromofluorobenzene	103	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	256719
Units:	ug/Kg	Analyzed:	02/23/18
Diln Fac:	1.000		

Type: BS Lab ID: QC920988

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	98.42	79	54-155
Isopropyl Ether (DIPE)	25.00	20.01	80	55-134
Ethyl tert-Butyl Ether (ETBE)	25.00	20.29	81	59-134
Methyl tert-Amyl Ether (TAME)	25.00	19.93	80	63-126
1,1-Dichloroethene	25.00	24.42	98	68-132
Benzene	25.00	21.09	84	75-123
Trichloroethene	25.00	21.39	86	75-120
Toluene	25.00	21.25	85	76-120
Chlorobenzene	25.00	21.23	85	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	76-132
1,2-Dichloroethane-d4	96	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	98	78-134

Type: BSD Lab ID: QC920989

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	94.24	75	54-155	4	38
Isopropyl Ether (DIPE)	25.00	19.85	79	55-134	1	26
Ethyl tert-Butyl Ether (ETBE)	25.00	20.01	80	59-134	1	34
Methyl tert-Amyl Ether (TAME)	25.00	19.52	78	63-126	2	27
1,1-Dichloroethene	25.00	23.57	94	68-132	4	28
Benzene	25.00	20.58	82	75-123	2	25
Trichloroethene	25.00	20.65	83	75-120	4	23
Toluene	25.00	20.96	84	76-120	1	24
Chlorobenzene	25.00	20.84	83	80-120	2	21

Surrogate	%REC	Limits
Dibromofluoromethane	103	76-132
1,2-Dichloroethane-d4	94	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	102	78-134

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920990	Batch#:	256719
Matrix:	Soil	Analyzed:	02/23/18
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5035
Project#:	60489016	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC920990	Batch#:	256719
Matrix:	Soil	Analyzed:	02/23/18
Units:	ug/Kg		

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	76-132
1,2-Dichloroethane-d4	100	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	114	78-134

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	256711
MSS Lab ID:	297354-001	Sampled:	02/22/18
Matrix:	Soil	Received:	02/22/18
Units:	ug/Kg	Analyzed:	02/23/18
Basis:	as received		

Type: MS Diln Fac: 0.9634
Lab ID: QC921037

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<13.19	240.8	193.5	80	57-155
Isopropyl Ether (DIPE)	<0.8668	48.17	39.42	82	56-137
Ethyl tert-Butyl Ether (ETBE)	<0.7298	48.17	44.21	92	60-137
Methyl tert-Amyl Ether (TAME)	<0.5669	48.17	46.04	96	60-129
1,1-Dichloroethene	<0.9359	48.17	51.54	107	64-131
Benzene	<0.8987	48.17	45.96	95	66-122
Trichloroethene	<0.8318	48.17	48.48	101	57-133
Toluene	<0.7085	48.17	42.88	89	61-120
Chlorobenzene	<0.6834	48.17	44.43	92	56-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	111	74-149
Toluene-d8	93	80-120
Bromofluorobenzene	98	78-134

Type: MSD Diln Fac: 0.9311
Lab ID: QC921038

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	232.8	176.2	76	57-155	6	41
Isopropyl Ether (DIPE)	46.55	35.29	76	56-137	8	28
Ethyl tert-Butyl Ether (ETBE)	46.55	39.45	85	60-137	8	31
Methyl tert-Amyl Ether (TAME)	46.55	40.57	87	60-129	9	30
1,1-Dichloroethene	46.55	46.86	101	64-131	6	32
Benzene	46.55	40.71	87	66-122	9	32
Trichloroethene	46.55	43.55	94	57-133	7	34
Toluene	46.55	40.02	86	61-120	4	32
Chlorobenzene	46.55	41.44	89	56-120	4	33

Surrogate	%REC	Limits
Dibromofluoromethane	102	76-132
1,2-Dichloroethane-d4	105	74-149
Toluene-d8	94	80-120
Bromofluorobenzene	98	78-134

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 5030B
Project#:	60489016	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9488
MSS Lab ID:	297345-007	Batch#:	256719
Matrix:	Soil	Sampled:	02/22/18
Units:	ug/Kg	Received:	02/22/18
Basis:	as received	Analyzed:	02/23/18

Type: MS Lab ID: QC921054

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<7.286	237.2	179.3	76	57-155
Isopropyl Ether (DIPE)	<0.2730	47.44	35.18	74	56-137
Ethyl tert-Butyl Ether (ETBE)	<0.1915	47.44	35.74	75	60-137
Methyl tert-Amyl Ether (TAME)	<0.3290	47.44	35.01	74	60-129
1,1-Dichloroethene	<0.5192	47.44	38.96	82	64-131
Benzene	<0.4633	47.44	32.18	68	66-122
Trichloroethene	<0.5599	47.44	33.02	70	57-133
Toluene	<0.4979	47.44	30.36	64	61-120
Chlorobenzene	<0.3124	47.44	28.48	60	56-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	106	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	101	78-134

Type: MSD Lab ID: QC921055

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	237.2	185.0	78	57-155	3	41
Isopropyl Ether (DIPE)	47.44	36.10	76	56-137	3	28
Ethyl tert-Butyl Ether (ETBE)	47.44	36.93	78	60-137	3	31
Methyl tert-Amyl Ether (TAME)	47.44	35.88	76	60-129	2	30
1,1-Dichloroethene	47.44	46.44	98	64-131	18	32
Benzene	47.44	37.76	80	66-122	16	32
Trichloroethene	47.44	39.67	84	57-133	18	34
Toluene	47.44	36.29	77	61-120	18	32
Chlorobenzene	47.44	34.60	73	56-120	19	33

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	102	74-149
Toluene-d8	96	80-120
Bromofluorobenzene	100	78-134

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	B-1-0-0.5	Batch#:	256736
Lab ID:	297334-001	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	dry	Analyzed:	02/26/18
Diln Fac:	10.00		

Moisture: 13%

Analyte	Result	RL
alpha-BHC	ND	9.7
beta-BHC	ND	9.7
gamma-BHC	ND	9.7
delta-BHC	ND	9.7
Heptachlor	ND	9.7
Aldrin	ND	9.7
Heptachlor epoxide	ND	9.7
Endosulfan I	ND	9.7
Dieldrin	ND	9.7
4,4'-DDE	110	19
Endrin	ND	19
Endosulfan II	ND	19
Endosulfan sulfate	ND	19
4,4'-DDD	ND	19
Endrin aldehyde	ND	19
4,4'-DDT	130 #	19
alpha-Chlordane	ND	9.7
gamma-Chlordane	ND	9.7
Methoxychlor	ND	97
Toxaphene	ND	340

Surrogate	%REC	Limits
TCMX	DO	30-127
Decachlorobiphenyl	DO	33-136

#= CCV drift outside limits; average CCV drift within limits per method requirements
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	B-2-0-0.5	Batch#:	256736
Lab ID:	297334-003	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	dry	Analyzed:	02/26/18
Diln Fac:	10.00		

Moisture: 13%

Analyte	Result	RL
alpha-BHC	ND	9.9
beta-BHC	ND	9.9
gamma-BHC	ND	9.9
delta-BHC	ND	9.9
Heptachlor	ND	9.9
Aldrin	ND	9.9
Heptachlor epoxide	ND	9.9
Endosulfan I	ND	9.9
Dieldrin	ND	9.9
4,4'-DDE	75	19
Endrin	ND	19
Endosulfan II	ND	19
Endosulfan sulfate	ND	19
4,4'-DDD	ND	19
Endrin aldehyde	ND	19
4,4'-DDT	100 #	19
alpha-Chlordane	ND	9.9
gamma-Chlordane	ND	9.9
Methoxychlor	ND	99
Toxaphene	ND	350

Surrogate	%REC	Limits
TCMX	DO	30-127
Decachlorobiphenyl	DO	33-136

#= CCV drift outside limits; average CCV drift within limits per method requirements
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	B-3-0-0.5	Batch#:	256736
Lab ID:	297334-005	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	dry		

Moisture: 11%

Analyte	Result	RL	Diln Fac	Analyzed
alpha-BHC	ND	4.8	5.000	02/26/18
beta-BHC	ND	4.8	5.000	02/26/18
gamma-BHC	ND	4.8	5.000	02/26/18
delta-BHC	ND	4.8	5.000	02/26/18
Heptachlor	ND	4.8	5.000	02/26/18
Aldrin	ND	4.8	5.000	02/26/18
Heptachlor epoxide	ND	4.8	5.000	02/26/18
Endosulfan I	ND	4.8	5.000	02/26/18
Dieldrin	27	4.8	5.000	02/26/18
4,4'-DDE	130 C	9.3	5.000	02/26/18
Endrin	13	9.3	5.000	02/26/18
Endosulfan II	ND	9.3	5.000	02/26/18
Endosulfan sulfate	ND	9.3	5.000	02/26/18
4,4'-DDD	ND	9.3	5.000	02/26/18
Endrin aldehyde	ND	9.3	5.000	02/26/18
4,4'-DDT	250 #	37	20.00	02/27/18
alpha-Chlordane	ND	4.8	5.000	02/26/18
gamma-Chlordane	ND	4.8	5.000	02/26/18
Methoxychlor	ND	48	5.000	02/26/18
Toxaphene	ND	170	5.000	02/26/18

Surrogate	%REC	Limits	Diln Fac	Analyzed
TCMX	64	30-127	5.000	02/26/18
Decachlorobiphenyl	113	33-136	5.000	02/26/18

#= CCV drift outside limits; average CCV drift within limits per method requirements
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	B-4-0-0.5	Batch#:	256736
Lab ID:	297334-008	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	dry	Analyzed:	02/26/18
Diln Fac:	1.000		

Moisture: 14%

Analyte	Result	RL
alpha-BHC	ND	0.99
beta-BHC	ND	0.99
gamma-BHC	ND	0.99
delta-BHC	ND	0.99
Heptachlor	ND	0.99
Aldrin	ND	0.99
Heptachlor epoxide	ND	0.99
Endosulfan I	ND	0.99
Dieldrin	ND	0.99
4,4'-DDE	ND	1.9
Endrin	ND	1.9
Endosulfan II	ND	1.9
Endosulfan sulfate	ND	1.9
4,4'-DDD	ND	1.9
Endrin aldehyde	ND	1.9
4,4'-DDT	ND	1.9
alpha-Chlordane	ND	0.99
gamma-Chlordane	ND	0.99
Methoxychlor	ND	9.9
Toxaphene	ND	35

Surrogate	%REC	Limits
TCMX	75	30-127
Decachlorobiphenyl	84	33-136

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	B-5-0-0.5	Batch#:	256736
Lab ID:	297334-011	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	dry	Analyzed:	02/26/18
Diln Fac:	1.000		

Moisture: 10%

Analyte	Result	RL
alpha-BHC	ND	0.96
beta-BHC	ND	0.96
gamma-BHC	ND	0.96
delta-BHC	ND	0.96
Heptachlor	ND	0.96
Aldrin	ND	0.96
Heptachlor epoxide	ND	0.96
Endosulfan I	ND	0.96
Dieldrin	ND	0.96
4,4'-DDE	5.7	1.9
Endrin	ND	1.9
Endosulfan II	ND	1.9
Endosulfan sulfate	ND	1.9
4,4'-DDD	ND	1.9
Endrin aldehyde	ND	1.9
4,4'-DDT	7.2 #	1.9
alpha-Chlordane	ND	0.96
gamma-Chlordane	ND	0.96
Methoxychlor	ND	9.6
Toxaphene	ND	34

Surrogate	%REC	Limits
TCMX	79	30-127
Decachlorobiphenyl	82	33-136

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC921058	Batch#:	256736
Matrix:	Soil	Prepared:	02/23/18
Units:	ug/Kg	Analyzed:	02/26/18

Analyte	Result	RL
alpha-BHC	ND	0.85
beta-BHC	ND	0.85
gamma-BHC	ND	0.85
delta-BHC	ND	0.85
Heptachlor	ND	0.85
Aldrin	ND	0.85
Heptachlor epoxide	ND	0.85
Endosulfan I	ND	0.85
Dieldrin	ND	0.85
4,4'-DDE	ND	1.6
Endrin	ND	1.6
Endosulfan II	ND	1.6
Endosulfan sulfate	ND	1.6
4,4'-DDD	ND	1.6
Endrin aldehyde	ND	1.6
4,4'-DDT	ND	1.6
alpha-Chlordane	ND	0.85
gamma-Chlordane	ND	0.85
Methoxychlor	ND	8.5
Toxaphene	ND	30

Surrogate	%REC	Limits
TCMX	65	30-127
Decachlorobiphenyl	66	33-136

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC921062	Batch#:	256736
Matrix:	Soil	Prepared:	02/23/18
Units:	ug/Kg	Analyzed:	02/26/18

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	6.623	4.890	74	41-127
Heptachlor	6.623	4.781	72	33-134
Aldrin	6.623	4.594	69	39-130
Dieldrin	6.623	4.305	65	44-139
Endrin	6.623	4.954	75	39-150
4,4'-DDT	6.623	5.356 #	81	38-141

Surrogate	%REC	Limits
TCMX	69	30-127
Decachlorobiphenyl	71	33-136

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

ENTHALPY ANALYTICAL

Batch QC Report

Organochlorine Pesticides

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3550C
Project#:	60489016	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	256736
MSS Lab ID:	297369-002	Sampled:	02/23/18
Matrix:	Soil	Received:	02/23/18
Units:	ug/Kg	Prepared:	02/23/18
Basis:	as received	Analyzed:	02/26/18
Diln Fac:	1.000		

Type: MS Lab ID: QC921063

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2338	6.579	5.312	81	39-128
Heptachlor	<0.2557	6.579	5.067	77	40-128
Aldrin	<0.2531	6.579	4.879	74	39-129
Dieldrin	<0.1456	6.579	5.341	81	40-144
Endrin	<0.2933	6.579	6.297	96	45-152
4,4'-DDT	<0.4314	6.579	7.040 #	107	30-151

Surrogate	%REC	Limits
TCMX	61	30-127
Decachlorobiphenyl	75	33-136

Type: MSD Lab ID: QC921064

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	6.759	5.471	81	39-128	0	51
Heptachlor	6.759	5.218	77	40-128	0	47
Aldrin	6.759	5.072	75	39-129	1	50
Dieldrin	6.759	4.963	73	40-144	10	58
Endrin	6.759	5.763	85	45-152	12	54
4,4'-DDT	6.759	6.025 #	89	30-151	18	55

Surrogate	%REC	Limits
TCMX	64	30-127
Decachlorobiphenyl	72	33-136

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-1-GW	Diln Fac:	1.000
Lab ID:	297334-014	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Arsenic	25	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Barium	1,400	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Beryllium	6.1	2.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cadmium	18	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Chromium	120	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cobalt	140	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Copper	87	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Lead	23	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Mercury	ND	0.20	256787	02/26/18	02/27/18	METHOD	EPA 7470A
Molybdenum	6.0	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Nickel	350	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Selenium	ND	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Silver	7.6	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Thallium	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Vanadium	180	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Zinc	260 b	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-2-GW	Diln Fac:	1.000
Lab ID:	297334-015	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Arsenic	44	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Barium	1,300	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Beryllium	19	2.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cadmium	57	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Chromium	120	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cobalt	220	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Copper	160	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Lead	13	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Mercury	1.4	0.20	256787	02/26/18	02/27/18	METHOD	EPA 7470A
Molybdenum	ND	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Nickel	940	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Selenium	ND	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Silver	16	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Thallium	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Vanadium	200	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Zinc	390 b	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-4-GW	Diln Fac:	1.000
Lab ID:	297334-016	Sampled:	02/21/18
Matrix:	Water	Received:	02/21/18
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Arsenic	40	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Barium	960	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Beryllium	11	2.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cadmium	55	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Chromium	120	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Cobalt	210	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Copper	190	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Lead	19	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Mercury	0.81	0.20	256787	02/26/18	02/27/18	METHOD	EPA 7470A
Molybdenum	ND	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Nickel	510	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Selenium	ND	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Silver	14	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Thallium	ND	10	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Vanadium	220	5.0	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B
Zinc	280 b	20	256847	02/27/18	03/01/18	EPA 3010A	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	256787
Lab ID:	QC921257	Prepared:	02/26/18
Matrix:	Water	Analyzed:	02/27/18
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	256787
Matrix:	Water	Prepared:	02/26/18
Units:	ug/L	Analyzed:	02/27/18
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC921258	2.000	1.893	95	80-120		
BSD	QC921259	2.000	1.950	97	80-120	3	20

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	256787
Field ID:	B-1-GW	Sampled:	02/21/18
MSS Lab ID:	297334-014	Received:	02/21/18
Matrix:	Water	Prepared:	02/26/18
Units:	ug/L	Analyzed:	02/27/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC921260	0.1956	2.000	2.003	90	63-120		
MSD	QC921261		2.000	1.968	89	63-120	2	36

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3010A
Project#:	60489016	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC921473	Batch#:	256847
Matrix:	Water	Prepared:	02/27/18
Units:	ug/L	Analyzed:	03/01/18

Analyte	Result	RL
Antimony	ND	10
Arsenic	ND	10
Barium	ND	5.0
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	5.0
Cobalt	ND	5.0
Copper	ND	5.0
Lead	ND	5.0
Molybdenum	ND	5.0
Nickel	ND	5.0
Selenium	ND	20
Silver	ND	5.0
Thallium	ND	10
Vanadium	ND	5.0
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3010A
Project#:	60489016	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	256847
Units:	ug/L	Prepared:	02/27/18
Diln Fac:	1.000	Analyzed:	03/01/18

Type: BS Lab ID: QC921474

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	97.94	98	68-120
Arsenic	100.0	99.68	100	76-120
Barium	100.0	100.4	100	80-120
Beryllium	100.0	99.38	99	80-120
Cadmium	100.0	97.71	98	80-120
Chromium	100.0	101.3	101	80-120
Cobalt	100.0	100.5	101	80-120
Copper	100.0	97.09	97	80-120
Lead	100.0	104.1 b	104	80-120
Molybdenum	100.0	99.55	100	80-120
Nickel	100.0	102.2	102	80-120
Selenium	100.0	100.3	100	76-120
Silver	100.0	88.92	89	80-120
Thallium	50.00	51.49	103	80-127
Vanadium	100.0	107.8	108	80-120
Zinc	100.0	101.0 b	101	77-120

Type: BSD Lab ID: QC921475

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	101.1	101	68-120	3	20
Arsenic	100.0	101.5	101	76-120	2	20
Barium	100.0	101.6	102	80-120	1	20
Beryllium	100.0	101.8	102	80-120	2	20
Cadmium	100.0	99.23	99	80-120	2	20
Chromium	100.0	103.2	103	80-120	2	20
Cobalt	100.0	102.0	102	80-120	1	20
Copper	100.0	99.48	99	80-120	2	20
Lead	100.0	106.9 b	107	80-120	3	20
Molybdenum	100.0	101.6	102	80-120	2	20
Nickel	100.0	104.6	105	80-120	2	20
Selenium	100.0	104.1	104	76-120	4	20
Silver	100.0	89.14	89	80-120	0	21
Thallium	50.00	51.02	102	80-127	1	20
Vanadium	100.0	109.9	110	80-120	2	20
Zinc	100.0	103.1 b	103	77-120	2	23

b= See narrative
RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3010A
Project#:	60489016	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	256847
MSS Lab ID:	297371-001	Sampled:	02/22/18
Matrix:	Water	Received:	02/23/18
Units:	ug/L	Prepared:	02/27/18
Diln Fac:	1.000	Analyzed:	03/01/18

Type: MS Lab ID: QC921476

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	5.098	100.0	119.6	114	42-130
Arsenic	9.251	100.0	130.3	121	53-139
Barium	241.9	100.0	343.6	102	71-123
Beryllium	<0.5336	100.0	106.4	106	80-120
Cadmium	1.053	100.0	129.3	128 *	80-124
Chromium	1.666	100.0	103.3	102	76-124
Cobalt	<1.000	100.0	104.2	104	75-122
Copper	16.44	100.0	164.9	148 *	69-125
Lead	<1.185	100.0	89.88 b	90	59-127
Molybdenum	9.909	100.0	111.8	102	78-122
Nickel	3.794	100.0	101.2	97	70-123
Selenium	<2.791	100.0	120.4	120	50-144
Silver	11.67	100.0	121.4	110	66-125
Thallium	<1.934	50.00	39.61	79	65-130
Vanadium	39.63	100.0	149.4	110	77-124
Zinc	8.962	100.0	122.8 b	114	66-130

Type: MSD Lab ID: QC921477

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	112.9	108	42-130	6	58
Arsenic	100.0	125.7	116	53-139	4	48
Barium	100.0	342.2	100	71-123	0	28
Beryllium	100.0	100.1	100	80-120	6	20
Cadmium	100.0	121.5	120	80-124	6	20
Chromium	100.0	98.46	97	76-124	5	25
Cobalt	100.0	98.70	99	75-122	5	20
Copper	100.0	119.6	103	69-125	32 *	27
Lead	100.0	83.89 b	84	59-127	7	32
Molybdenum	100.0	105.5	96	78-122	6	24
Nickel	100.0	94.90	91	70-123	6	26
Selenium	100.0	116.2	116	50-144	4	52
Silver	100.0	114.2	103	66-125	6	29
Thallium	50.00	39.37	79	65-130	1	30
Vanadium	100.0	138.0	98	77-124	8	23
Zinc	100.0	115.0 b	106	66-130	7	22

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-1-0-0.5	Basis:	dry
Lab ID:	297334-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 13%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	4.7	1.7	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	100	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.59	0.12	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	1.3	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	48	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	25	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	51	1.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.032	0.020	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.3	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	58	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.60	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	48	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	91	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-1-3.5-4	Basis:	dry
Lab ID:	297334-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 26%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.6	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	5.6	2.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	140	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.70	0.13	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.99	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	56	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	18	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	6.2	1.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.026	0.021	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.4	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	72	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.6	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.66	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	52	0.33	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	61	1.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-2-0-0.5	Basis:	dry
Lab ID:	297334-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 13%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	6.2	1.6	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	110	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.58	0.10	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	1.1	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	49	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	10	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	32	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	22	1.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.038	0.019	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.3	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	58	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.52	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	52	0.26	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	88	1.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-2-3.5-4	Basis:	dry
Lab ID:	297334-004	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 22%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.5	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	5.0	1.9	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	120	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.68	0.13	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.83	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	57	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	18	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	6.0	1.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	ND	0.022	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.5	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	72	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.5	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.63	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	51	0.32	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	59 b	1.3	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-3-0-0.5	Basis:	dry
Lab ID:	297334-005	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 11%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	24	1.6	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	120	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.61	0.11	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	1.1	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	47	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	35	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	12	1.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.020	0.019	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.4	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	60	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.54	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	53	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	70 b	1.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-3-3.5-4	Basis:	dry
Lab ID:	297334-006	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 24%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	8.2	1.8	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	160	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.90	0.12	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	1.3	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	71	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	14	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	30	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	9.2	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.037	0.021	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.7	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	94	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.60	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	63	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	78 b	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-3-6.5-7	Basis:	dry
Lab ID:	297334-007	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 21%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	4.6	1.8	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	120	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.60	0.12	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.76	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	53	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	17	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	5.2	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	ND	0.022	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.0 b	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	65	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.60	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	47	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	50 b	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-4-0-0.5	Basis:	dry
Lab ID:	297334-008	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 14%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	11	1.6	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	150	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.67	0.11	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.99	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	54	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	11	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	23	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	13	1.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	ND	0.020	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.4	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	63	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.55	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	52	0.27	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	60 b	1.1	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-4-3.5-4	Basis:	dry
Lab ID:	297334-009	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 22%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.5	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	3.6	1.8	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	94	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.53	0.12	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.76	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	44	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	8.9	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	11	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	4.1	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	ND	0.021	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	0.94	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	53	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.5	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.62	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	41	0.31	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	43 b	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-4-6.5-7	Basis:	dry
Lab ID:	297334-010	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 22%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	4.3	1.8	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	110	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.58	0.12	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	1.0	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	47	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	10	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	14	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	4.8	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	ND	0.022	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	0.75	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	56	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.4	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.60	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	46	0.30	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	46 b	1.2	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-5-0-0.5	Basis:	dry
Lab ID:	297334-011	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 10%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Arsenic	5.3	1.5	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Barium	120	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Beryllium	0.66	0.10	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cadmium	0.73	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Chromium	44	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Cobalt	9.4	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Copper	13	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Lead	15	1.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Mercury	0.040	0.018	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.0	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Nickel	44	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Selenium	ND	2.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Silver	ND	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Thallium	ND	0.51	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Vanadium	46	0.25	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B
Zinc	48 b	1.0	256768	02/26/18	02/26/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-5-3.5-4	Basis:	dry
Lab ID:	297334-012	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 18%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.4	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Arsenic	4.3	1.8	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Barium	130	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Beryllium	0.64	0.12	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Cadmium	0.67	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Chromium	43	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Cobalt	13	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Copper	12	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Lead	7.7	1.2	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Mercury	0.026	0.020	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	1.1	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Nickel	36	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Selenium	ND	2.4	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Silver	ND	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Thallium	ND	0.62	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Vanadium	42	0.31	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Zinc	41 b	1.2	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

California Title 22 Metals

Lab #:	297334	Project#:	60489016
Client:	AECOM	Location:	CalAm_Monterey Peninsula Water Supply
Field ID:	B-5-6.5-7	Basis:	dry
Lab ID:	297334-013	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/21/18
Units:	mg/Kg	Received:	02/21/18

Moisture: 20%

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.5	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Arsenic	4.5	1.9	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Barium	120	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Beryllium	0.67	0.13	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Cadmium	0.96	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Chromium	43	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Cobalt	10	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Copper	14	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Lead	6.5	1.3	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Mercury	0.039	0.020	256909	02/28/18	02/28/18	METHOD	EPA 7471A
Molybdenum	0.82	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Nickel	42	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Selenium	ND	2.5	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Silver	ND	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Thallium	ND	0.64	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Vanadium	45	0.32	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B
Zinc	46 b	1.3	256768	02/26/18	02/27/18	EPA 3050B	EPA 6010B

b= See narrative
ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3050B
Project#:	60489016	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC921184	Batch#:	256768
Matrix:	Soil	Prepared:	02/26/18
Units:	mg/Kg	Analyzed:	02/26/18

Analyte	Result	RL
Antimony	ND	2.0
Arsenic	ND	1.5
Barium	ND	0.25
Beryllium	ND	0.099
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.99
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	2.0
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	0.99

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3050B
Project#:	60489016	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	256768
Units:	mg/Kg	Prepared:	02/26/18
Diln Fac:	1.000	Analyzed:	02/26/18

Type: BS Lab ID: QC921185

Analyte	Spiked	Result	%REC	Limits
Antimony	46.73	53.69	115	80-120
Arsenic	46.73	51.30	110	80-120
Barium	46.73	47.33	101	80-120
Beryllium	23.36	23.89	102	80-120
Cadmium	46.73	47.36	101	80-120
Chromium	46.73	50.53	108	80-120
Cobalt	46.73	47.77	102	80-120
Copper	46.73	49.24	105	80-120
Lead	46.73	47.35	101	80-120
Molybdenum	46.73	47.62	102	80-120
Nickel	46.73	45.20	97	80-120
Selenium	46.73	49.83	107	80-120
Silver	4.673	4.548	97	80-120
Thallium	46.73	50.69	108	80-120
Vanadium	46.73	51.35	110	80-120
Zinc	46.73	48.21	103	80-120

Type: BSD Lab ID: QC921186

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	49.50	52.96	107	80-120	7	20
Arsenic	49.50	56.72	115	80-120	4	20
Barium	49.50	51.83	105	80-120	3	20
Beryllium	24.75	26.39	107	80-120	4	20
Cadmium	49.50	51.46	104	80-120	3	20
Chromium	49.50	54.58	110	80-120	2	20
Cobalt	49.50	51.83	105	80-120	2	20
Copper	49.50	53.47	108	80-120	2	20
Lead	49.50	51.66	104	80-120	3	20
Molybdenum	49.50	51.77	105	80-120	3	20
Nickel	49.50	49.12	99	80-120	3	20
Selenium	49.50	55.22	112	80-120	4	20
Silver	4.950	5.023	101	80-120	4	22
Thallium	49.50	55.92	113	80-120	4	20
Vanadium	49.50	55.63	112	80-120	2	20
Zinc	49.50	52.38	106	80-120	3	20

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	EPA 3050B
Project#:	60489016	Analysis:	EPA 6010B
Field ID:	B-1-0-0.5	Batch#:	256768
MSS Lab ID:	297334-001	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	mg/Kg	Prepared:	02/26/18
Basis:	dry	Analyzed:	02/26/18
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC921187

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1593	56.34	32.33	57	1-120
Arsenic	4.749	56.34	65.64	108	71-123
Barium	103.1	56.34	166.9	113	48-155
Beryllium	0.5941	28.17	28.32	98	80-120
Cadmium	1.331	56.34	58.26	101	78-120
Chromium	48.28	56.34	108.1	106	64-135
Cobalt	10.64	56.34	62.70	92	65-120
Copper	25.43	56.34	87.58	110	75-132
Lead	50.75	56.34	104.2	95	53-128
Molybdenum	1.323	56.34	52.83	91	68-120
Nickel	58.27	56.34	109.3	91	56-128
Selenium	<0.2719	56.34	59.63	106	59-120
Silver	<0.06050	5.634	5.252	93	36-123
Thallium	<0.1822	56.34	52.48	93	55-120
Vanadium	48.40	56.34	109.4	108	73-129
Zinc	91.43	56.34	147.9	100	49-138

Type: MSD Moisture: 13%
Lab ID: QC921188

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	57.47	32.92	57	1-120	0	50
Arsenic	57.47	69.96	113	71-123	5	27
Barium	57.47	183.9	141	48-155	9	41
Beryllium	28.74	30.40	104	80-120	5	20
Cadmium	57.47	62.50	106	78-120	5	21
Chromium	57.47	115.7	117	64-135	6	37
Cobalt	57.47	66.69	98	65-120	4	32
Copper	57.47	94.88	121	75-132	7	33
Lead	57.47	107.3	98	53-128	2	48
Molybdenum	57.47	56.68	96	68-120	5	23
Nickel	57.47	115.9	100	56-128	5	38
Selenium	57.47	63.79	111	59-120	5	30
Silver	5.747	5.712	99	36-123	6	47
Thallium	57.47	55.80	97	55-120	4	22
Vanadium	57.47	117.9	121	73-129	6	27
Zinc	57.47	154.2	109	49-138	3	39

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	256909
Lab ID:	QC921709	Prepared:	02/28/18
Matrix:	Soil	Analyzed:	02/28/18
Units:	mg/Kg		

Result	RL
ND	0.016

ND= Not Detected
RL= Reporting Limit

71.0

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	256909
Matrix:	Soil	Prepared:	02/28/18
Units:	mg/Kg	Analyzed:	02/28/18
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC921710	0.1667	0.1715	103	80-126		
BSD	QC921711	0.1695	0.1624	96	80-126	7	45

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

California Title 22 Metals

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	B-1-0-0.5	Batch#:	256909
MSS Lab ID:	297334-001	Sampled:	02/21/18
Matrix:	Soil	Received:	02/21/18
Units:	mg/Kg	Prepared:	02/28/18
Basis:	dry	Analyzed:	02/28/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC921712	0.03243	0.1796	0.3150	157	61-157	13%		
MSD	QC921713		0.1768	0.2078	99	61-157	13%	40	57

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Moisture

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	ASTM D2216-98/CLP
Analyte:	Moisture, Percent	Batch#:	256752
Matrix:	Soil	Sampled:	02/21/18
Units:	%	Received:	02/21/18
Diln Fac:	1.000	Analyzed:	02/24/18

Field ID	Lab ID	Result	RL
B-1-0-0.5	297334-001	13	1
B-1-3.5-4	297334-002	26	1
B-2-0-0.5	297334-003	13	1
B-2-3.5-4	297334-004	22	1
B-3-0-0.5	297334-005	11	1
B-3-3.5-4	297334-006	24	1
B-3-6.5-7	297334-007	21	1
B-4-0-0.5	297334-008	14	1
B-4-3.5-4	297334-009	22	1
B-4-6.5-7	297334-010	22	1
B-5-0-0.5	297334-011	10	1
B-5-3.5-4	297334-012	18	1
B-5-6.5-7	297334-013	20	1

RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Moisture

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	ASTM D2216-98/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	256752
MSS Lab ID:	297309-015	Sampled:	02/19/18
Lab ID:	QC921117	Received:	02/21/18
Matrix:	Miscell.	Analyzed:	02/24/18

MSS Result	Result	RL	RPD	Lim
4.093	4.179	1.000	2	26

RL= Reporting Limit
RPD= Relative Percent Difference

50.0

ENTHALPY ANALYTICAL

pH

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 9045D
Analyte:	pH	Batch#:	256843
Matrix:	Soil	Received:	02/21/18
Units:	SU	Prepared:	02/27/18 10:30
Diln Fac:	1.000	Analyzed:	02/27/18 11:45

Field ID	Lab ID	Result	RL	Sampled
B-1-0-0.5	297334-001	6.7	1.0	02/21/18 09:40
B-2-3.5-4	297334-004	7.4	1.0	02/21/18 11:10
B-3-6.5-7	297334-007	7.9	1.0	02/21/18 12:13
B-4-0-0.5	297334-008	7.1	1.0	02/21/18 12:34
B-5-3.5-4	297334-012	7.5	1.0	02/21/18 13:50

RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

pH

Lab #:	297334	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	METHOD
Project#:	60489016	Analysis:	EPA 9045D
Analyte:	pH	Diln Fac:	1.000
Field ID:	B-5-3.5-4	Batch#:	256843
Type:	SDUP	Sampled:	02/21/18 13:50
MSS Lab ID:	297334-012	Received:	02/21/18
Lab ID:	QC921454	Prepared:	02/27/18 10:30
Matrix:	Soil	Analyzed:	02/27/18 11:45
Units:	SU		

MSS Result	Result	RL	RPD	Lim
7.510	7.580	1.000	1	20

RL= Reporting Limit
RPD= Relative Percent Difference

45.0

ea

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 297624
ANALYTICAL REPORT

AECOM	Project	: 60489016
300 Lakeside Drive	Location	: CalAm_Monterey Peninsula Water Supply
Oakland, CA 94612	Level	: II

Sample ID	Lab ID
B-1-0-0.5	297624-001
B-1-3.5-4	297624-002
B-2-3.5-4	297624-003
B-3-3.5-4	297624-004
B-3-6.5-7	297624-005
B-4-0-0.5	297624-006

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

Signature: Tracy Babjar Date: 03/09/2018

Tracy Babjar
Project Manager
tracy.babjar@enthalpy.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**297624**
Client:	**AECOM**
Project:	**60489016**
Location:	**CalAm_Monterey Peninsula Water Supply**
Request Date:	**03/02/18**
Samples Received:	**02/21/18**

This data package contains sample and QC results for six soil samples, requested for the above referenced project on 03/02/18. The samples were received cold and intact.

Metals (EPA 6010B) WET Leachate:
Low recovery was observed for chromium in the MS for batch 257023; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Metals (EPA 6010B) WET DI Leachate:
No analytical problems were encountered.

MONTROSE

Tracy Babjar <tbabjar@montrose-env.com>

RE: 60489016 - Enthalpy (Berkeley) Data ~~(297334)~~

CT# 297624

2 messages

Snyder, Hunter <Hunter.Snyder@aecom.com> Fri, Mar 2, 2018 at 10:21 AM
To: "will.rice@enthalpy.com" <will.rice@enthalpy.com>, Tracy Babjar <tracy.babjar@enthalpy.com>
Cc: "Nase, Suzanne" <suzanne.nase@aecom.com>

Hi Will,

Please run the following samples for leachability:

1 - B-1-0-0.5 for Lead (WET and DI-WET) -001
2 - B-1-3.5-4 for Chromium (WET and DI-WET) -002
3 - B-2-3.5-4 for Chromium (WET and DI-WET) -004
4 - B-3-3.5-4 for Chromium (WET and DI-WET) -006
5 - B-3-6.5-7 for Chromium (WET and DI-WET) -007
6 - B-4-0-0.5 for Chromium (WET and DI-WET) -008

Thank you,

Hunter Snyder

Geologist II

Site Assessment and Remediation Department

D: 510-874-3266 C: 303-859-3278

hunter.snyder@aecom.com

AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612, USA
T +1-510-893-3600 F: 1-510-874-3268

Aecom.com

From: Will Rice [mailto:will.rice@enthalpy.com]

Enthalpy Analytical LLC
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 297334

Project No: 60489016
Project Name: Castroville
EDD Format: _____ Rpt Level: ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ * Standard

Sampler: Hunter Snyder
Report To: Suzanne Nase
Company : AECOM
Telephone: 510-874-3196
Email: Suzanne.nase@aecom.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix Water	Matrix Soil	Matrix	# of Containers	Chemical Preservative SOBI	CH3OH	HNO_3	NaOH	None	Title 22 Metals (EPA 6010)	TPH-d/TPH-mo (EPA 8015)	VOCs/TPH-g/Gas Ox (EPA 8260)	Pesticides (EPA 8081)	pH (EPA 9045D)	Mositure (ASTM D2216)	TPH-d/TPH-mo with pre/post Silica Gel Cleanup (EPA 8015M/EPA 3630)
	B-1-0-0.5	2.21.18	0940		x		1					x	x			x	x	x	
	B-1-3.5-4	2.21.18	0947		x		6	x	x				x	x	x			x	x
	~~B-1-6.5-7~~				x			x	x				x	x	x			x	x
	B-2-0-0.5	2.21.18	1104		x		1					x	x			x		x	
	B-2-3.5-4	2.21.18	1110		x		6	x	x				x	x	x		x	x	x
	~~B-2-6.5-7~~				x			x	x				x	x	x			x	x
	B-3-0-0.5	2.21.18	1202		x		1					x	x			x		x	
	B-3-3.5-4	2.21.18	1206		x		6	x	x				x	x	x			x	x
	B-3-6.5-7	2.21.18	1213		x		6	x	x				x	x	x		x	x	x
	B-4-0-0.5	2.21.18	1234		x		1					x	x			x	x	x	
	B-4-3.5-4	2.21.18	1237		x		6	x	x				x	x	x			x	x
	B-4-6.5-7	2.21.18	1247		x		6	x	x				x	x	x			x	x

Notes:

Please also send report to Hunter Snyder

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

Enthalpy Analytical LLC
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 247334

Project No: 60489016
Project Name: Castroville
EDD Format: _____ Rpt Level: ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☒ Standard

Sampler: Hunter Snyder
Report To: Suzanne Nase
Company : AECOM
Telephone: 510-874-3196
Email: Suzanne.nase@aecom.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix Water	Matrix Soil	Matrix	Matrix	# of Containers	Chemical Preservative SOBI	CH3OH	HNO_3	NaOH	None	Title 22 Metals (EPA 6010)	TPH-d/TPH-mo (EPA 8015)	VOCs/TPH-g/Gas Ox (EPA 8260)	Pesticides (EPA 8081)	pH (EPA 9045D)	Mositure (ASTM D2216)	TPH-d/TPH-mo with pre/post Silica Gel Cleanup (EPA 8015M/EPA 3630)
	B-5-0-0.5	2.21.18	1345		x			1					x	x			x		x	
	B-5-3.5-4	2.21.18	1350		x			6	x	x				x	x	x		x	x	x
	B-5-6.5-7	2.21.18	1355		x			6	x	x				x	x	x			x	x
	B-1-GW	2.21.18	1023	X				9			X			X	X	X				X
	B-2-GW	2.21.18	1120	X				9			X			X	X	X				X
	B-4-GW	2.21.18	1257	X				9			X			X	X	X				X

Notes:

Please also send report to Hunter Snyder

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
[signature] 2-21-18 17:01 DATE/TIME
DATE/TIME
DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 297334 Client: AECOM

Date Received: 2/21/18 Project: Castroville

ENTHALPY

Section 2: Samples received in a cooler? ☒ Yes, how many? 2 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/21/18 By (print) TKY (sign) TKY

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

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

Packing in cooler: (if other, describe) _____

☒ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☒ A ☐ B

Cooler Temp (°C): #1: 2.4, #2: 2.6, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	X		
Were Method 5035 sampling containers present?	X	X	
If YES, what time were they transferred to freezer? 17:39			
Did all bottles arrive unbroken/unopened?	X		
Are there any missing / extra samples?		X	
Are samples in the appropriate containers for indicated tests?	X		
Are sample labels present, in good condition and complete?	X		
Does the container count match the COC?			
Do the sample labels agree with custody papers?	X		
Was sufficient amount of sample sent for tests requested?	X		
Did you change the hold time in LIMS for unpreserved VOAs?			X
Did you change the hold time in LIMS for preserved terracores?			X
X Are bubbles > 6mm absent in VOA samples?		X	
Was the client contacted concerning this sample delivery?		X	
If YES, who was called? _____ By _____ Date: _____			

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

pH strip lot# 808DH491, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# 2017011988 added to samples 15,16 on/at 1340 on 2/22/18

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: Sample 14 - 2/6 VOAs arrived containing bubble

sample 16 - 1/4 VOAs arrived containing bubble

Date Logged in 2-22-18 **By (print)** KP **(sign)** KP

Date Labeled 2/22/18 **By (print)** TKY **(sign)** TKY

ENTHALPY ANALYTICAL

Detections Summary for 297624

Results for any subcontracted analyses are not included in this summary.

Client : AECOM
Project : 60489016
Location : CalAm_Monterey Peninsula Water Supply

Client Sample ID : B-1-0-0.5 Laboratory Sample ID : 297624-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1.7		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : B-1-3.5-4 Laboratory Sample ID : 297624-002

No Detections

Client Sample ID : B-2-3.5-4 Laboratory Sample ID : 297624-003

No Detections

Client Sample ID : B-3-3.5-4 Laboratory Sample ID : 297624-004

No Detections

Client Sample ID : B-3-6.5-7 Laboratory Sample ID : 297624-005

No Detections

Client Sample ID : B-4-0-0.5 Laboratory Sample ID : 297624-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Chromium	0.25		0.25	mg/L	STLC	10.00	EPA 6010B	WET

ENTHALPY ANALYTICAL

Chromium

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	02/21/18
Matrix:	WET Leachate	Received:	02/21/18
Units:	mg/L	Prepared:	03/05/18
Diln Fac:	10.00	Analyzed:	03/05/18
Batch#:	257023		

Field ID	Type	Lab ID	Result	RL
B-1-3.5-4	SAMPLE	297624-002	ND	0.25
B-2-3.5-4	SAMPLE	297624-003	ND	0.25
B-3-3.5-4	SAMPLE	297624-004	ND	0.25
B-3-6.5-7	SAMPLE	297624-005	ND	0.25
B-4-0-0.5	SAMPLE	297624-006	0.25	0.25
	BLANK	QC922143	ND	0.25

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Lead

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	257023
Field ID:	B-1-0-0.5	Sampled:	02/21/18
Matrix:	WET Leachate	Received:	02/21/18
Units:	mg/L	Prepared:	03/05/18
Diln Fac:	10.00	Analyzed:	03/05/18

Type	Lab ID	Result	RL
SAMPLE	297624-001	1.7	0.25
BLANK	QC922143	ND	0.25

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Chromium

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	257023
Field ID:	ZZZZZZZZZZ	Sampled:	02/28/18
MSS Lab ID:	297544-002	Received:	02/28/18
Matrix:	WET Leachate	Prepared:	03/05/18
Units:	mg/L	Analyzed:	03/05/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC922144		0.1000	0.1009	101	80-120			1.000
BSD	QC922145		0.1000	0.09992	100	80-120	1	20	1.000
MS	QC922146	1.562	0.5000	1.893	66 *	76-124			10.00
MSD	QC922147		0.5000	1.942	76	76-124	3	25	10.00

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Lead

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	257023
Field ID:	ZZZZZZZZZZ	Sampled:	02/28/18
MSS Lab ID:	297544-002	Received:	02/28/18
Matrix:	WET Leachate	Prepared:	03/05/18
Units:	mg/L	Analyzed:	03/05/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC922144		0.1000	0.1037	104	80-120			1.000
BSD	QC922145		0.1000	0.1037	104	80-120	0	20	1.000
MS	QC922146	0.9506	0.5000	1.441	98	59-127			10.00
MSD	QC922147		0.5000	1.486	107	59-127	3	32	10.00

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Chromium

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET DI
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	02/21/18
Matrix:	WET DI Leachate	Received:	02/21/18
Units:	mg/L	Prepared:	03/08/18
Diln Fac:	1.000	Analyzed:	03/08/18
Batch#:	257168		

Field ID	Type	Lab ID	Result	RL
B-1-3.5-4	SAMPLE	297624-002	ND	0.0050
B-2-3.5-4	SAMPLE	297624-003	ND	0.0050
B-3-3.5-4	SAMPLE	297624-004	ND	0.0050
B-3-6.5-7	SAMPLE	297624-005	ND	0.0050
B-4-0-0.5	SAMPLE	297624-006	ND	0.0050
	BLANK	QC922730	ND	0.0050

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Lead

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET DI
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	257168
Field ID:	B-1-0-0.5	Sampled:	02/21/18
Matrix:	WET DI Leachate	Received:	02/21/18
Units:	mg/L	Prepared:	03/08/18
Diln Fac:	1.000	Analyzed:	03/08/18

Type	Lab ID	Result	RL
SAMPLE	297624-001	ND	0.0050
BLANK	QC922730	ND	0.0050

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Chromium

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET DI
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	257168
Field ID:	B-1-3.5-4	Sampled:	02/21/18
MSS Lab ID:	297624-002	Received:	02/21/18
Matrix:	WET DI Leachate	Prepared:	03/08/18
Units:	mg/L	Analyzed:	03/08/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC922731		0.1000	0.09610	96	80-120		
BSD	QC922732		0.1000	0.09512	95	80-120	1	20
MS	QC922733	<0.0005602	0.1000	0.09648	96	76-124		
MSD	QC922734		0.1000	0.09702	97	76-124	1	25

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Batch QC Report

Lead

Lab #:	297624	Location:	CalAm_Monterey Peninsula Water Supply
Client:	AECOM	Prep:	WET DI
Project#:	60489016	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	257168
Field ID:	B-1-3.5-4	Sampled:	02/21/18
MSS Lab ID:	297624-002	Received:	02/21/18
Matrix:	WET DI Leachate	Prepared:	03/08/18
Units:	mg/L	Analyzed:	03/08/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC922731		0.1000	0.1015	102	80-120		
BSD	QC922732		0.1000	0.1002	100	80-120	1	20
MS	QC922733	<0.001185	0.1000	0.1004	100	59-127		
MSD	QC922734		0.1000	0.1002	100	59-127	0	32

RPD= Relative Percent Difference

Appendix B

Laboratory Quality Assurance/Quality Control

Appendix B: Castroville Pipeline Project Laboratory Data Quality

B.0

This section discusses the results of the validation of the chemical laboratory data generated in support of the Castroville Pipeline for the CAW Monterey Peninsula Water Supply Project. Soil, groundwater, and leachate samples were analyzed for Gasoline Range Organics [United States Environmental Protection Agency (USEPA) 8015B], Diesel Oil Range Organics (DRO) and Motor Oil Range Organics (USEPA 8015B), Volatile Organic Compounds (VOCs) (USEPA 8260D, Organochlorine Pesticides (USEPA 8081A), Polychloro biphenyls (PCBs) (USEPA 8082), and metals (USEPA Methods 6010B for inductively coupled plasma (ICP) metals and USEPA Methods 7470 A and 7471 for mercury). In addition both California Environmental Protection Agency (CalEPA) and USEPA extract analysis were performed on soil samples when required.

The following sections describe the quality issues found during the data validation of the laboratory reports applicable to this project.

B.1 Chromatography Diesel Samples

In all cases where DRO was reported, the chromatogram did not match that of the diesel standard used both for identification of diesel and to determine the concentration. These sample chromatograms, as well as the standard chromatogram were made available to AECOM by the laboratory. They were examined by the AECOM Senior Project Chemist to confirm that the sample did not contain pure diesel. However, because unidentified diesel range organic compounds were present, in small quantities, the reported concentrations were flagged “J”, estimated. The chromatograms suggest that there is a high probability that no actual diesel is present.

B.2 Surrogate Recoveries

The surrogate was diluted out of organo-chlorine pesticide samples. Results are not qualified when surrogates are diluted from samples.

B.3 MS/MSD Recoveries and RPDs

Matrix spike/matrix spike duplicate (MS/MSD) results are considered out of quality control (QC) acceptance limits if the mean of and/or the relative percent difference (RPD) between the MS and MSD recoveries are out of the acceptance range. In the case of the MS recovery of chromium in the soluble threshold limit concentration (STLC) analysis of chromium the recovery of 66% was below the 76% to 124% QC acceptance range. The reporting limits of non-detects were flagged “UJ”, estimated and the concentration of positive detections were flagged “J”, estimated.

B.4 Second Column Confirmation

Second column confirmation requires that the sample pass through two different calibrated graduated cylinder columns in order to confirm that a specific peak is present at the appropriate retention time (RT) on both columns. In addition, the RPD between the reported concentrations must be no more than 40. In the case of the soil sample, B-3-0-0.5, the RPD of 4, 4'-DDE exceeded 40. Consequently, the reported concentration of 4,4'-DDE was flagged "J", estimated.

B.5 Continuing Calibration Verifications (CCV)

In the case of the organochlorine analysis for soils, the CCV recovery for 4,4'-DDT was high. All detections of 4,4'-DDT in related samples were flagged "J", estimated.

In the ICP metals, in water samples the recovery of zinc was high. Reported concentrations of zinc were flagged "J", estimated

B.6 Dilutions

Samples were diluted due to the quality of the extract matrix. The effects of these dilutions were to increase the reporting limit of the diluted sample by the same factor as the dilution; to cause the surrogate recoveries to be unreliable (diluted out); and to possibly cause some analytes to be reported as non-detected due the increase of the reporting limit.

B.7 Summary

The results were all found to be usable with the qualification that some of the data is qualified as estimated. None of these data were determined to be invalid and not usable ("R" flagged). Laboratory reports having no qualifications are not referred to in this report. The validation reports are not included in this document but are maintained within the project file and are available upon request.

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

More information on AECOM and its services can be found at www.aecom.com.

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