February 9, 2016

Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Well Destruction Report**

Site: **76 Station No. 5191/5043**
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

Dear Mr. Nowell;

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call:

Walter T. Sprague
Apro LLC.
7180 Koll Center Parkway, Suite 100
Pleasanton, California 94566
Tel: (925) 931-5714
Fax: (925) 905-2746
Walter.Sprague@UnitedPacific.com

Sincerely,

APRO LLC.

WALTER SPRAGUE
Director of Retail Services

Attachment

Well Destruction Report

76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California

Alameda County Health Care Services Agency Fuel Leak Case No. RO0000219

San Francisco Bay, Regional Water Quality Control Board Case No. 01-1601

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

February 9, 2016

Prepared for:
Mr. Keith Nowell
Alameda County Health
Care Services Agency
1131 Harbor Bay Parkway,
Suite 250
Alameda, CA 94502-6577

Prepared by:
Antea®Group
11050 White Rock Road,
Suite 110
Rancho Cordova, CA 95670
+1 800 477 7411

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1.0 INTRODUCTION

Antea® Group is pleased to submit this Well Destruction Report for the referenced site in Oakland, CA (**Figure 1**). This report summarizes the results of the well destruction performed at this site on January 26, 2016. Included herein are maps, data table, well completion reports, and lab results. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Site Description

The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California **(Figure 1).** This site contains six fuel dispensers on two islands under a single canopy, three fuel underground storage tanks (USTs) on the north side of the site, a carwash facility on the west side of the site, and a station building in the central portion of the site. The current site features are shown on **Figure 2**. A summary of previous site assessment, environmental investigations, remedial activities, and sensitive receptors are presented in **Appendix A.**

1.2 Site Geology and Hydrogeology

The following sections provide a summary of the regional and site-specific geologic and hydrogeologic setting.

1.2.1 Regional Geologic Setting

The site is located on the western portion of the East Bay Plain Subbasin near the Oakland Airport. This area is primarily underlain by bay mud and artificial fill.

1.2.2 Regional Hydrogeologic Setting

According to the California Department of Water Resources' (DWR) California's Groundwater, Bulletin 118 – Update 2004, the site is located in the Santa Clara Valley Groundwater Basin – East Bay Plain Subbasin. Groundwater bearing formations in the Subbasin include the Early Pleistocene Santa Clara Formation, Late Pleistocene Alameda Formation, Early Holocene Temescal Formation, and artificial fill. East Bay Plain Subbasin has existing beneficial uses as irrigation, municipal, and domestic water supplies (DWR, 2004).

1.2.3 Site Geologic and Hydrogeologic Conditions

The site is underlain by Holocene-age bay mud. The bay mud typically consists of unconsolidated, saturated clay and sandy clay that is rich in organic material. The bay mud locally contains lenses and stringers of silt, well-sorted sand and gravel, and beds of peat. A recent monitoring and sampling event was conducted at the site on December 8, 2015. The measured depth to groundwater ranged from 3.04 feet to 8.07 feet below top of casing (TOC). The groundwater flow direction and hydraulic gradient were variable.

2.0 WELL DESTRUCTION

On January 26, 2016, well destruction activities were conducted at this site in accordance to the *Work Plan – Well Destruction and Waste Characterization* dated March 23, 2015 and an approval letter from Mr. Keith Nowell of the

Alameda County Health Care Services Agency (ACHCSA) was received by Mr. Dennis Dettloff on April 14, 2015. A copy of the approval letter is included as **Appendix B**.

2.1 Pre-Field Activities

Antea Group updated the site-specific Health and Safety Plan (HASP) in accordance with Title 8, Section 5192 of the California Code of Regulations. The HASP contained a list of emergency contacts, as well as a hospital route map to the nearest emergency facility. Drilling permits were obtained from the Alameda County Public Works Agency prior to field activities. A copy of the drilling permits is presented as **Appendix C**.

2.2 Well Destruction

On January 26, 2016, Gregg Drilling and Testing (Gregg), under supervision of an Antea Group field geologist, destroyed two (2) monitoring wells (MW-7 and MW-8) by over-drilling. A truck mounted drill-rig equipped with 8-inch outside diameter hollow-stem augers drilled out the well casing and annular material to the total constructed depths of the two monitoring wells. Subsequent to over-drilling, each borehole was backfilled with neat cement to just below ground surface. Each borehole was then capped with asphalt to match existing grade. A copy of the Department of Water Resources (DWR) Well Completion Reports is presented as **Appendix D**.

2.3 Disposal of Waste

Drill cuttings generated during soil boring advancement activities were placed into a properly labeled 55-gallon Department of Transportation (DOT) approved steel drum. A sample of the drill cuttings was collected, properly labeled, placed on ice, and submitted to a California-certified laboratory for analysis of TPHg, BTEX, and MTBE by EPA Method 8260, and CAM 17 Metals by EPA Method 6010. Chain-of-custody documentation accompanied the sample during transportation to the laboratory. The complete analytical report, COC and laboratory data validation checklist are presented as **Appendix E**. The generated waste has been profiled and will be removed from the site and disposed of at an approved waste facility.

3.0 CONCLUSIONS

Monitoring wells MW-7 and MW-8 have been destroyed.

4.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. For any reports cited that were not generated by Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

Jonathan Fillingame
Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

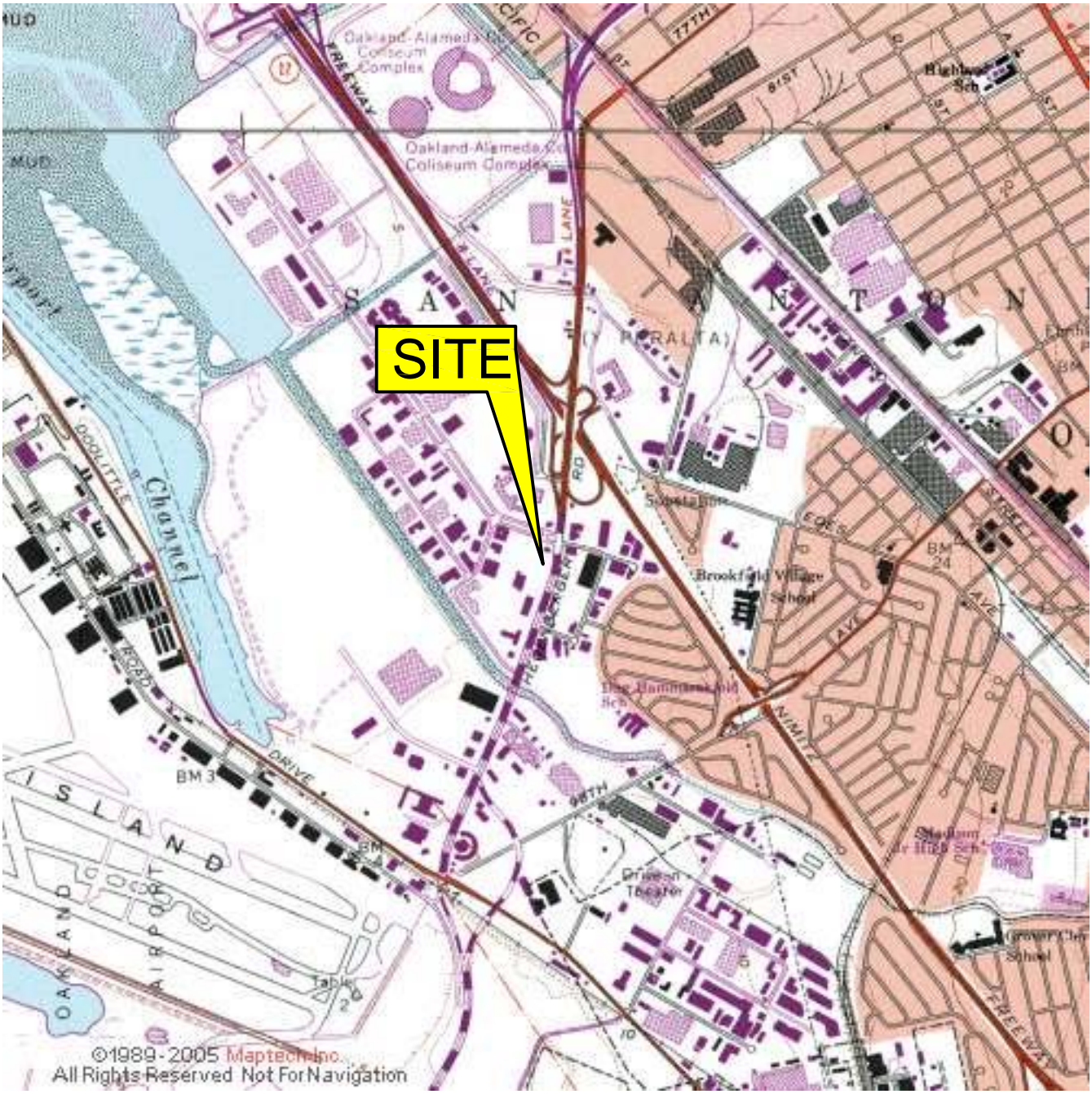
Licensed Approver:

Date: 7/9/16

Dennis S. Dettloff, P.G.
Senior Project Manager
California Registered Professional Geologist No. 7480

GeoTracker (upload)

Figures



North

0 900 1800 FT

SCALE

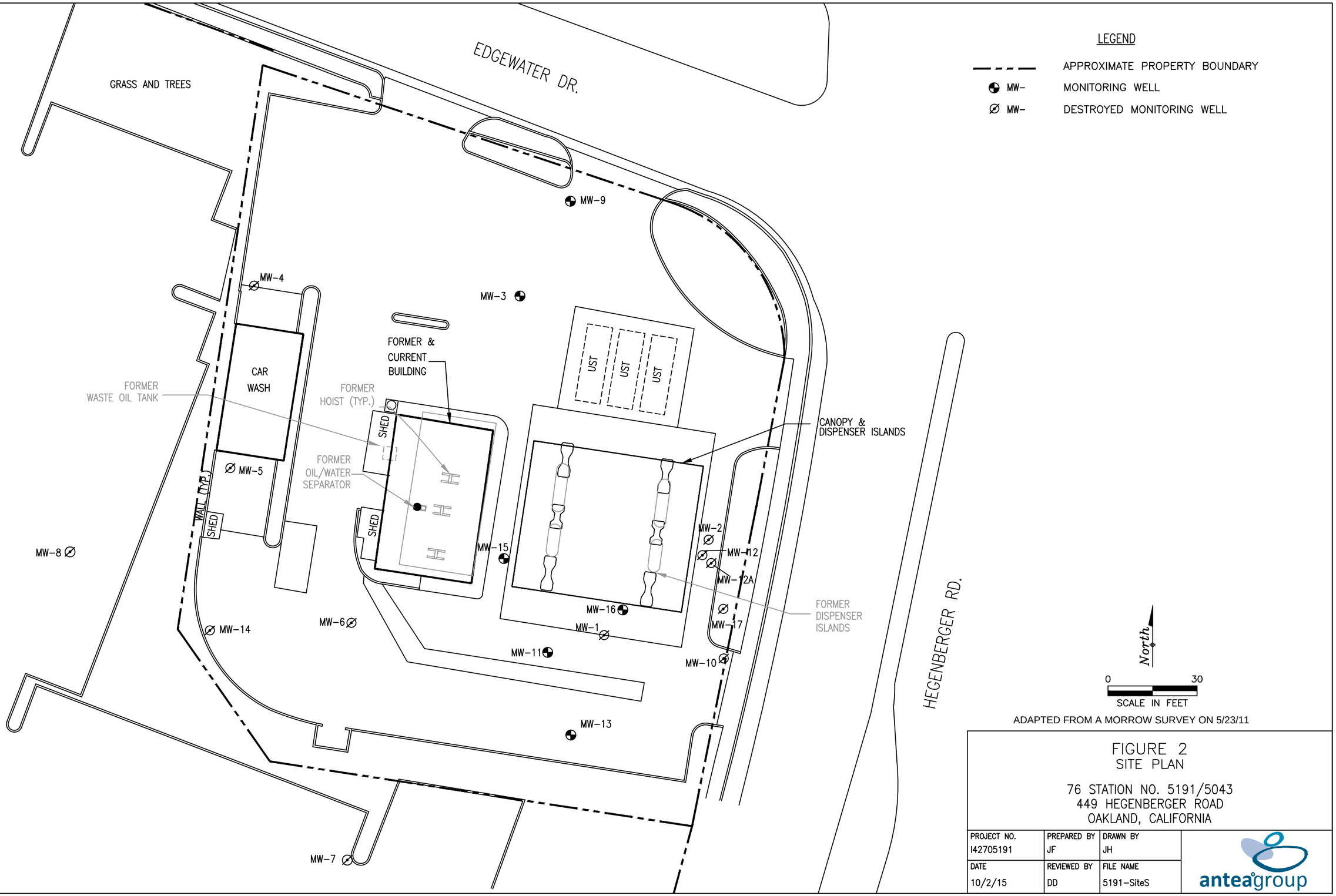
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

FIGURE 1
SITE LOCATION MAP

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	DR/JH
DATE	REVIEWED BY	FILE NAME
1/31/11	DD	5043-SiteLocator

antea group



ADAPTED FROM A MORROW SURVEY ON 5/23/11

FIGURE 2
SITE PLAN

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
10/2/15	DD	5191-SiteS

antea group

Table

Table 1
Well Construction Details
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, CA

Well I.D.	Drill Date	Well		Screen		Screen Length (feet)	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)		
Monitoring Wells							
MW-1	02/05/91	13.5	2	2.0	13.0	11.0	Destroyed (March 1995)
MW-2	02/05/91	15.0	2	3.0	15.0	12.0	Destroyed (March 1995)
MW-3	02/05/91	14.0	2	2.0	14.0	12.0	
MW-4	08/21/92	13.5	2	2.5	13.5	11.0	Destroyed (January 1995)
MW-5	08/21/92	13.5	2	2.5	13.5	11.0	Destroyed (January 1995)
MW-6	08/21/92	13.5	2	2.5	13.5	11.0	
MW-7	04/21/97	13.0	2	3.0	13.0	10.0	Destroyed (January 2016)
MW-8	04/21/97	15.0	2	3.0	15.0	12.0	Destroyed (January 2016)
MW-9	01/25/95	13.0	2	3.0	13.0	10.0	
MW-10	01/25/95	13.0	2	3.0	13.0	10.0	Destroyed (June 2014)
MW-11	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12	06/22/10	20.0	4	5.0	20.0	15.0	Destroyed (June 2014)
MW-12A	06/23/10	34.0	2	30.0	34.0	4.0	Destroyed (June 2014)
MW-13	06/22/10	15.0	2	5.0	15.0	10.0	
MW-14	05/17/11	13.0	2	3.0	13.0	10.0	
MW-15	05/17/11	13.0	2	3.0	13.0	10.0	
MW-16	05/17/11	13.0	2	3.0	13.0	10.0	
MW-17	05/18/11	13.0	2	3.0	13.0	10.0	Destroyed (June 2014)

Explanation

Wells are of poly-vinyl-chloride (PVC) construction

bgs = Below ground surface

Appendix A

Summary of Previous Environmental Investigations

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, monitoring wells MW-4 and MW-5 were destroyed by over-drilling the wells and backfilling with neat cement.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd) and benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and east on the neighboring property to a depth of 13 feet bgs. In addition, monitoring well MW-3, which was damaged during site renovation activities, was fully drilled out and reconstructed in the same borehole.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

June 2010 – Delta installed two 4-inch diameter monitoring/extraction wells, MW-11 and MW-12, and two 2-inch diameter monitoring wells, MW-12A and MW-13, at the site. Analytical results from the soil and groundwater samples collected from the MW-12 and MW-12A boring locations indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

May 2011 – Antea Group (formally Delta Consultants) installed four 2-inch diameter monitoring wells, MW-14 through MW-17, and advanced one soil boring, B-6, at the site. All four monitoring wells were installed with ten feet of screen from 3 feet bgs to 13 feet bgs. Analytical results of soil samples collected during the monitoring well installation reported TPHg concentrations ranging from 1.0 milligrams per kilogram (mg/kg) (MW-14d13) to 2,490 mg/kg (B-6d9), benzene concentrations ranging from 0.67 mg/kg (B-6d21) to 26.4 mg/kg (B-6d9), toluene concentrations ranging from 0.2 mg/kg (MW-14d10) to 73.9 mg/kg (B-6d9), ethylbenzene concentrations ranging from 0.037 mg/kg (MW-14d13) to 58.1 mg/kg (B-6d9), total xylenes concentrations ranging from 0.066 mg/kg (MW-14d13) to 230 mg/kg (B-6d9), methyl tertiary-butyl ether (MTBE) concentrations ranging from 0.015 mg/kg (MW-15d13) to 0.19 mg/kg (MW-15d8), tertiary-butyl alcohol (TBA) concentrations ranging from 0.014 mg/kg (MW-16d8 and B-6d21) to 0.16 mg/kg (MW-15d8), and lead concentrations ranging from 5.5 mg/kg (MW-16d13) to 16.3 mg/kg (MW-17d9). Diesel range organics (DRO) and DRO with silica gel concentrations were reported; however, all of the results did not match the laboratory standard for diesel. Concentrations of DRO ranged from 2.9 mg/kg (MW-17d13) to 258 mg/kg (B-6d14) and DRO with silica gel concentrations ranged from 2.5 mg/kg (MW-17d13) to 250 mg/kg (B-6d14).

March 2012 – Antea Group advanced five soil borings (HPB-1 through HPB-5) at the site. The borings were advanced using direct push technology. The borings were used to obtain a hydraulic profile of the substrate beneath the site. The data obtained during the investigation will be used to determine the best path forward in terms of remediation.

July 2013 – Antea Group advanced ten soil borings (SB-1 through SB-10) at the site. The borings were advanced using direct push technology. The borings were used to delineate petroleum hydrocarbon impacted soil around

monitoring well MW-6. Results of the investigation can be found in the *Site Investigation Report*, dated January 9, 2014.

June 2014 – Antea Group destroyed monitoring wells MW-10, MW-12, MW-12A, and MW-17 by pressure grouting. The wells were destroyed in preparation for on-site soil excavation activities.

September 2014 – Antea Group advanced two (2) cone penetration test (CPT) borings CPT-1 and CPT-2 in preparation for soil excavations on site. Soil and groundwater samples were not collected. Data from the CPT borings was used to help design shoring for excavations. Antea Group advanced three (3) off-site soil borings, SB-13 through SB-15. Soil and grab-groundwater samples were collected from the borings.

July 2015 – Antea Group destroyed on-site monitoring wells MW-6 and MW-14 in preparation for on-site soil excavation activities. On-site soil borings were advanced for waste characterization (WC-1 to WC-3) and delineate soil (SB-16 to SB-18) concentrations in the vicinity of the proposed soil excavation. Two off-site soil borings were advanced (SB-11 and SB-12) for delineation down-gradient.

January 2015 – Antea Group destroyed off-site monitoring wells MW-7 and MW-8 by drill-out.

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

Current Consultant: **Antea Group**

Appendix B

ACHCSA Approval Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 14, 2015

Walter Sprague
Pacific Convenience & Fuel
7180 Knoll Center Parkway, Suite 100
Pleasanton, CA 94566
(Sent via E-mail to WSprague@pcandf.com)

Ed Ralston
Phillips 66 Company
76 Broadway, Sacramento, CA 95818
(Sent via E-mail to: Ed.C.Ralston@p66.com)

Subject: Work Plan Review for Fuel Leak Case No. RO0000219 and GeoTracker Global ID T0600101476, UNOCAL #5043, 449 Hegenberger Road, Oakland, CA 94621

Dear Mr. Sprague and Mr. Ralston:

Alameda County Environmental Health (ACEH) has reviewed the case file, including the recently submitted document entitled *Work Plan- Well Destruction and Waste Characterization* (Work Plan), dated March 23, 2015 and prepared by Antea Group USA, Inc. (Antea) for the subject site.

The Work Plan addresses two items- the destruction of two off-site groundwater monitoring wells, identified as MW-7 and MW-8, and in-situ profiling of soil for waste characterization prior to excavation and disposal.

Technical Comments

1. Well Destruction – As described in the Work Plan, the destruction of groundwater monitoring wells MW-7 and MW-8 will be performed by over-drilling the two wells and backfilling the boreholes with neat cement to just below the ground surface. Each borehole will then be capped with asphalt to match existing grade.

   The method of well destruction meets Alameda County Public Works Agency (ACPWA), the well permitting agency, guidelines.

   However, as discussed in the February 24, 2015 meeting with representatives of ACEH, Antea, Pacific Convenience and Fuel (PC&F), and Beretta Investment Group (BIG), the method of well destruction for the two wells should also be acceptable to the property owner, BIG.

   If the well destruction methodology is acceptable to BIG, the destruction of wells MW-7 and MW-8 by the proposed method is acceptable to ACEH.

   Please provide confirmation that the well destruction methodology has been reviewed by and is acceptable to BIG. Confirmation may be presented in an E-mail correspondence by the date specified below.

2. Waste Characterization – The acceptance criteria, including analysis suite and sampling density, is a function of the receiving landfill facility. A total of three soil samples are proposed to be collected from within the two areas identified for excavation in the Corrective Action Plan (CAP). The Work Plan states one sample is required for every 500 cubic yards (cu-yds) of waste material and an estimated 1,475 cu-yds of soil will be excavated and removed for off-site disposal; hence, three samples are required to satisfy the minimum waste characterization requirements. It is unclear to ACEH if the volume of

material is based on an in-situ calculation and if a de-bulking factor was applied if the in-situ volume was used. This calculation should be confirmed with the receiving facility.

Please be aware that a contingency may require the collection of additional sample(s) should the excavated volume sufficiently exceed 1,500 cu. yds. to justify additional characterization. It is unclear to ACEH how additional waste characterizations samples will be collected when the disposal method includes direct soil loading for off-site transport.

Though the locations of the boreholes from which the samples are to be collected are depicted on Figure 3 of the Work Plan, there is no indication of the depth at which the samples will be collected for submittal for laboratory analysis, and the sample selection protocol within the length of each boring is not discussed.

Therefore ACEH requests a brief correspondence outlining the landfill acceptance criteria, the volume calculations presented to the receiving landfill and the number of samples to e recovered, and sample selection protocol within the length of each boring.

Technical Report Request

Please upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and by the schedule outlined below:

- **May 1, 2015- BIG Acceptance Confirmation E-mail** (file name: RO0000219_CORRES_L_yyyy-mm-dd)

- **May 1, 2015- Waste Disposal Criteria Confirmation** (via E-mail Correspondence) (file name: RO0000219_CORRES_L_yyyy-mm-dd)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6764 or send me an electronic mail message at keith.nowell@acgov.org.

Sincerely,

Keith Nowell

Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o=Alameda County, ou=Department of Environmental Health, email=keith.nowell@acgov.org, c=US
Date: 2015.04.14 14:34:06 -07'00'

Keith Nowell, P.G., C.HG.
Hazardous Materials Specialist

cc: Dennis Dettloff, Antea Group, 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670
(Sent via E-mail to: dennis.dettloff@anteagroup.com)
Dilan Roe (*Sent via E-mail to: dilan.roe@acgov.org*)
Keith Nowell, ACEH (*Sent via E-mail to: keith.nowell@acgov.org*)
GeoTracker, File

Appendix C

Drilling Permits

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 06/16/2015 By jamesy

Permit Numbers: W2015-0550 to W2015-0551
Permits Valid from 01/26/2016 to 01/26/2016

Application Id:	1432934388813	**City of Project Site:**	Oakland
Site Location:	433 Hegenberger Rd, Oakland, CA		
Project Start Date:	07/07/2015	**Completion Date:**	07/10/2015
Assigned Inspector:	Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com		
Extension Start Date:	01/26/2016	**Extension End Date:**	01/26/2016
Extension Count:	1	**Extended By:**	jamesy

Applicant:	Antea Group - Jonathan Fillingame 11050 White Rock Rd #110, Rancho Cordova, CA 95670	**Phone:** 916-288-0150
Property Owner:	Beretta Investment Group 39560 Stevenson Place #118, Fremont, CA 94539	**Phone:** --
Client:	PC& F 7180 Koll Ctr Pky #100, Pleasanton, CA 94566	**Phone:** 925-931-5733

	Total Due:	$794.00
Receipt Number: WR2015-0300	**Total Amount Paid:**	$794.00
Payer Name : Antea Group	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Well Destruction-Monitoring - 2 Wells
Driller: Gregg - Lic #: 485165 - Method: hstem **Work Total: $794.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2015-0550	06/16/2015	10/05/2015	MW7	8.00 in.	2.00 in.	2.00 ft	13.00 ft	2S/3W21Q1 1	No Records	No Records
W2015-0551	06/16/2015	10/05/2015	MW8	8.00 in.	2.00 in.	2.00 ft	15.00 ft	2S/3W21Q1 2	No Records	No Records

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

Appendix D

Well Completion Reports

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Appendix E

Certified Laboratory Analytical Report and Data Validation Form

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WORK ORDER NUMBER: 16-01-1738

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Antea Group

Client Project Name: I42705191 0001

Attention: Dennis Dettloff
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Approved for release on 02/03/2016 by:
Terri Chang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: I42705191 0001
Work Order Number: 16-01-1738

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Work Order Narrative

Work Order: 16-01-1738 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/27/16. They were assigned to Work Order 16-01-1738.

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.

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Sample Summary

Client:	Antea Group	Work Order:	16-01-1738
	11050 White Rock Rd. Suite# 110	Project Name:	I42705191 0001
	Rancho Cordova, CA 95670-6001	PO Number:	
		Date/Time Received:	01/27/16 10:00
		Number of Containers:	1
Attn:	Dennis Dettloff		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Waste Soil	16-01-1738-1	01/26/16 14:30	1	Solid

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Analytical Report

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: I42705191 0001

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Soil	**16-01-1738-1-A**	**01/26/16 14:30**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 13:31**	**160127L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	1.60	0.769	1.03	
Barium	16.2	0.513	1.03	
Beryllium	ND	0.256	1.03	
Cadmium	ND	0.513	1.03	
Chromium	4.15	0.256	1.03	
Cobalt	3.74	0.256	1.03	
Copper	3.51	0.513	1.03	
Lead	4.94	0.513	1.03	
Molybdenum	ND	0.256	1.03	
Nickel	6.06	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	5.07	0.256	1.03	
Zinc	51.9	1.03	1.03	

Return to Contents

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

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Analytical Report

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: I42705191 0001

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-22294**	**N/A**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 11:53**	**160127L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	ND	0.746	0.995	
Barium	ND	0.498	0.995	
Beryllium	ND	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	ND	0.249	0.995	
Cobalt	ND	0.249	0.995	
Copper	ND	0.498	0.995	
Lead	ND	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	ND	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	ND	0.249	0.995	
Zinc	ND	0.995	0.995	

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

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Analytical Report

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Project: I42705191 0001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Soil	**16-01-1738-1-A**	**01/26/16 14:30**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 20:08**	**160129L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-1906**	**N/A**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 19:42**	**160129L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

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

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Analytical Report

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: I42705191 0001

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Soil	**16-01-1738-1-A**	**01/26/16 14:30**	**Solid**	**GC/MS W**	**01/27/16**	**01/28/16 23:44**	**160128L041**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Gasoline Range Organics (C6-C12)	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	115	63-141	
1,2-Dichloroethane-d4	128	62-146	
Toluene-d8	103	80-120	
1,4-Bromofluorobenzene	100	60-132	
Toluene-d8-TPPH	102	87-111	

Method Blank	099-12-798-1966	N/A	Solid	GC/MS W	01/28/16	01/28/16 22:50	160128L041

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Gasoline Range Organics (C6-C12)	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	116	63-141	
1,2-Dichloroethane-d4	131	62-146	
Toluene-d8	101	80-120	
1,4-Bromofluorobenzene	101	60-132	
Toluene-d8-TPPH	101	87-111	

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

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Quality Control - Spike/Spike Duplicate

Antea Group		Date Received:	01/27/16
11050 White Rock Rd. Suite# 110		Work Order:	16-01-1738
Rancho Cordova, CA 95670-6001		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: I42705191 0001			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1742-2	**Sample**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 12:50**	**160127S02**
16-01-1742-2	**Matrix Spike**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 12:52**	**160127S02**
16-01-1742-2	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 12:53**	**160127S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	8.468	34	6.745	27	50-115	23	0-20	3,4
Arsenic	17.17	25.00	46.71	118	46.69	118	75-125	0	0-20	
Barium	56.05	25.00	88.13	128	92.92	147	75-125	5	0-20	3
Beryllium	0.4374	25.00	28.89	114	29.52	116	75-125	2	0-20	
Cadmium	0.6212	25.00	27.05	106	27.48	107	75-125	2	0-20	
Chromium	47.67	25.00	72.00	97	73.71	104	75-125	2	0-20	
Cobalt	8.110	25.00	35.12	108	39.81	127	75-125	13	0-20	3
Copper	41.61	25.00	73.75	129	70.86	117	75-125	4	0-20	3
Lead	20.46	25.00	55.91	142	51.65	125	75-125	8	0-20	3
Molybdenum	12.86	25.00	37.84	100	36.05	93	75-125	5	0-20	
Nickel	36.91	25.00	63.83	108	72.30	142	75-125	12	0-20	3
Selenium	ND	25.00	26.94	108	29.51	118	75-125	9	0-20	
Silver	0.2986	12.50	14.39	113	14.62	115	75-125	2	0-20	
Thallium	ND	25.00	14.26	57	12.68	51	75-125	12	0-20	3
Vanadium	57.74	25.00	83.04	101	86.21	114	75-125	4	0-20	
Zinc	130.7	25.00	175.4	4X	163.2	4X	75-125	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Antea Group		Date Received:	01/27/16
11050 White Rock Rd. Suite# 110		Work Order:	16-01-1738
Rancho Cordova, CA 95670-6001		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: I42705191 0001			Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1742-2	**Sample**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 19:46**	**160129S02**
16-01-1742-2	**Matrix Spike**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 19:48**	**160129S02**
16-01-1742-2	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 19:51**	**160129S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8139	97	0.8122	97	71-137	0	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Project: I42705191 0001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Waste Soil	**Sample**	**Solid**	**GC/MS W**	**01/27/16**	**01/28/16 23:44**	**160128S015**
Waste Soil	**Matrix Spike**	**Solid**	**GC/MS W**	**01/27/16**	**01/29/16 00:38**	**160128S015**
Waste Soil	**Matrix Spike Duplicate**	**Solid**	**GC/MS W**	**01/27/16**	**01/29/16 01:04**	**160128S015**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04496	90	0.04405	88	61-127	2	0-20	
Ethylbenzene	ND	0.05000	0.04712	94	0.04780	96	57-129	1	0-22	
Toluene	ND	0.05000	0.04675	93	0.04664	93	63-123	0	0-20	
p/m-Xylene	ND	0.1000	0.09681	97	0.09457	95	70-130	2	0-30	
o-Xylene	ND	0.05000	0.04656	93	0.04558	91	70-130	2	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04809	96	0.05018	100	57-123	4	0-21	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Antea Group		Date Received:	01/27/16
11050 White Rock Rd. Suite# 110		Work Order:	16-01-1738
Rancho Cordova, CA 95670-6001		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: I42705191 0001			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-22294	**LCS**	**Solid**	**ICP 7300**	**01/27/16**	**01/28/16 11:54**	**160127L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.10	96	80-120	73-127	
Arsenic	25.00	23.95	96	80-120	73-127	
Barium	25.00	26.04	104	80-120	73-127	
Beryllium	25.00	24.20	97	80-120	73-127	
Cadmium	25.00	25.31	101	80-120	73-127	
Chromium	25.00	25.45	102	80-120	73-127	
Cobalt	25.00	26.49	106	80-120	73-127	
Copper	25.00	25.68	103	80-120	73-127	
Lead	25.00	26.29	105	80-120	73-127	
Molybdenum	25.00	24.77	99	80-120	73-127	
Nickel	25.00	26.58	106	80-120	73-127	
Selenium	25.00	23.62	94	80-120	73-127	
Silver	12.50	12.29	98	80-120	73-127	
Thallium	25.00	26.23	105	80-120	73-127	
Vanadium	25.00	24.38	98	80-120	73-127	
Zinc	25.00	25.21	101	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Antea Group		Date Received:	01/27/16
11050 White Rock Rd. Suite# 110		Work Order:	16-01-1738
Rancho Cordova, CA 95670-6001		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: I42705191 0001			Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-1906	**LCS**	**Solid**	**Mercury 05**	**01/29/16**	**01/29/16 19:44**	**160129L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8374	100	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Antea Group
11050 White Rock Rd. Suite# 110
Rancho Cordova, CA 95670-6001

Project: I42705191 0001

Date Received: 01/27/16
Work Order: 16-01-1738
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-798-1966	**LCS**	**Solid**	**GC/MS W**	**01/28/16**	**01/28/16 21:29**	**160128L041**
099-12-798-1966	**LCSD**	**Solid**	**GC/MS W**	**01/28/16**	**01/28/16 21:56**	**160128L041**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.05045	101	N/A	N/A	78-120	N/A	0-20	
Ethylbenzene	0.05000	0.05509	110	N/A	N/A	76-120	N/A	0-20	
Toluene	0.05000	0.05299	106	N/A	N/A	77-120	N/A	0-20	
p/m-Xylene	0.1000	0.1091	109	N/A	N/A	75-125	N/A	0-25	
o-Xylene	0.05000	0.05239	105	N/A	N/A	75-125	N/A	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05848	117	N/A	N/A	77-120	N/A	0-20	
Gasoline Range Organics (C6-C12)	1.000	1.045	105	1.060	106	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-01-1738 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
GC/MS / EPA 8260B	EPA 5030C	163	GC/MS W	2

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Glossary of Terms and Qualifiers

Work Order: 16-01-1738 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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7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

SRG # / Lab No. **16-01-1738**

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Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐Yes ☐No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261 / Fax #:	Global ID: T0600101476
Project #: I42705191 0006 / P.O. #:	EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com
Project Name: I42705191 0001	Sampler Signature: Jonathan Fillingame
Project Address: 449 Hegenberger Road, Oakland, CA	

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	Analysis Request: EPA 8260B TPHg, Btex, MTBE,	Analysis Request: EPA 6010 - CAM 17	TAT
Waste Soil		1/26/16	14:30		X						X		X	X	X	☑ 1 wk

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☑ 1 wk

For Lab Use Only

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	1/26/16	16:00	Jo O'Malley ECI 1/26/16 1800
Relinquished by: Jo O'Malley TO GSO	Date 1/26/16	Time 1730	Received by:
Relinquished by:	Date 01/27/16	Time 1000	Received by Laboratory: EZ

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	herm. ID	Coolant Present
					Yes / No

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GSO

800-322-5555 www.gso.com

1738

Ship From
CAL SCIENCE- CONCORD
ALAN KEMP
5063 COMMERCIAL CIRCLE
#H
CONCORD, CA 94520

Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:
TERRA PACIFIC GROUP
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 530702914

NPS

ORC

A

GARDEN GROVE

D92845A

47521012

Print Date: 1/26/2016 2:43 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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WORK ORDER NUMBER: 16-01- 1736

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Antea Group

DATE: 01 / 27 / 2016

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

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 1.4 °C (w/ CF): 1.7 °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: BG

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: BG

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: SR

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			
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 ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (3) ☐ 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, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: SR

Reviewed by: TB

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Is the Data Valid? (circle) Yes / No

Preservation Temperature (if Known): 1.7 °C

Antea Group Lab Validation Sheet

Project/Client: COP/ELT
Project #: I42705191
Date of Validation: 2/5/16 **Date of Analysis:** 1/28/16 **Sample Date:** 1/26/16
Completed By: Jon F. **Signature:** Jonathan Fillingame
Analytical Lab Used and Report # (if any): Calscience 16-01-1738

	Circle or Highlight Yes/No below	
1. Was the analysis the one requested?	Yes / No	
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	Yes / No	
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?	Yes / No	
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?	Yes / No	
5. Were Laboratory blanks performed, if so, were they below non-detect?	Yes / No	
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	Yes / No	
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	Yes / No	
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	Yes / No	N/a
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?	Yes / No	
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	Yes / No	
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?	Yes / No	

If any answer is no, explain why and what corrective action was taken:

9. 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. (Antimony, Barium, Cobalt, Copper, Lead, Nickel, and Thallium)
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. (Zinc)
11. The MS/MSD RPD was out of control due to suspected matrix interference. (Antimony)