Remediation Management Services Company

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Date: November 29, 2017

To: Ms. Karel Detterman
Alameda County Environmental Health Department
1131 Harbor Bay Parkway
Alameda, California 94602

Re: Site Investigation Report and Closure Request
Arco Station No. 596-A
1900 Webster Street
Oakland, California

Dear Ms. Detterman:

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACEH's FTP server and the SWRCB's GeoTracker website.

If you have any questions or need additional information, please contact myself or Mr. Bill Patzelt (Antea Group) at (916) 389-6481.

Sincerely,

Chuck Carmel
Operations Project Manager
Remediation Management Services Company
An affiliate of Atlantic Richfield Company

Site Investigation Report and Closure Request

ARCO Station No. 596-A
1900 Webster Street
Oakland, California

Alameda County Environmental Health
LOP Site No. RO0003100
Regional Water Quality Control Board - San Francisco Bay Region (Region 2),

GeoTracker Global ID No. T10000004348

Antea Group Project No. 0596ADA171

November 29, 2017

Prepared for:
Ms. Karel Detterman
Alameda County Environmental Health
1131 Harbor Bay Pkwy
Alameda, CA 94602

Prepared by:
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Site Investigation Report and Closure Request

Arco Station No. 596-A
1900 Webster Street
Oakland, California

1.0 INTRODUCTION

Antea®Group is has prepared this *Site Investigation Report and Closure Request* for the referenced Site located at 1900 Webster Street in Oakland, CA (Site) (**Figure 1**). The purpose of this report is the present the data obtained during the recent off-site investigation to supplement the Broadbent & Associates, Inc. (Broadbent) *Conceptual Site Model, Sensitive Receptor Survey, and Case Closure Request Addendum*. This report describes the advancement of one (1) soil boring and three (3) hydropunch locations at Snow Park in the assumed downgradient direction from the Site towards Lake Merritt.

Snow Park is located on Harrison Street between 19th and 20th Streets approximately 370 feet east of the Site. The soil boring and hydropunch locations were located at the west side of Snow Park approximately 24 to 40 feet from Harrison Street. The objective of this investigation was to confirm that the groundwater plume from the Site does not extend to Snow Park. This work was performed as detailed in Antea Group's *Site Assessment Work Plan - Snow Park* dated September 11, 2017 and conditionally approved by the Alameda County Environmental Health (ACEH) in their email dated September 18, 2017 (**Appendix A**).

This report has received a technical review by Mr. Bill Patzelt (Antea Group) California Professional Geologist No. 9465.

2.0 SITE DESCRIPTION

The Site is located at the northeastern corner of Webster Street and 19th Street in Oakland, California (**Figure 1**). Between 1940 and 1966, the Site was an ARCO-branded service station. A commercial building is currently onsite and is occupied by Lake Merritt Dental. Environmental investigations at the Site began in May 2011 when AEI Consultants (AEI) conducted a Phase I Environmental Site Assessment. In July 2011, AEI advanced three (3) soil borings (SB-1 through SB-3). In August 2012, SCHUTZE & Associates, Inc. advanced two (2) soil borings (B-1 and B-2). In 2013, P&D Environmental, Inc advanced eight (8) soil borings (B-4 through B-8, B-11, B-13, and B-14). In 2015, Broadbent advanced seven (7) soil borings (SB-4 through SB-10) and four (4) soil vapor wells SG-1A, SG-1B, SG-2A, and SG-2B. **Figure 2** shows the locations previous on and off-site investigations. The investigation at Snow Park described in this report is shown on **Figure 3**.

Please refer to **Appendix B** for additional Site information and for a history of the environmental investigations and remedial actions. Historical soil data can be found in **Table 1** and groundwater data in **Table 2**.

3.0 SUMMARY OF SITE HYDROGEOLOGIC CONDITIONS

3.1 Site Geology

Review of **Figure 1** shows that the topography at the Site slopes to the north-northeast, and that Lake Merritt is located approximately 850 feet to the east of the Site at a surface elevation that is approximately 25 feet lower than the subject Site. The slope of the ground surface at the subject Site is consistent with the groundwater flow direction identified at 1721 Webster Street (Douglas Parking Co, T0600100140) located approximately 400 feet upgradient of the subject Site. The subsurface materials encountered at the Site from previously logged boreholes B4 through B14 consisted predominantly of silty or clayey sand and fine sand, with lesser amounts of silt and clay encountered in each borehole location shown on **Figure 2**.

Snow Park boring SPB-1 consisted of silty and clayey sand to 12 feet below ground surface (bgs) and clay from 12 to 24 feet bgs except for 6 inches of clayey sand and poorly graded sand starting at 15 feet bgs. The location of Snow Park boring SPB-1 is shown on **Figure 3**.

3.2 Site Hydrogeology

The Site is located within the Calwater Watershed – South Bay – East Bay Cities (204.20) and DWR Groundwater Sub-Basin – Santa Clara Valley – East Bay Plain (2-9.04). Groundwater at the Site was noted while drilling in each of boreholes B5, B6 and B8 at a depth of 18.0, 17.5 and 17.0 feet bgs, respectively. The measured depth to water in boreholes B5, B6 and B8 prior to groundwater sample collection was 16.7, 16.6 and 15.6 feet, respectively.

At Snow Park, groundwater was evident during soil boring at approximately 15 feet bgs and stabilized at depth of 13 feet bgs in Snow Park boring SPB-1 which was advanced to 24 feet bgs. For hydropunch boring HP-1, HP-2, and HP-3, which were advanced to 20 feet bgs, groundwater stabilized at 16.5, 18, and 19 feet bgs, respectively.

Groundwater flow directions from nearby sites in the area are shown on **Figure 4**.

4.0 BORING AND SAMPLING ACTIVITIES

4.1 Permitting, Utility Notification, and Borehole Clearance

Prior to commencing field activities, Antea Group prepared a Health and Safety Plan in accordance with state and federal requirements. Antea Group obtained drilling permits, for the advancement of one (1) soil boring and three (3) hydropunch borings from the Alameda County Public Works Agency ACPWA (**Appendix C**). Antea Group also inquired the City regarding whether an encroachment permit from the City of Oakland was necessary for this work. Officials at the City of Oakland informed Antea Group that they did not need an encroachment permit for the scope of work if all the work was on Snow Park property, as the work did not extent into the street or sidewalk, and Antea

Group had verbal permission form the City personnel at Snow Park. The City of Oakland is using a portion of Snow Park to stage equipment and has temporary offices set up onsite as part of ongoing upgrades to the Lake Merritt Master Plan. Antea Group received permission from City of Oakland personnel at Snow Park and coordinated access to their staging area for the boring and hydropunch work. Prior to drilling, Underground Service Alert (USA) was notified, as required by law, and a private utility locator was employed to clear each hydropunch location for underground utilities. In addition, each hydropunch location was cleared to 6.5 feet bgs using a hand auger per client safety specifications.

4.2 Soil Boring

On October 25, 2017, Cascade Drilling, under the supervision of an Antea Group geologist advanced one soil borings (SPB-1) advanced at Snow Park, which is between the Site and Lake Merritt (**Figure 3**). The boring was advanced using direct-push technology and intended to provide general lithology at Snow Park and determine when first water was encountered for the three hydropunch borings. The soil samples were screened for volatile organic compounds (VOC's) using a pre-calibrated photo-ionization detector (PID). Soil encountered during drilling was closely evaluated for moisture content and lithology and soil samples collected from the boring were logged under the supervision a California registered professional geologist using the Unified Soil Classification System (USCS). A copy of the boring log is presented as **Appendix D**. Upon completion of the soil boring, the boring was backfilled with neat cement per ACPWA specifications to 2 feet bgs, backfilled with compacted cuttings, and finished to match the existing surface grade.

As directed in the September 18, 2017 letter from ACEH, no soil samples were required for this Site investigation. Historical soil analytical data can be found in **Table 1**.

4.3 Hydropunch Borings

Three hydropunch borings (HP-1 through HP-3) were advanced at Snow Park approximately 370 feet east of the Site (**Figure 3**) to assess any potential contamination in the direction of Lake Merritt and/or the water supply well located in the south-eastern portion of Snow Park. Depth-discrete hydropunch water samples were collected 2 to 3 feet below the water table. The intervals at Snow Park started just below first water at 16.5 to 20, 18 to 20, and 19 to 20 feet bgs in hydropunch borings HP-1, HP-2, and HP-3, respectively.

The grab-groundwater samples collected were also submitted with chain-of-custody (COC) documentation to TestAmerica Laboratories, Inc. (TestAmerica), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 2706CA) located in Irvine, CA. The grab groundwater samples were analyzed for volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl-tert butyl ether (MTBE), tert-butyl alcohol (TBA), tert-amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and Naphthalene by Environmental Protection Agency (EPA) Method 8260B, total petroleum hydrocarbons (GRO) by EPA Method 8260B. The laboratory analytical report is presented as **Appendix E**.

Upon completion, the borings were backfilled with neat cement to 2 feet bgs, backfilled with compacted cuttings and finished to match the existing surface grade.

4.4 Quality Assurance / Quality Control

Antea Group's Quality Assurance / Quality Control (QA/QC) measures included a detailed QA/QC data validation check on the Test America analytical report for the October 2017 Site investigation. Antea Group's laboratory data validation checklist, the Test America analytical report, and COC are presented as **Appendix E**.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – no qualifiers
Are the data valid for their intended purpose?	Yes, the data are valid

4.5 Disposal of Drill Cuttings and Wastewater

Wastewater and waste soil generated from utility clearance, purging, and/or equipment decontamination activities associated with the advancement of the soil borings, was placed into appropriately labeled 55-gallon Department of Transportation (DOT) approved steel drums. One drum of soil cuttings and one drum of decontamination water are temporarily stored on-site. The drummed soil cuttings and wastewater were transported of the under an appropriate waste manifest based on the classification of the waste. Completed waste manifests are presented as **Appendix F**.

5.0 RESULTS OF THE INVESTIGATION

5.1 Soil Screening Results

As directed by ACEH, no soil samples were collected for analysis from soil boring SPB-1. PID readings were taken from the soil every foot form surface to total depth 24 feet bgs. PID readings did not indicate the presence of hydrocarbons in SPB-1. Historical soil analytical data can be found in **Table 1**.

5.2 Hydropunch Grab Groundwater Analytical Results

One depth discrete hydropunch groundwater sample was collected from each hydropunch location, HP-1, HP-2 and HP-3. The samples were submitted to Test America for analysis. The results of the analysis showed that there were no detections of any analyte above the laboratory reporting limits.

The grab groundwater/hydropunch analytical results are presented in **Table 2** and on **Figure 5**. Historical TPHg isoconcentration map is found in **Figure 6**. A copy of the laboratory report, chain-of-custody documentation, and a laboratory validation sheet are presented as **Appendix E**.

5.3 Discussion

Previous investigations at the Site and at other sites in the area indicate that groundwater flow near the Site ranges from north to east (**Figure 4**). ACEH requested the offsite investigation at Snow Park to confirm that contamination at the Site does not affect potential offsite receptors, specifically the Snow Park irrigation well or Lake Merritt. Field data collected during the installation of SPB-1 did not indicated offsite contamination. The analytical results from the groundwater collected from the three hydropunch locations at Snow Park indicate that there is no hydrocarbon impact of groundwater.

Although no records of the original release exist, the Site was historically occupied by a gasoline service station from 1940 to 1966. Due to age of the release, which is assumed to have occurred more than 51 years ago, the residual gasoline hydrocarbon plume at the Site is most likely decreasing or stable. This degrading plume is at least 400 feet from the closest water supply well or body of water, as detailed in Broadbent Case Closure requests (May 26, 2016 and August 25, 2016) and the Technical Memo (June 1, 2017). The previously assumed plume length at the Site is estimated to be approximately 100 feet as measured from the August 26, 2016 Broadbent report which was measured from B-1 to SB-7. Based on the information collected during the assessment at Snow Park (HP-1, HP-2, and HP-3), it is reasonable to infer that the maximum possible plume length is 470 feet (**Figure 6**). It should be noted that data presented in **Figure 6** was collected between 2011 (SB-3) and 2017 (HP-1 through HP-3) and was used for maximum plume estimation. As stated in the Technical Memo (June 1, 2017), Antea Group referenced *Section 2.3 Table 1 (below) of the SWRCB's Technical Justification for Groundwater Media-Specific Criteria.*

Table 1: Plume characteristics reported by Shih et. al. (2004).

Constituent (and plume limit concentration)	Average Plume Length (feet)	90th Percentile Plume Length (feet)	Maximum Plume Length (feet)
Benzene (5 µg/l)	198	350	554
MTBE (5 µg/l)	317	545	1,046
TPHg (100 µg/l)	248	413	855

Notes:
1. Plume lengths were measured from the source area.
2. Total petroleum hydrocarbons as gasoline (TPHg) is shown for comparison purposes only. The Policy does not set criteria for TPH.
3. Constituent concentrations measured in micrograms per liter (µg/l).

The current estimated TPHg plume length from the Site is assumed to be between 100 – 470 feet, which is above the 90th percentile plume length. Although the plume onsite is not defined in the immediate vicinity, it is Antea Group's opinion that the plume is likely less than the "Average Plume Length" of 248-feet. This assumption is based on the age of the plume and natural attenuation conditions that exist at the site and the contamination remains stable and/or decreasing. The new information collected during this site assessment did not change the existing site

conceptual model. Although the current plume does not meet any the first four Groundwater-Specific Criteria of the Low Threat Closure Policy, it is Antea Group's opinion that the Site should be considered under Criteria 5: specific conditions pose a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame. It should be noted that all existing contamination is below applicable Low Threat Closure policy criteria and all offsite data from Snow Park is below laboratory reporting limits.

6.0 CONCLUSION AND RECOMMENDATION

Based on the results of this investigation, none of the data collected during the offsite investigation indicated the presence of groundwater contamination at Snow Park. This information was the last impediment to closure and the existing site conceptual model did not change based on the new information collected during this site investigation. Therefore, Antea Group recommends that the environmental case against the Site be closed.

7.0 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. 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 Date: 11/29/2017

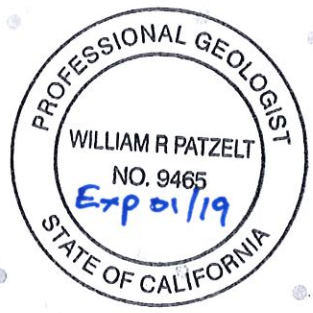
Jonathan Fillingame
Project Professional

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.

Approver:

W R Date: 11/29/17

Bill Patzelt, P.G. No. 9465
Project Manager



Tables

Table 1
Historical Soil Analytical Data
ARCO Station No. 596-A
1900 Webster Street, Oakland, California

Sample Name	Date	Sample Depth (ft bgs)	Total Depth of Boring (ft bgs)	TPHg / GRO (mg/kg)	TPHd* (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Naphthalene (mg/kg)
Inside the Building Footprint Analytical															
B1-8	8/22/2012	8	18	<1.0	**5**	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B2-6	8/22/2012	6	16.5	<1.0	**1.8**	<0.005	<0.005	<0.005	**0.012**	<0.05	--	--	--	--	--
B4-4.5	8/28/2013	4.5	20	<1.0	**1.9**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B4-9.5	8/28/2013	9.5	20	<1.0	**1.6**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B4-14.5	8/28/2013	14.5	20	<1.0	**1.2**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B5-5	10/2/2013	5	19	<1.0	**1.5**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B5-9.5	10/2/2013	9.5	19	<1.0	<4.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B5-14.5	10/2/2013	12.5	19	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	0.015
B6-5	10/2/2013	5	20	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B6-9.5	10/2/2013	9.5	20	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B6-14.5	10/2/2013	14.5	20	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B7-5	10/9/2013	5	13	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B7-9.5	10/9/2013	9.5	13	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B7-13	10/9/2013	13	13	**500**	**1200**	<2.0	<.2.0	**5.7**	**43**	<2.0	--	--	--	--	**18**
B8-5.0	10/2/2013	5	18	<1.0	**1.5**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B8-9.5	10/2/2013	9.5	18	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B8-14.5	10/2/2013	14.5	18	<1.0	**2.2**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B11-5	10/9/2013	5	15	<1.0	**3.3**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B11-9.5	10/9/2013	9.5	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B11-14.5	10/9/2013	14.5	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B13-5	10/2/2013	5	13	<1.0	**1.6**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B13-9.5	10/2/2013	9.5	13	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B14-5	10/9/2013	5	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B14-9.5	10/9/2013	9.5	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	<0.0050
B14-14.5	10/9/2013	14.5	15	**4.1**	**4.3**	<0.0050	<0.0050	**0.024**	**0.14**	<0.0050	--	--	--	--	**0.11**
Outside the Building Footprint to the East of the Property															
SB-3-16	7/20/2011	16	24	**8.3**	**6.5**	<0.005	**0.041**	<0.005	**0.04**	<0.05	--	--	--	--	--
SB-3-20	7/20/2011	20	24	**42**	**8.7**	<0.050	<0.050	**0.06**	**0.12**	<0.50	--	--	--	--	--
SB-5-3	2/3/2015	3	25	<0.40	<4.9	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.099	<0.0050	<0.0050
SB-5-7	2/3/2015	7	25	<0.39	**5.3**	<0.0019	<0.0020	<0.0019	<0.0039	<0.0049	<0.0049	<0.0049	<0.097	<0.0049	<0.0049
SB-6-3	2/3/2015	3	25	<0.40	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.10	<0.0050	<0.0050
SB-6-7	2/3/2015	7	25	<0.38	<5.0	<0.0019	<0.0019	<0.0019	<0.0038	<0.0047	<0.0047	<0.0047	<0.095	<0.0047	<0.0047
SB-6-17.5	2/3/2015	17.5	25	<0.38	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.10	<0.0050	<0.0050
SB-6-21.5	2/3/2015	21.5	25	**4.0**	**5.2**	<0.0020	<0.0020	**0.014**	**0.012**	<0.0050	<0.0050	<0.0050	<0.099	<0.0050	**0.012**
SB-6-24	2/3/2015	24	25	**47**	<9.9	<0.0098	<0.0098	<0.0098	<0.020	<0.025	<0.025	<0.025	<0.49	<0.025	<0.025
SB-7-3	2/3/2015	3	25	<0.38	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.10	<0.0050	<0.0050
SB-7-7	2/3/2015	7	25	<0.38	**6.3**	<0.0019	<0.0019	<0.0019	<0.0038	<0.0047	<0.0047	<0.0047	<0.094	<0.0047	<0.0047
SB-7-25	2/3/2015	25	25	**6.8**	<5.0	<0.0097	<0.0097	<0.0097	<0.019	<0.024	<0.024	<0.024	<0.49	<0.024	<0.024
SB-8-3	2/3/2015	3	22	<0.40	<5.0	<0.0020	<0.0020	<0.0020	<0.0039	<0.0049	<0.0049	<0.0049	<0.098	<0.0049	<0.0049
SB-8-7	2/3/2015	7	22	<0.38	<5.0	<0.0019	<0.0019	<0.0019	<0.0039	<0.0049	<0.0049	<0.0049	<0.097	<0.0049	<0.0049

Table 1
Historical Soil Analytical Data
ARCO Station No. 596-A
1900 Webster Street, Oakland, California

Sample Name	Date	Sample Depth (ft bgs)	Total Depth of Boring (ft bgs)	TPHg / GRO (mg/kg)	TPHd* (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Naphthalene (mg/kg)
SB-1A-3.5	2/4/2015	3.5	3.5	<0.38	<5.0	<0.0020	<0.0020	<0.0020	<0.0039	<0.0049	<0.0049	<0.0049	<0.098	<0.0049	<0.0049
SB-1B-3	2/4/2015	3	5.5	<0.39	<4.9	<0.0019	<0.0019	<0.0019	<0.0038	<0.0047	<0.0047	<0.0047	<0.094	<0.0047	<0.0047
SB-2A-3.5	2/4/2015	3.5	3.5	<0.40	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.099	<0.0050	<0.0050
SB-2B-3.5	2/4/2015	3.5	5.5	<0.39	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0050	<0.0050	<0.10	<0.0050	<0.0050
Outside the Building Footprint to the South and West															
SB-1-16	7/20/2011	16	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
SB-2-16	7/20/2011	16	20	<1.0	**7.7**	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
SB-2-18	7/21/2011	18	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
SB-4-3	2/2/2015	3	25	<0.39	<4.9	<0.0020	<0.0020	<0.0020	<0.0039	<0.0049	<0.0049	<0.0049	<0.098	<0.0049	<0.0049
SB-4-7	2/2/2015	7	25	<0.39	<5.0	<0.0020	<0.0020	<0.0020	<0.0039	<0.0049	<0.0049	<0.0049	<0.098	<0.0049	<0.0047
SB-9-3	2/2/2015	3	25	<0.38	<5.0	<0.0019	<0.0019	<0.0019	<0.0037	<0.0047	--	--	--	--	<0.0047
SB-9-7	2/2/2015	7	25	<0.39	<5.0	<0.0020	<0.0020	<0.0020	<0.0039	<0.0049	--	--	--	--	<0.0049
SB-9-17.5	2/2/2015	17.5	25	<0.39	<5.0	<0.0025	<0.0019	<0.0020	<0.0040	<0.0050	--	--	--	--	<0.0050
SB-10-3	2/2/2015	3	20	<0.39	<5.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	--	--	--	--	<0.0050
SB-10-7	2/2/2015	7	20	<0.40	**5.0**	<0.0020	<0.0020	<0.0020	<0.0050	<0.0050	--	--	--	--	<0.0050
SB-10-19	2/2/2015	19	20	<0.39	<5.0	0.0025	<0.0019	<0.0019	<0.0048	<0.0048	--	--	--	--	<0.0048
LTCP 0 to 5 feet				--	--	8.2	--	89	--	--	--	--	--	--	45
LTCP 5 to 10 feet				--	--	12	--	134	--	--	--	--	--	--	45
LTCP Utility workers 0 to 10 feet				--	--	14	--	314	--	--	--	--	--	--	219
Tier 1 ESL				100	230	0.044	2.9	1.4	23,000	0.023	0.075	--	--	--	0.033
Basis for Tier 1 ESL				Nuis/Odor	Dir Esp	Leaching	Leaching	Leaching	Dir Exp	Leaching	Leaching	--	--	--	Leaching

Notes:
No analytical data collected for B3, B9, B10, and B12 due to refusal at shallow depths.
All analytical results are in mg/kg
-- = No analytical data
TPHg- Total petroleum hydrocarbons as gasoline, also known as Gasoline Range Organics (GRO)
MTBE- Methyl tertiary-butyl ether
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether
TBA- Tertiary-butyl alcohol
Bold - Above the laboratory's indicated reporting limit
< - Below the laboratory's indicated reporting limit

Table 2
Historical Grab Groundwater Analytical Data
ARCO Station No. 596-A
1900 Webster Street, Oakland, California

Sample Name	Date	Depth To Water (ft bgs)	Total Depth of Boring (ft)	TPHg / GRO (µg/L)	TPHd* (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	DIPE (µg/L)	ETBE (µg/L)	Ethanol (µug/L)	EDB (µg/L)	1,2-DCA (µg/L)	Naphthalene (µg/L)
Inside the Building Footprint																		
B1	8/22/2012	13.5	18	**400**	**1,100**	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--
B2	8/22/2012	13.5	16.5	**6,000**	**3,800**	<12.0	<12.0	**210**	**680**	*<12.0*	--	--	--	--	--	--	--	**290**
B5	10/2/2013	18	19	**650**	**550**	<0.50	<0.50	**14**	**19**	<0.50	--	--	--	--	--	--	--	**11**
B6	10/2/2013	17.5	20	<50	<50	<0.50	**0.56**	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	<0.50
B8	10/2/2013	17	18	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	<0.50
Outside the Building Footprint to the East of the Property																		
SB-3	7/20/2011	21.36	24	**59,000**	**200,000**	**89**	**82**	**430**	**1600**	*<250*	--	--	--	--	--	--	--	--
SB-5	2/3/2015	22.5	25	<50	--	*<2.0*	<2.0	<2.0	<2.0	<1.0	<10	<5.0	<5.0	<5.0	--	--	--	<5.0
SB-6	2/3/2015	22	25	**11,000**	--	*<5.0*	<5.0	**69**	**60**	<2.5	*<25*	<13	<13	<13	--	--	--	**27**
SB-7	2/4/2015	23	25	**3,100**	--	*<2.0*	<2.0	<2.0	<2.0	<1.0	<10	<5.0	<5.0	<5.0	--	--	--	<5.0
SB-8	2/3/2015	18	22	<50	--	*<2.0*	<2.0	<2.0	<2.0	<1.0	<10	<5.0	<5.0	<5.0	--	--	--	<5.0
Outside the Building Footprint to the South and West																		
SB-1	7/20/2011	15.93	20	<50	<50	<0.5	0.5	<0.5	**0.97**	<5.0	--	--	--	--	--	--	--	--
SB-2	7/20/2011	17.14	20	<50	<50	<0.5	<0.5	<0.5	**1.0**	<5.0	--	--	--	--	--	--	--	--
SB-4	2/2/2015	19	25	<50	--	*<2.0*	<2.0	<2.0	<2.0	<1.0	<10	<5.0	<5.0	<5.0	--	--	--	<5.0
SB-9	2/2/2015	19	25	**350**	--	*<2.0*	<2.0	<2.0	<2.0	<1.0	<10	<5.0	<5.0	<5.0	--	--	--	<5.0
SB-10	2/2/2015	18	20	**4,500**	--	**140**	**34**	**32**	**59**	<1.0	<5.0	<5.0	<5.0	<5.0	--	--	--	<50
West of the Site at the Snow Park																		
HP-1	10/25/2017	16.5	20	<50	--	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<5.0	<5.0	<5.0	<150	<2.0	<2.0	<5.0
HP-2	10/25/2017	18	20	<50	--	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<5.0	<5.0	<5.0	<150	<2.0	<2.0	<5.0
HP-3	10/25/2017	19	20	<50	--	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<5.0	<5.0	<5.0	<150	<2.0	<2.0	<5.0
ESLs (for shallow groundwater that is a potential drinking water resource)				100	100	1.0	40	30	20	5.0	12	--	--	--	--	0.005	0.5	0.17

Notes:
bgs- below ground surface
Depth to water measurements are from the boring logs
µg/L - micrograms/liter
TPHg- Total petroleum hydrocarbons as gasoline, also known as Gasoline Range Organ
MTBE- Methyl tertiary-butyl ether
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether
TBA- Tertiary-butyl alcohol
EDB- 1,2-Dibromoethane
1,2-DCA- 1,2-Dichloroethane
Bold - Above the laboratory's indicated reporting limit
< - Below the laboratory's indicated reporting limit
-- - No information available
<12.0 = reporting limit is above ESLs

Figures

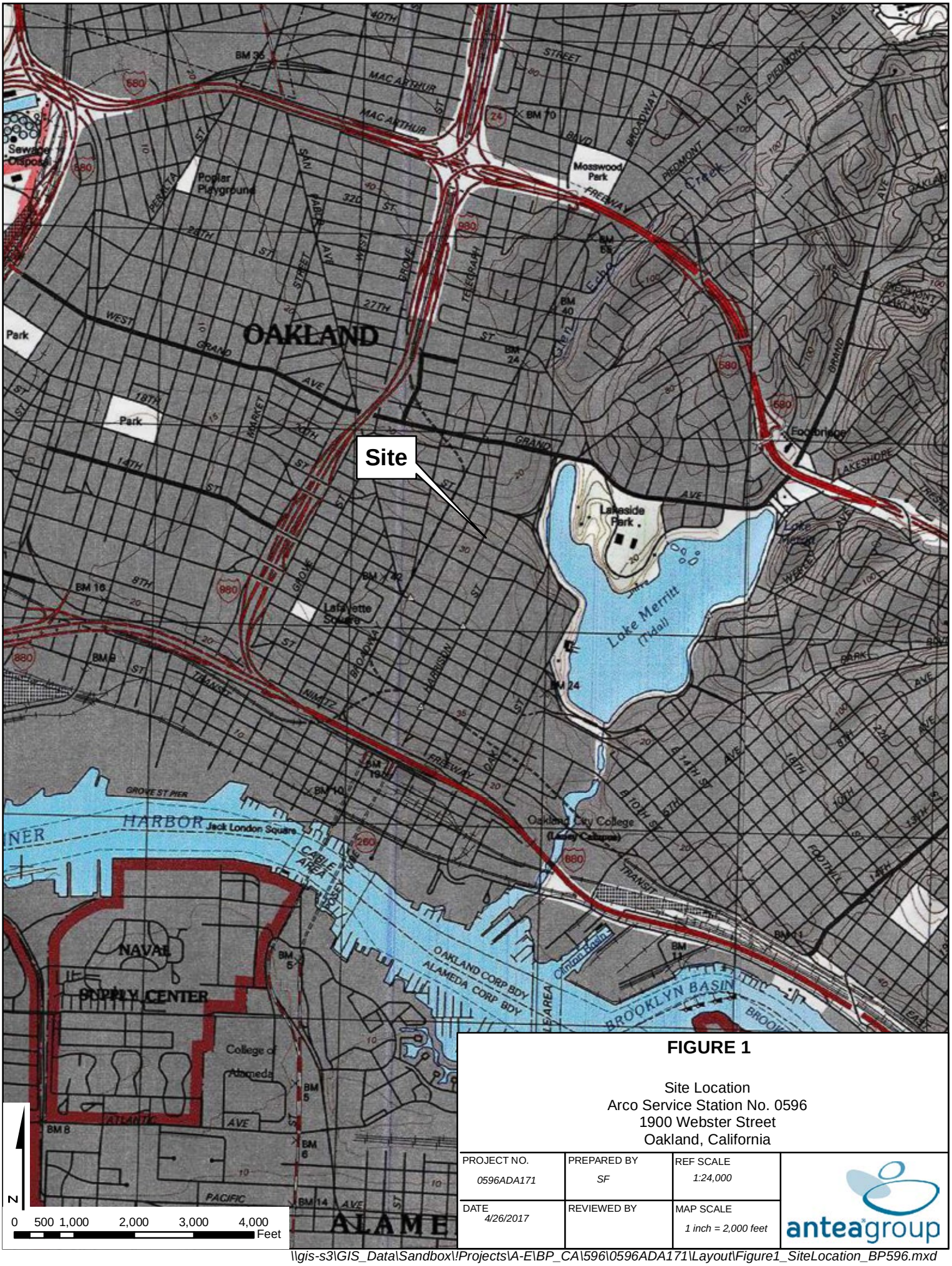


FIGURE 1

Site Location
Arco Service Station No. 0596
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE	
0596ADA171	SF	1:24,000	
DATE	REVIEWED BY	MAP SCALE	
4/26/2017		1 inch = 2,000 feet	

antea group

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FIGURE 2

Detailed Site Plan
4/26/2017
Arco Service Station No. 596
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE
0596ADA171	*SAA*	*1:360*
DATE	REVIEWED BY	MAP SCALE
11/29/2017		*1 inch = 30 feet*

antea group

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FIGURE 3

Extended Site Map
Arco Service Station No. 596
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE	
0596ADA171	*SAA*	*1:480*	antea group
DATE	REVIEWED BY	MAP SCALE	
11/29/2017		*1 inch = 40 feet*	

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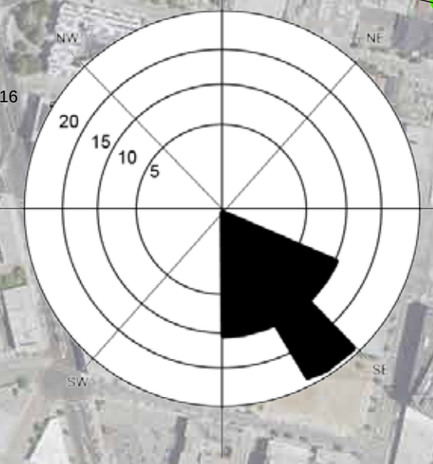
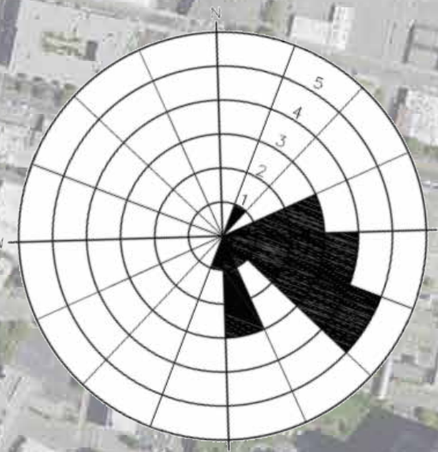
2250 Telegraph Avenue

2225 Telegraph Avenue

Historical Groundwater Flow Direction
Second Quarter 2003 - Third Quarter 2016

Reference:-
Cardno, October 14, 2016, Semi-Annual
Groundwater Monitoring Report- Third Quarter 2016
2225Telegraph Avenue, Oakland CA

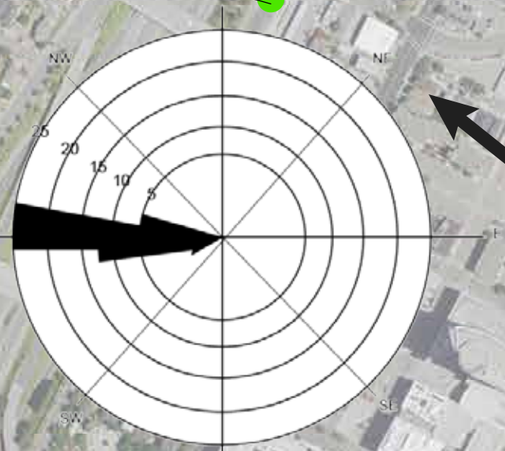




Historical Groundwater Flow Direction
2004-2014

Reference:-
Fugro Consultants, Inc., November 2014,
Groundwater Monitoring Report-October 2014 Event,
2250 Telegraph Avenue, Oakland CA

1700 Castro Street



1700 Jefferson Street

Groundwater Gradient on March 30, 2016

Reference:-
Applied Water Resouces Corporation, May 2016
Annual Groundwater Monitoring Report, 2016
1700 Jefferson Street, Oakland, CA

1900 Webster Street

1721 Webster Street

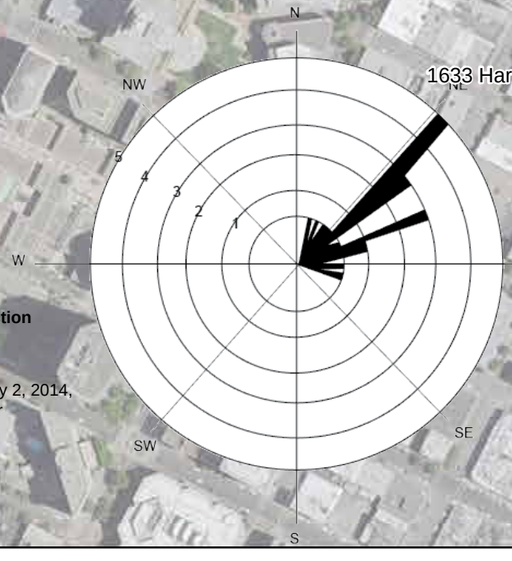
Groundwater Gradient on August 3, 2016

Reference:-
Pangea Environmental Services, Inc., February 16, 2017
Groundwater Moniotring Report- Second Half 2016
1721 Webster Street, Oakland, CA

Historical Groundwater Flow Direction
2000- Fourth Quarter 2015

Reference:-
GDH Services Inc., February 18, 2016
Second Semi-Annual 2015 Groundwater
Monitoring and Sampling Report,
1700 Castro Street, Oakland, CA

1633 Harrison Street



1432 Harrison Street

Historical Groundwater Flow Direction
2002- Second Quarter 2014

Reference:-
Conestoga-Rovers & Associates, May 2, 2014,
First Semi-Annual 2014 Groundwater
Monitoring and Sampling Report
1633 Harrison Street, Oakland, CA

Groundwater Gradient on September 13, 2016

Reference:-
GDH Services, Inc., November 10, 2016
Second Half 2016 Semiannual Groundwater Monitoring Report
1432 Harrison Street, Oakland, CA

Legend

- Adjacent Sites
- Subject Property
- Historic Groundwater Gradient Direction (see adjacent citations)

N

0 200 400 600 800 Feet

FIGURE 4

Groundwater Gradient Map of Nearby Properties
Arco Service Station No. 596
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE	
0596ADA171	*SF/SAA*	*1:4,800*	antea group
DATE	REVIEWED BY	MAP SCALE	
4/26/2017		*1 inch = 400 feet*	

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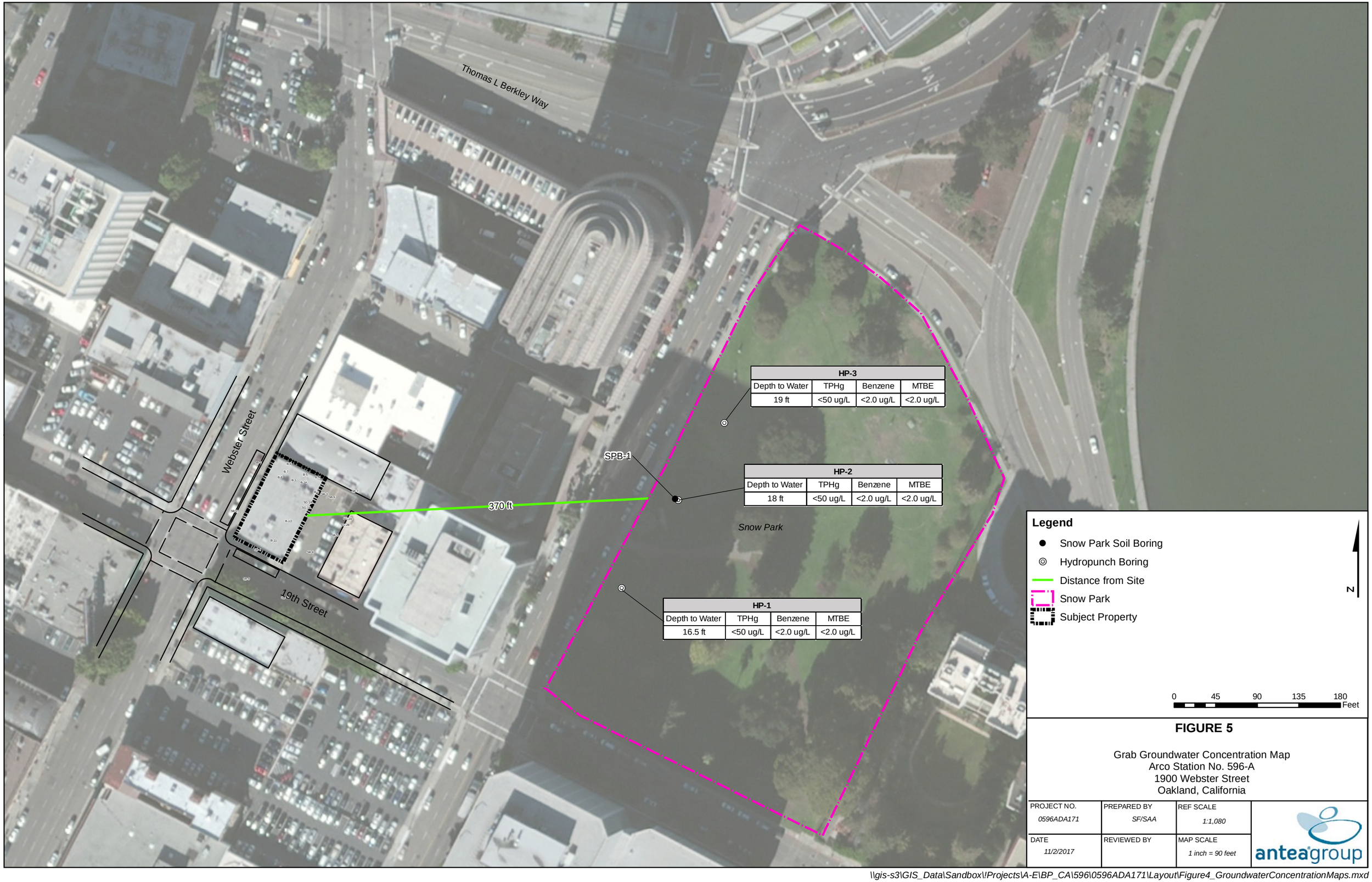

FIGURE 5

Grab Groundwater Concentration Map
Arco Station No. 596-A
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE
0596ADA171	*SF/SAA*	*1:1,080*
DATE	REVIEWED BY	MAP SCALE
11/2/2017		*1 inch = 90 feet*

antea group

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SB-1
(<50)

B-6
(<50)

B-7
(<50)

B-8
(<50)

B-5
(650)

B-4

B-1

B-14

B-2
(6,000)

SB-3
(59,000)

SB-7
(3,100)

SB-6

SG-1B

SG-1A

5000

500

50

SG-2A

SG-2B

B-13

B-11

SB-2
(<50)

SB-4
(<50)

SB-8
(<50)

SB-5
(<50)

SB-9
(350)

SB-10
(4,500)

500

50

HP-3
(<50)

HP-2
(<50)

HP-1
(<50)

Legend

- Hydropunch Boring
- 2011 AEI Soil Boring Locations
- 2012 AEI Soil Boring Locations
- 2015 Broadbent Soil Boring Locations
- 2015 Broadbent Soil Vaport Point Locations
- 2013 P&D Boring Locations
- TPHg Contour in Groundwater (ug/L)
- Inferred TPHg Contour in Groundwater (ug/L)
- Snow Park
- Subject Property

N

0 15 30 45 60 Feet

FIGURE 6

Dissolved Phase TPHg Groundwater Contours
Arco Service Station No. 596
1900 Webster Street
Oakland, California

PROJECT NO.	PREPARED BY	REF SCALE
0596ADA171	*SAA*	*1:480*
DATE	REVIEWED BY	MAP SCALE
11/10/2017		*1 inch = 40 feet*

antea group

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Appendix A

ACEH Letter

Detterman, Karel, Env. Health

From: Detterman, Karel, Env. Health
Sent: Monday, September 18, 2017 11:01 AM
To: 'Carmel, Charles'
Cc: Roe, Dilan, Env. Health; Taylor, Bryan S (ANTEA USA INC); Patzelt, William (Antea Group); Dacre Bush
Subject: Fuel Leak Case RO3100; Geotracker Global IDT10000004348, Buttner Property, 1900 Webster Street, Oakland, CA
Attachments: Attachment_1_and_ftpUploadInstructions_2016-12-15.pdf

Hello Mr. Carmel:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the *Site Investigation Work Plan – Snow Park* (Work Plan) dated September 11, 2017, prepared and submitted on your behalf by Antea Group (Antea) in conjunction with the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). The Work Plan was submitted in response to ACDEH's August 17, 2017 Directive Letter. Thank you for submitting the Work Plan.

Based on ACDEH staff review of the Work Plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or these technical comments is proposed. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: karel.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Encroachment Permit from City of Oakland:** In addition to obtaining the permitting, utility notifications and borehole clearance described in the Work Plan, please include documentation that an encroachment permit from the City of Oakland was obtained prior to placing borings in the City of Oakland's Snow Park.
2. **Soil Sample Collection:** Soil sample collection is not required for the soil borings in Snow Park.
3. **Groundwater Sample Collection:** In addition to the proposed groundwater analyses, please include analysis for naphthalene by EPA 8260B.
4. **Disposal Documentation:** Please include the disposal documentation with the Report requested below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **November 20, 2017 –** Soil and Groundwater Investigation Report
  File to be named: RO3100_SWI_R_yyyy-mm-dd

This report is 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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at karel.detterman@acgov.org or call me at (510) 567-6708.

Karel Detterman, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6708
Fax: 510.337.9335
Email: karel.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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.

ELECTRONIC SUBMITTAL OF REPORTS

Alameda County Department of Environmental Health's (ACDEH) Environmental Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program File Transfer Protocol (FTP) site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to SCP sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/) for more information on these requirements.

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6731, 6735, and 7835) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately licensed or certified professional. For your submittal to be considered a valid technical report, you are to present site-specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this case meet this requirement. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: http://www.bpelsg.ca.gov/laws/index.shtml.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** December 1, 2016
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010; May 15, 2014, November 29, 2016
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SCP) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Open File Explorer using the Windows  key + E keyboard shortcut.
      i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) On the address bar, type in ftp://alcoftp1.acgov.org.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive)
   d) Click Log On.
   e) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   f) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Appendix B

Previous Investigation and Site History Summary

SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

May 2, 2011 – AEI Consultants (AEI) conducted a Phase I Environmental Site Assessment and according to their review the Site was historically occupied by a gasoline service station from approximately 1940 to 1966. The former gasoline service station was demolished and cleared in 1966, but no records were on file with the Oakland Building Department, Alameda County Environmental Health Services Department or Oakland Fire Department regarding removal of the underground storage tanks (USTs). Additionally, no documentation was found whether soil samples were collected and analyzed for the presence of petroleum hydrocarbon contamination following demolition of the station (AEI, 2011).

July 20, 2011 – AEI advanced three soil borings (SB-1 through SB-3) and collected five soil and three groundwater samples from the three locations, which are depicted on Drawing 2. Total Petroleum Hydrocarbons as Gasoline (TPH-g) in soil were reported in samples SB-3-16 and SB-3-20 at concentrations of 8.3 milligrams per kilograms (mg/kg) and 42 mg/kg, respectively. Total Petroleum Hydrocarbons as Diesel (TPH-d) in soil were reported in samples SB-2-16, SB-3-16, SB-3-20 at concentrations of 7.7 mg/kg, 6.5 mg/kg and 8.7 mg/kg, respectively. Total Petroleum Hydrocarbons as Motor Oil (TPH-mo) in soil were reported above the laboratory reporting limit in sample SB-2-16 at a concentration of 25 mg/kg. TPH-g and TPH-d in groundwater samples were reported at 59,000 micrograms per liter (µg/L) and 200,000 µg/L, respectively, in SB-3. Historic soil and groundwater laboratory analytical results from this investigation are included in Appendix A (AEI, 2011).

August 22, 2012 – SCHUTZE & Associates, Inc. (SCHUTZE) performed a Limited Phase II Subsurface Investigation by advancing two soil borings (B-1 and B-2) to 16.5 and 18 ft bgs in the interior of the south tenant space. TPH-g was detected in groundwater samples B1-18-W and B2-16.5-W at concentrations of 400 µg/L and 6,000 µg/L, respectively. TPH-d was detected in groundwater samples B1-18-W and B-2-16.5-W at concentrations of 1,100 µg/L and 3,800 µg/L, respectively. Ethylbenzene and Xylenes were detected in the groundwater sample from B2-16.5-W at concentrations of 210 µg/L and 680 µg/L, respectively. Benzene, toluene and MTBE were not detected in soil and groundwater samples. The results from this Limited Phase II Subsurface Investigation can be found in Appendix A (SCHUTZE, 2012).

2013 – P&D Environmental, Inc. (P&D) conducted a subsurface investigation onsite which included the advancement of eight borings (B-4 through B-8, B-11, B-13, and B-14) to facilitate the collection of soil and groundwater samples. However, groundwater samples were only collected from borings B-5, B-6, and B-8 due to refusal or the absence of groundwater. Slightly elevated concentrations of TPH-G and TPH-D were observed in the groundwater sample collected from boring B-5. Minor petroleum hydrocarbon impacts to soil were observed in soil samples collected from several of the borings. Based on known hydrocarbon impacts to an upgradient property located at 1750 Webster Street and the lack of evidence of a historical release at the subject Site, P&D recommended no further investigation of the Site. Results from this investigation are provided in **Table 1** (P&D, 2014).

2015 – Broadbent & Associates, Inc. (Broadbent) conducted additional Site assessment activities in order to further evaluate potential impacts to soil, groundwater, and soil vapor at the Site. Results of the investigation suggested that residual impacts reside primarily in the groundwater within the north-northeastern portion of the Site. The highest GRO concentrations were observed within the vicinity of boring SB-6 (11,000 µg/L) and further down-gradient boring SB-7 (3,100 µg/L). Up-gradient borings SB-4, SB-5, and SB-8 were non-detect for each constituent analyzed. Benzene was only detected in offsite, up-gradient boring SB-10 at a concentration of 140 µg/L. GRO was also observed in offsite, up-gradient borings SB-9 and SB-10. However, these concentrations are believed to be from offsite sources up-gradient of the Site and based on the absence of hydrocarbon impacts in samples collected from borings SB-4, SB-5, and SB-8, these impacts do not appear to be affecting the Site. Soil and soil vapor analytical results indicated that concentrations were below ESLs or applicable LTCP criteria. These data indicate minimal to no risk for the onsite building occupants from potential petroleum vapor intrusion to indoor air, outdoor air exposure or potential direct contact with soil. (Broadbent, 2015)

Current Consultant: **Antea Group**

References

AEI Consultants, Inc., August 8, 2011. Phase II Subsurface Investigation, 1900 Webster Street, Oakland, California.

SCHUTZE & Associates, Inc., September 21, 2012. Phase I Environmental Site Assessment and Limited Phase I Subsurface Investigation, 1900 Webster Street, Oakland, California.

P&D Environmental, Inc., June 11, 2013. Subsurface Investigation Report, 1900 Webster Street, Oakland, California.

Broadbent & Associates, Inc., 27 March 2015. Vapor Intrusion, Soil and Groundwater Investigation Report, Former Richfield Oil Company Station #596-A, 1900 Webster Street, Oakland, Alameda County, California.

Appendix C

Drilling Permit

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: 09/11/2017 By jamesy

Permit Numbers: W2017-0707
Permits Valid from 10/25/2017 to 10/25/2017

Application Id:	1504284350203	**City of Project Site:**	Oakland
Site Location:	Snow Park (APN:8-635-1) near site: 1900 Webster Street Oakland, CA		
Project Start Date:	09/20/2017	**Completion Date:**	09/20/2017
Assigned Inspector:	Contact Eneyew Amberber at (510) 670-5759 or eneyew@acpwa.org		
Extension Start Date:	10/25/2017	**Extension End Date:**	10/25/2017
Extension Count:	1	**Extended By:**	eneyew2
Applicant:	Antea Group - Jonathan Fillingame 11010 White Rock Road, Suite 140, Rancho Cordova, CA 95670	**Phone:**	916-389-6476
Property Owner:	Oakland Park, Recreation & Youth Development City of Oakland 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612	**Phone:**	510-238-7275
Client:	Charles Carmel 4 Centerpointe Drive, Suite 200, Room LPR 4-222, La Palma, CA 90623	**Phone:**	925-890-5377
Contact:	Jonathan Fillingame	**Phone:** **Cell:**	916-389-6476 916-599-6416

	Total Due:	$265.00
Receipt Number: WR2017-0424	**Total Amount Paid:**	$265.00
Payer Name : Jonathan Fillingame	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 6 Boreholes
Driller: Cascade Drilling - Lic #: 938110 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2017-0707	09/11/2017	12/19/2017	6	2.00 in.	25.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

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

4. 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.

5. 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.

6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

7. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a 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.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

Appendix D

Boring Log

Project No:	**0596ADA171**	Client:	**ARCO**	**Boring No: SPB-1**
Logged By:	**Jonathan Fillingame**	Location:	**Snow Park, Oakland**	Page 1 of 2
Driller:	**Cascade Drilling**	Date Drilled:	10/25/2017	
Drilling Method:	Geoprobe	Hole Diameter:	**2 inches**	
Sampling Method:	Continuous Liners	Hole Depth:	**24 feet**	

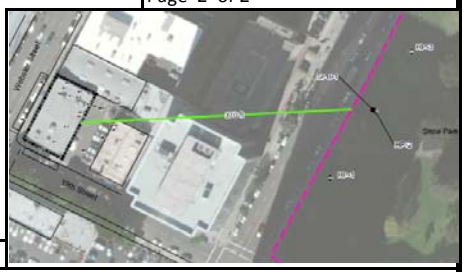
▽ First Water Depth: 6.5 feet

▼ Static Water Depth: 13 feet

Elevation: 19 feet | Northing: 37° 48' 25.2" | Easting: 122° 15' 53.5"

Boring Completion / Backfill	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0	Hand Auger	1				Concrete
			0		2				**Silty SAND (SM)** - brown, 75% fine sand, 25% silt, medium dense, moist, roots.
			0		3				**Silty SAND (SM)** - brown, 70% fine sand, 20% silt, 10% fine gravel, medium dense, moist, roots.
			0		4				
			0		5				
			0		6				**Clayey SAND (SC)** - light brown, 70% fine sand, 25% clay, 5% fine gravel, medium dense, moist, roots.
			0		7				**Silty SAND (SM)** - brown, 70% fine sand, 20% silt, 10% fine gravel, medium dense, wet at 6.5 feet, roots.
			0		8				**Clayey SAND (SC)** - light brown, 70% fine sand, 30% clay, medium dense, wet, roots.
			0		9				**Clayey SAND (SC)** - light brown, 70% fine sand, 30% clay, medium dense, wet.
			0		10				
			0		11				
			0		12				**Lean CLAY (CL)** - brownish grey, 95% clay, 5% fine sand, stiff, medium plasticity, moist.
	▼		0		13				**Lean CLAY (CL)** - grey, 95% clay, 5% fine sand, stiff, medium plasticity, moist.
			0		14				
	▽		0		15				**Clayey SAND (SC)** - grey, 60% fine sand, 40% clay, dense, moist.
			0		16				**Poorly Graded SAND (SP)** - grey, 100% fine sand, dense, wet.
			0		17				**Sandy Lean CLAY (CL)** - brown, 70% clay, 25% fine sand, 5% fine gravel, very stiff, low plasticity, moist.
			0		18				**Lean CLAY (CL)** - brown, 95% clay, 5% fine sand, very stiff, high plasticity, moist.
			0		19				**Sandy Lean CLAY (CL)** - brown, 75% clay, 25% fine sand, very stiff, high plasticity, moist.
			0		20				**Lean CLAY (CL)** - brown, 100% clay, very stiff, medium plasticity, moist.
			0		21				**Lean CLAY (CL)** - brown, 100% clay, hard, medium plasticity, moist.
			0		22				

Project No:	**0596ADA171**	Client:	**ARCO**	**Boring No: SPB-1**	
Logged By:	**Jonathan Fillingame**	Location:	**Snow Park, Oakland**	Page 2 of 2	
Driller:	**Cascade Drilling**	Date Drilled:	10/25/2017		
Drilling Method:	Geoprobe	Hole Diameter:	**2 inches**		
Sampling Method:	Continuous Liners	Hole Depth:	**24 feet**		



First Water Depth: 6.5 feet

Static Water Depth: 13 feet

Elevation: 19 feet | Northing: 37° 48' 25.2" | Easting: 122° 15' 53.5"

Boring Completion / Backfill	Static Water Level	Blow Count (blows/6")	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
			0		23				**Sandy Lean CLAY with Gravel (CL)** - brown, 60% clay, 20% fine-coase sand, 20% gravel, hard, medium plasticity, moist.
			0		24				Total Depth 24 feet
					25				
					26				
					27				
					28				
					29				
					30				
					31				
					32				
					33				
					34				
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Appendix E

Laboratory Analytical Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-195079-1
Client Project/Site: ARCO 0596-A, Oakland
Revision: 1

For:
Antea Group
11010 White Rock Road
Suite 140
Rancho Cordova, California 95670

Attn: Bill Patzelt

Authorized for release by:
11/1/2017 2:30:29 PM

Kathleen Robb, Project Manager II
(949)261-1022
kathleen.robb@testamericainc.com

Table of Contents

Sample Summary

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-195079-1	HP-1_20171031	Water	10/25/17 14:15	10/26/17 09:30
440-195079-2	HP-2_20171031	Water	10/25/17 15:50	10/26/17 09:30
440-195079-3	HP-3_20171031	Water	10/25/17 16:00	10/26/17 09:30

Case Narrative

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

Job ID: 440-195079-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-195079-1

Comments
No additional comments.

Receipt
The samples were received on 10/26/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5º C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): HP-3_20171031 (440-195079-3). COC Lists 7 containers to receive but only 3 voa vials were recevied

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

GC/MS VOA
Method(s) 8260B: The following sample(s) was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 6 was outside the required criteria when verified by the laboratory, and corrective action was not possible: HP-3_20171031 (440-195079-3). The sample was analyzed within 7 days per EPA recommendation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method(s) 8015B: The following volatile sample was received and analyzed with significant headspace in the sample Container(s): HP-3_20171031 (440-195079-3). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method(s) 8015B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 6 was outside the required criteria when verified by the laboratory, and corrective action was not possible: HP-3_20171031 (440-195079-3). The sample was analyzed within 7 days per EPA recommendation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: HP-1_20171031

Date Collected: 10/25/17 14:15
Date Received: 10/26/17 09:30

Lab Sample ID: 440-195079-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			10/28/17 16:51	1
1,2-Dichloroethane	ND		2.0		ug/L			10/28/17 16:51	1
Benzene	ND		2.0		ug/L			10/28/17 16:51	1
Ethanol	ND		150		ug/L			10/28/17 16:51	1
Ethylbenzene	ND		2.0		ug/L			10/28/17 16:51	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			10/28/17 16:51	1
Isopropyl Ether (DIPE)	ND		5.0		ug/L			10/28/17 16:51	1
m,p-Xylene	ND		2.0		ug/L			10/28/17 16:51	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			10/28/17 16:51	1
Naphthalene	ND		5.0		ug/L			10/28/17 16:51	1
o-Xylene	ND		2.0		ug/L			10/28/17 16:51	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			10/28/17 16:51	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			10/28/17 16:51	1
Toluene	ND		2.0		ug/L			10/28/17 16:51	1
Xylenes, Total	ND		2.0		ug/L			10/28/17 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/28/17 16:51*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*10/28/17 16:51*	*1*
Toluene-d8 (Surr)	*98*		*80 - 128*		*10/28/17 16:51*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			10/31/17 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*65 - 140*		*10/31/17 09:59*	*1*

Client Sample ID: HP-2_20171031

Date Collected: 10/25/17 15:50
Date Received: 10/26/17 09:30

Lab Sample ID: 440-195079-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			10/28/17 17:16	1
1,2-Dichloroethane	ND		2.0		ug/L			10/28/17 17:16	1
Benzene	ND		2.0		ug/L			10/28/17 17:16	1
Ethanol	ND		150		ug/L			10/28/17 17:16	1
Ethylbenzene	ND		2.0		ug/L			10/28/17 17:16	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			10/28/17 17:16	1
Isopropyl Ether (DIPE)	ND		5.0		ug/L			10/28/17 17:16	1
m,p-Xylene	ND		2.0		ug/L			10/28/17 17:16	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			10/28/17 17:16	1
Naphthalene	ND		5.0		ug/L			10/28/17 17:16	1
o-Xylene	ND		2.0		ug/L			10/28/17 17:16	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			10/28/17 17:16	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			10/28/17 17:16	1
Toluene	ND		2.0		ug/L			10/28/17 17:16	1
Xylenes, Total	ND		2.0		ug/L			10/28/17 17:16	1

Client Sample ID: HP-2_20171031

Lab Sample ID: 440-195079-2

Date Collected: 10/25/17 15:50

Matrix: Water

Date Received: 10/26/17 09:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/28/17 17:16*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*10/28/17 17:16*	*1*
Toluene-d8 (Surr)	*96*		*80 - 128*		*10/28/17 17:16*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50	ug/L			10/31/17 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*		*10/31/17 10:26*	*1*

Client Sample ID: HP-3_20171031

Lab Sample ID: 440-195079-3

Date Collected: 10/25/17 16:00

Matrix: Water

Date Received: 10/26/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		2.0	ug/L			10/28/17 17:42	1
1,2-Dichloroethane	ND		2.0	ug/L			10/28/17 17:42	1
Benzene	ND		2.0	ug/L			10/28/17 17:42	1
Ethanol	ND		150	ug/L			10/28/17 17:42	1
Ethylbenzene	ND		2.0	ug/L			10/28/17 17:42	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	ug/L			10/28/17 17:42	1
Isopropyl Ether (DIPE)	ND		5.0	ug/L			10/28/17 17:42	1
m,p-Xylene	ND		2.0	ug/L			10/28/17 17:42	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			10/28/17 17:42	1
Naphthalene	ND		5.0	ug/L			10/28/17 17:42	1
o-Xylene	ND		2.0	ug/L			10/28/17 17:42	1
Tert-amyl-methyl ether (TAME)	ND		5.0	ug/L			10/28/17 17:42	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			10/28/17 17:42	1
Toluene	ND		2.0	ug/L			10/28/17 17:42	1
Xylenes, Total	ND		2.0	ug/L			10/28/17 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/28/17 17:42*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*10/28/17 17:42*	*1*
Toluene-d8 (Surr)	*97*		*80 - 128*		*10/28/17 17:42*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50	ug/L			10/31/17 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*65 - 140*		*10/31/17 10:53*	*1*

Method Summary

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

Client Sample ID: HP-1_20171031
Date Collected: 10/25/17 14:15
Date Received: 10/26/17 09:30

Lab Sample ID: 440-195079-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	438044	10/28/17 16:51	AYL	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	438470	10/31/17 09:59	TCN	TAL IRV

Client Sample ID: HP-2_20171031
Date Collected: 10/25/17 15:50
Date Received: 10/26/17 09:30

Lab Sample ID: 440-195079-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	438044	10/28/17 17:16	AYL	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	438470	10/31/17 10:26	TCN	TAL IRV

Client Sample ID: HP-3_20171031
Date Collected: 10/25/17 16:00
Date Received: 10/26/17 09:30

Lab Sample ID: 440-195079-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	438044	10/28/17 17:42	AYL	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	438470	10/31/17 10:53	TCN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-438044/3
Matrix: Water
Analysis Batch: 438044

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			10/28/17 11:18	1
1,2-Dichloroethane	ND		2.0		ug/L			10/28/17 11:18	1
Benzene	ND		2.0		ug/L			10/28/17 11:18	1
Ethanol	ND		150		ug/L			10/28/17 11:18	1
Ethylbenzene	ND		2.0		ug/L			10/28/17 11:18	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			10/28/17 11:18	1
Isopropyl Ether (DIPE)	ND		5.0		ug/L			10/28/17 11:18	1
m,p-Xylene	ND		2.0		ug/L			10/28/17 11:18	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			10/28/17 11:18	1
Naphthalene	ND		5.0		ug/L			10/28/17 11:18	1
o-Xylene	ND		2.0		ug/L			10/28/17 11:18	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			10/28/17 11:18	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			10/28/17 11:18	1
Toluene	ND		2.0		ug/L			10/28/17 11:18	1
Xylenes, Total	ND		2.0		ug/L			10/28/17 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/28/17 11:18*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*10/28/17 11:18*	*1*
Toluene-d8 (Surr)	*99*		*80 - 128*		*10/28/17 11:18*	*1*

Lab Sample ID: LCS 440-438044/4
Matrix: Water
Analysis Batch: 438044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane (EDB)			25.0	26.1		ug/L		104	70 - 130		
1,2-Dichloroethane			25.0	23.4		ug/L		94	57 - 138		
Benzene			25.0	22.9		ug/L		92	68 - 130		
Ethanol			1000	1050		ug/L		105	50 - 149		
Ethylbenzene			25.0	22.9		ug/L		91	70 - 130		
Ethyl-t-butyl ether (ETBE)			25.0	24.7		ug/L		99	60 - 136		
Isopropyl Ether (DIPE)			25.0	24.3		ug/L		97	58 - 139		
m,p-Xylene			25.0	24.5		ug/L		98	70 - 130		
Methyl-t-Butyl Ether (MTBE)			25.0	23.8		ug/L		95	63 - 131		
Naphthalene			25.0	22.2		ug/L		89	60 - 140		
o-Xylene			25.0	25.4		ug/L		102	70 - 130		
Tert-amyl-methyl ether (TAME)			25.0	24.2		ug/L		97	57 - 139		
tert-Butyl alcohol (TBA)			250	265		ug/L		106	70 - 130		
Toluene			25.0	22.6		ug/L		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-195085-A-2 MS
Matrix: Water
Analysis Batch: 438044

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	ND		25.0	26.8		ug/L		107	70 - 131
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146
Benzene	ND		25.0	23.6		ug/L		94	66 - 130
Ethanol	ND		1000	1010		ug/L		101	54 - 150
Ethylbenzene	ND		25.0	23.3		ug/L		93	70 - 130
Ethyl-t-butyl ether (ETBE)	ND		25.0	25.6		ug/L		102	70 - 130
Isopropyl Ether (DIPE)	ND		25.0	25.9		ug/L		104	64 - 138
m,p-Xylene	ND		25.0	25.1		ug/L		100	70 - 133
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.9		ug/L		100	70 - 130
Naphthalene	ND		25.0	22.3		ug/L		89	60 - 140
o-Xylene	ND		25.0	25.7		ug/L		103	70 - 133
Tert-amyl-methyl ether (TAME)	ND		25.0	25.6		ug/L		102	68 - 133
tert-Butyl alcohol (TBA)	ND		250	266		ug/L		106	70 - 130
Toluene	ND		25.0	23.3		ug/L		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Lab Sample ID: 440-195085-A-2 MSD
Matrix: Water
Analysis Batch: 438044

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		25.0	28.0		ug/L		112	70 - 131	4	25
1,2-Dichloroethane	ND		25.0	25.8		ug/L		103	56 - 146	6	20
Benzene	ND		25.0	24.6		ug/L		98	66 - 130	4	20
Ethanol	ND		1000	1040		ug/L		104	54 - 150	3	30
Ethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130	4	20
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.0		ug/L		108	70 - 130	6	25
Isopropyl Ether (DIPE)	ND		25.0	27.1		ug/L		108	64 - 138	5	25
m,p-Xylene	ND		25.0	26.0		ug/L		104	70 - 133	4	25
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.0		ug/L		104	70 - 130	4	25
Naphthalene	ND		25.0	22.5		ug/L		90	60 - 140	1	30
o-Xylene	ND		25.0	26.8		ug/L		107	70 - 133	4	20
Tert-amyl-methyl ether (TAME)	ND		25.0	26.7		ug/L		107	68 - 133	4	30
tert-Butyl alcohol (TBA)	ND		250	282		ug/L		113	70 - 130	6	25
Toluene	ND		25.0	24.1		ug/L		97	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*96*		*80 - 128*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-438470/5
Matrix: Water
Analysis Batch: 438470

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			10/31/17 09:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*65 - 140*		*10/31/17 09:24*	*1*

Lab Sample ID: LCS 440-438470/4
Matrix: Water
Analysis Batch: 438470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			800	861		ug/L		108	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*65 - 140*

Lab Sample ID: 440-195079-1 MS
Matrix: Water
Analysis Batch: 438470

Client Sample ID: HP-1_20171031
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	ND		800	886		ug/L		106	65 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*65 - 140*

Lab Sample ID: 440-195079-1 MSD
Matrix: Water
Analysis Batch: 438470

Client Sample ID: HP-1_20171031
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		800	888		ug/L		106	65 - 140	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*

QC Association Summary

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

GC/MS VOA

Analysis Batch: 438044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-195079-1	HP-1_20171031	Total/NA	Water	8260B	
440-195079-2	HP-2_20171031	Total/NA	Water	8260B	
440-195079-3	HP-3_20171031	Total/NA	Water	8260B	
MB 440-438044/3	Method Blank	Total/NA	Water	8260B	
LCS 440-438044/4	Lab Control Sample	Total/NA	Water	8260B	
440-195085-A-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-195085-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 438470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-195079-1	HP-1_20171031	Total/NA	Water	8015B	
440-195079-2	HP-2_20171031	Total/NA	Water	8015B	
440-195079-3	HP-3_20171031	Total/NA	Water	8015B	
MB 440-438470/5	Method Blank	Total/NA	Water	8015B	
LCS 440-438470/4	Lab Control Sample	Total/NA	Water	8015B	
440-195079-1 MS	HP-1_20171031	Total/NA	Water	8015B	
440-195079-1 MSD	HP-1_20171031	Total/NA	Water	8015B	

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Antea Group
Project/Site: ARCO 0596-A, Oakland

TestAmerica Job ID: 440-195079-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18
Arizona	State Program	9	AZ0671	10-14-18
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP	7	E-10420	07-31-18
Nevada	State Program	9	CA015312018-1	07-31-18
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory Management Program LaMP Chain of Custody Record

Page ____ of ____

BP Site Node Path: BP>USA>CA>SACRAMENTO>2068>PMPv4> 1991 Release

Req Due Date (mm/dd/yy): 48hr 10/30/2017 **Rush TAT:** Yes X No ___

BP Facility No: ARCO 596-A

Lab Work Order Number: ____

Lab Name:	TestAmerica	Facility Address:	1900 Webster Street	Consultant/Contractor:	Antea Group
Lab Address:	17461 Derian Ave #100, Irvine, CA	City, State, ZIP Code:	Oakland, California	Consultant/Contractor Project No:	02068EA171
Lab PM:	Kathleen Robb	Lead Regulatory Agency:	Alameda County Environmental Health	Address:	11010 White Rock Rd, Ste. 140
Lab Phone:	949-261-1022	California Global ID No.:	T10000004348	Consultant/Contractor PM:	Bill Patzelt
Lab Shipping Accnt:	Pick Up	Enfos Proposal No:	009R3-0002	Phone: 916-389-6481	Email: bill.patzelt@anteagroup.com
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___	Email EDD To:	agdataview.us@anteagroup.com and to lab.enfosdoc@bp.com
Other Info:		Stage:	Execute (40) Activity: Project Spend (80)	Invoice To:	BP X Contractor ___

BP Project Manager (PM): Chuck Carmel

BP PM Phone: 925-275-3807

BP PM Email: chuck.carmel@bp.com

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix: Is this location a well?	No. Containers / Preservative: Total Number of Containers	Unpreserved	H2SO4	HNO3	HCl	Methanol	Requested Analyses: TPHg BTEX, MTBE, DiPE, ETBE, TAME, TBA, 1,2-DCA, EDB, ethanol, and Naphthalene by 8260B	Report Type & QC Level / Comments
1	HP-1_20171031	10/25/17	14:15		X			7	1			6		X	Ambers on Hold
2	HP-2_20171031	10/25/17	15:50		X			7	1			6		X	Ambers on Hold
3	HP-3_20171031	10/25/17	16:00		X			7	1			6		X	Ambers on Hold
4															
5															
6															
11															

Report Type & QC Level: Standard X; Full Data Package ___

Comments: Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

440-195079 Chain of Custody

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Jonathan Fillingame						
Sampler's Company: Antea Group	Jonathan Fillingame	10/25	16:55	[illegible] TAL	10/26/17	9:30
Shipment Method: FedEx Ship Date: 10/25/17						
Shipment Tracking No:						

Special Instructions: IR-66 Fed: 7882 1607 1910

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 0.9/1.5 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Login Sample Receipt Checklist

Client: Antea Group

Job Number: 440-195079-1

Login Number: 195079
List Number: 1
Creator: Garcia, Veronica G

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Is the Data Valid? (circle) Yes / No	Preservation Temperature (if Known): 1.5 °C

Antea Group Lab Validation Sheet

Project/Client: ARCO
Project #: 0596ADA171
Date of Validation: 11/2/17 **Date of Analysis:** 10/28/17 **Sample Date:** 10/25/17
Completed By: Jon F. **Signature:** Jonathan F. Diggone
Analytical Lab Used and Report # (if any): Test America 440-195079-1

	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:

Appendix F

Waste Manifests

NO. 739838

NON-HAZARDOUS WASTE DATA FORM

BESI # 288231

GENERATOR

Generator's Name and Mailing Address

BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Site Address (if different than mailing address)

BP 00596-A
1900 WEBSTER STREET
OAKLAND, CA 94612

Generator's Phone: 949-460-5200

Container type removed from site:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 1

Container type transported to receiving facility:

☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%
2. TPH		<1%

COMPONENTS OF WASTE	PPM	%
3.		
4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: Larry Moothart of BESI on behalf of generator | Signature | Month 11 | Day 14 | Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE | Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Larry Moothart | Signature | Month 11 | Day 14 | Year 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC. | Phone#: 714-990-6855

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

DEMENNO KERDOON
2000 N. ALAMEDA ST.
COMPTON, CA 90222

Phone#: 310-537-7100

Printed/Typed Name | Signature | Month | Day | Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
/ /			A07	48141	1901

Generator and/or Consultant

Generator's Name and Billing Address:
BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Phone #: 949-460-5200
Person to Contact:
FAX#:
Customer Account Number

Consultant's Name and Billing Address:

Consultant's Phone #:
Person to Contact:
FAX#:
Customer Account Number

Generation Site (Transport from): *(name & address)*
SP 00596-A
1900 WEBSTER STREET
OAKLAND, CA 94612

Site Phone #:
Person to Contact:
FAX#:

Designated Facility (Transport to): *(name & address)*
SOIL SAFE
12328 HIBISCUS AVENUE
ADELANTO, CA 92301

Facility Phone #: (800) 862-9001
Person to Contact: JOE PROVANSAL
FAX#: (760) 246-9004

Transporter Name and Mailing Address:
BELSHIRE
25971 TOWNE CENTRE DRIVE
FOOTHILL RANCH, CA 92610
BESI: 286231

Transporter's Phone #: 949-460-5200
CAR000183913
Person to Contact: LARRY MOOTHART
450647
FAX#: 949-460-5210
Customer Account Number

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑	1 DM				
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑					

List any exception to items listed above: Scale Ticket #

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils descried in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ❑ Consultant ❑
Larry Moothart of BESI on behalf of generator

Signature and date: Month 11 Day 14 Year 17

Transporter

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Larry Moothart

Signature and date: Month 11 Day 14 Year 17

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. PROVANSAL

Signature and date:

Please print or type.

FACILITY COPY