

Additional Groundwater and Soil Vapor Assessment Report

***1795 Long Beach Boulevard
Long Beach, California***

Prepared for:

AMCAL Multi-Housing, Inc.

Prepared by:

**Rincon Consultants, Inc.
August 29, 2017**



E n v i r o n m e n t a l S c i e n t i s t s P l a n n e r s E n g i n e e r s



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Project 16-03146

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**Additional Groundwater and Soil Vapor Assessment
1795 Long Beach Boulevard, Long Beach, California**

Dear Mr. Hansen:

Pursuant to your request, we have prepared this report detailing the groundwater and soil vapor assessment completed on July 31, 2017 and August 2, 2017 for the property located at 1795 Long Beach Boulevard, Long Beach, California. The purpose of the assessment was to further delineate the lateral and vertical extent of tetrachloroethylene (PCE) impacts associated with the former dry cleaner. Site screening included analysis of three groundwater samples for volatile organic compounds (VOCs) by EPA Method 8260B and two soil vapor samples for VOCs by modified EPA Method 8260B (H&P Method 8260SV).

Sincerely,
RINCON CONSULTANTS, INC.

Matt Pendleton
Associate Geologist

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1795 Long Beach Boulevard
Long Beach, California

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EXECUTIVE SUMMARY

This report presents the results of a groundwater and soil vapor assessment conducted by Rincon Consultants, Inc. (Rincon) for AMCAL Multi-Housing, Inc. for the subject property located at 1795 Long Beach Boulevard in Long Beach, California (Figure 1). Rincon previously completed environmental assessments for the subject property, as follows:

1. Phase I Environmental Site Assessment, report dated September 28, 2016
2. Phase II Environmental Site Assessment, draft report dated November 2, 2016
3. Additional Phase II Environmental Site Assessment, draft report dated January 5, 2017
4. Groundwater Assessment, report dated March 31, 2017

The results of the two previously completed Phase II ESAs and the additional groundwater assessment demonstrated the presence of tetrachloroethene (PCE) in soil vapor and groundwater beneath the subject property.

PCE was detected in soil vapor residential and commercial scenarios for the San Francisco Regional Water Quality Control Board screening levels and California Human Health Screening Levels. PCE was detected in groundwater above the California Maximum Contaminant Levels for Drinking Water. To assess whether PCE is traveling offsite, Rincon recommended additional groundwater and soil vapor sampling be conducted southwest of the subject property along North Palmer Court.

On July 31, 2017, three groundwater samples were collected by drilling borings using a Strataprobe direct-push rig (Figure 2). In addition, a co-located soil vapor probe was installed at a depth of five feet below grade in one of the three boring locations. Groundwater was encountered between 25 and 30 feet below grade. Soil samples were collected from one of the borings to classify the physical properties of the soil. The groundwater samples were collected and analyzed by H&P Mobile Geochemistry, Inc., and analyzed for volatile organic compounds (VOCs) by EPA Method 8260B.

PCE and chloroform were the only detected VOCs in groundwater (Table 1). PCE was detected in all three samples, ranging in concentration from 1.2 to 1.8 micrograms per liter ($\mu\text{g/L}$). The detected PCE in groundwater samples was compared to California Maximum Contaminant Levels (MCL) for Drinking Water. The detected PCE did not exceed the MCL for PCE of 5 $\mu\text{g/L}$.

Chloroform was detected in one groundwater sample, at a concentration of 2.4 $\mu\text{g/L}$. There is no established MCL for chloroform and so the detection was instead compared to the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level Goal (MCLG). Chloroform did not exceed the MCLG of 70 $\mu\text{g/L}$.

On August 2, 2017, two soil vapor samples, including one replicate, were collected from the co-located soil vapor probe. A Rincon Environmental Scientist oversaw the sample collection by H&P Mobile Geochemistry, Inc. The soil vapor samples were analyzed by H&P Mobile Geochemistry, Inc., for VOCs by modified EPA Method 8260B (H&P Method 8260SV). PCE was the only detected VOC in the soil vapor samples, with concentrations ranging from 0.26 to 0.30 $\mu\text{g/L}$.



Soil vapor results were compared to the California Department of Toxic Substances Control (DTSC) Human Health Risk (HERO) Note 3 (June 2016) screening levels for indoor air.

An attenuation factor of 0.001 was applied to the indoor air screening level to generate a shallow soil gas screening level as outlined in DTSC's Vapor Intrusion Guidance (2011). Soil vapor results were also compared to the California Human Health Screening Levels (CHHSL), 2010 – soil gas screening numbers for volatile chemicals below buildings constructed without engineered fill below sub-slab gravel. The detected PCE concentrations in soil vapor samples do not exceed either the DTSC screening level of 0.48 µg/L or the CHHSL of 0.47 µg/L.

This assessment was completed to further characterize PCE in groundwater and soil gas southwest of the property. Concentrations of VOCs in groundwater and soil gas samples collected southwest of the site are low. We do not recommend any additional sampling southwest of the subject property.

INTRODUCTION

This report presents the results of a groundwater and soil vapor assessment conducted by Rincon for AMCAL Multi-Housing, Inc. for the subject property located at 1795 Long Beach Boulevard in Long Beach, California.

PROJECT HISTORY

Rincon completed a Phase I and Phase II ESA, and an additional Phase II ESA for the subject property in 2016. Rincon also completed a Phase I ESA in September 2016, which identified two potential Recognized Environmental Conditions (RECs) at the subject property as follows:

Potential Recognized Environmental Conditions

1. Former Olympic Cleaners located on the subject property
2. Former automotive repair stations and former gasoline stations located adjacent to the subject property.

To evaluate impacts to the subject property associated with the potential RECs listed above, Rincon recommended conducting a soil vapor assessment in the vicinity of the former onsite cleaners, likely located on the southeastern portion of the subject property. Rincon also recommended reviewing Long Beach Fire Department records for the former adjacent automotive repair stations and gasoline stations.

Long Beach Fire Department records were reviewed on September 23, 2016. No relevant information regarding hazardous materials was available for the adjacent properties. A soil vapor assessment was conducted along the northern and western property boundaries to determine if the subject property has been impacted by the former adjacent land uses.



Based on the findings of the Phase I ESA and file review, on October 19, 2016, Rincon and H&P Mobile Geochemistry (H&P) advanced nine soil borings and installed nine soil vapor probes onsite. Soil vapor samples were collected from five feet below ground surface (bgs) at each vapor probe location. The soil vapor samples were analyzed onsite by H&P's certified mobile laboratory for volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) as gasoline by Environmental Protection Agency (EPA) Method 8260SV, and methane by EPA Method 8015M.

Based on the laboratory analytical results, PCE, trichloroethene (TCE), benzene, ethylbenzene, and TPH as gasoline in soil vapor were detected at concentrations that exceeded their respective San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Level (ESL) or California Human Health Screening Level (CHHSL). PCE and TCE are commonly associated with the release of dry cleaning chemicals. In addition, chloroform, toluene, xylenes, and naphthalene were also detected in the soil vapor samples; however, none of the concentrations detected in these constituents exceeded their respective CHHSLs or ESLs. Methane was not detected in any of the soil vapor samples analyzed.

Based on the results from the October 19, 2016 assessment and to further delineate the detected PCE in soil vapor, on December 6 and 7, 2016, Rincon and H&P advanced an additional seven soil borings and installed additional soil vapor probes onsite. Soil vapor samples were collected from five feet bgs at five soil vapor probe locations, and collected at 15 feet bgs in six soil vapor probe locations. The soil vapor samples were analyzed onsite by H&P's certified mobile laboratory for VOCs by EPA Method 8260SV. Based on the proposed use of the site for commercial use on the first floor, and residential use on the upper floors, the results were compared to commercial screening levels for the purpose of vapor intrusion concern into the first floor (commercial use). Based on the laboratory analytical results, PCE in soil vapor was detected at concentrations that exceeded the CHHSL. Concentrations of benzene were detected near the adjacent auto repair facility (west of the subject property) and suggest offsite migration of benzene from the adjacent site to the west.

VOCs were not detected in the soil matrix samples analyzed. TPH diesel range organics (TPH-DRO) and oil range organics (TPH-ORO) were detected in a soil sample collected from the northeastern portion of the subject property at concentrations of 56 and 130 milligrams per kilogram (mg/kg), respectively. CHHSLs have not been established for TPH-DRO and TPH-ORO in soil, however, concentrations did not exceed their residential or commercial ESLs or the soil screening level (SSL) established by the Los Angeles RWQCB. TPH-GRO was not detected in the soil matrix samples analyzed.

PCE was detected in one groundwater sample at a concentration exceeding its Maximum Contaminant Level (MCL) for drinking water, set forth by the State Water Resources Control Board (SWRCB).

TPH-DRO and TPH-ORO were detected at maximum concentrations of 0.38 milligrams per liter (mg/L) and 0.71 mg/L, respectively, in one groundwater sample. MCLs have not been established for TPH in drinking water. However, the detected concentrations did not exceed the SFBRWQCB ESLs for non-drinking water odor nuisance levels (non-direct exposure levels) to which they were compared.



On December 6 and 7, 2016 under the direction of Rincon, H&P utilized a truck-mounted drill rig equipped with direct push technology to advance six soil borings (SV10 through SV15) and install soil vapor probes at 5 and 15 feet bgs. All analyses were performed in an onsite mobile laboratory using a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Flame Ionization Detector (FID) and an Electron Capture Detector. All results were collected on a computer utilizing Hewlett Packard's PC-based chromatographic data collection and handling system.

Prior to installation of the soil vapor probes, soil samples were collected from the six soil borings/soil vapor probe locations at 5, 10 and 15 feet bgs. An additional soil boring was advanced using a hand auger with a sample collected at 5 feet bgs. A total of 19 soil samples were collected for laboratory analysis. In addition, groundwater samples were collected from four borings at a depth of about 30 feet below grade.

Soil gas samples were analyzed for VOCs by EPA Method 8260SV. The results were compared to commercial screening levels for the purpose of vapor intrusion concern, and are as follows:

- Tetrachloroethylene (PCE) was detected in all of the eleven samples analyzed, ranging from 0.54 µg/L to 12 µg/L. Ten of the soil vapor samples analyzed exceeded the California Human Health Screening Level (CHHSL) for PCE in soil vapor at commercial sites of 0.60 µg/L.
- Trichloroethylene (TCE) was detected in seven of the eleven samples analyzed, ranging from 0.03 µg/L to 0.30 µg/L. None of the samples exceeded the CHHSL for TCE in soil vapor at commercial sites of 1.8 µg/L.
- Chloroform was detected in two of the eleven samples analyzed, ranging from 0.04 µg/L to 0.08 µg/L. CHHSLs have not been established for chloroform.
- Benzene was detected in ten of the eleven samples analyzed, ranging from 0.02 µg/L to 0.10 µg/L. None of the exceeded the CHHSL for benzene in soil vapor at commercial sites of 0.12 µg/L.
- Ethylbenzene was detected in five of the eleven samples analyzed ranging from 0.10 µg/L to 1.0 µg/L. None of the samples exceeded the CHHSL for ethylbenzene in soil vapor at commercial sites of 1.4 µg/L.
- Xylenes, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were also detected in the soil vapor samples. However, none of the concentrations detected exceeded their respective CHHSLs, where applicable.

On March 9, 2017, Rincon collected seven groundwater samples by drilling borings using a Geoprobe direct-push rig. In addition, groundwater monitoring wells were installed in all of the 7 borings for the purpose of measuring the water depth and determining groundwater flow direction. Groundwater was encountered between 25 and 30 feet below grade. Soil samples were collected from one of the borings to classify the physical properties of the soil beneath the property.

PCE, Chloromethane, Bromodichloromethane, and Chloroform were detected in the groundwater samples collected from the site. All of the detected concentrations were generally low and consistent in magnitude across the site.



PCE and Chloroform has historically been utilized as dry-cleaning solvent. Bromodichloromethane is commonly generated as a by-product when chlorine is added to the potable water supply. Chloromethane is commonly encountered as a naturally occurring by-product from rotting organic material. However, historically chloromethane was also used in industrial processes as a refrigerant.

Chloromethane does not have an established State Water Quality Control Board (SWRCB) or United States Environmental Protection Agency (USEPA) maximum contaminant level (MCL). Bromodichloromethane and Chloroform do not have established SWRCB drinking water MCLs. However, Chloroform does have a USEPA MCL and none of the detected concentrations exceed the MCL for Chloroform of 70 µg/L. PCE was detected in all seven groundwater samples and was only marginally higher than the SWRCB MCL threshold of 5 µg/L at two of the seven locations.

Based on the results of Groundwater samples collected on March 9, 2017, a human health risk assessment was conducted using the DTSC HERO Groundwater Screening Model. Soil characterization for soil samples from 5 to 10 feet depth indicated that the soil in the vicinity of well RBH-1 is classified as Clayey Sand. The highest concentration of PCE in groundwater was used in the calculations (7.5 µg/L). The PCE concentration in groundwater does not exceed one in one million cancer risk for residential scenario (5.4E-08) and commercial scenarios (6.4E-09) for vapor intrusion, indicating that under both development scenarios the calculated health risks are significantly below the Department of Toxic Substances Control (DTSC) health risk target level.

SCOPE OF WORK

The following tasks were performed as part of the groundwater and soil vapor assessment:

- **Health and Safety Plan.** A Health and Safety Plan was developed for the sampling personnel.
- **Utility Notification.** The subject property was pre-marked and Underground Services Alert (USA) was contacted to mark areas where underground public utilities might be located in the drilling area.
- **Permitting.** Rincon obtained an excavation permit from the City of Long Beach Department of Public Works (Appendix A). Rincon also obtained a well permit from the City of Long Beach Department of Health and Human Services (Appendix B).
- **Groundwater Sampling.** Rincon collected three groundwater samples by drilling borings using a Strataprobe direct-push rig. Soil samples were collected from one of the borings to classify the physical properties of the offsite soil.
- **Soil Vapor Probe Installation and Sampling.** One co-located soil vapor probe was installed at a depth of five feet below grade in one of the three boring locations for later sampling. Two soil vapor samples (including one replicate) were collected from the soil vapor probe.



- **Laboratory Analyses.** All laboratory analyses were performed by H&P Mobile Geochemistry. All three groundwater samples were analyzed for VOCs by EPA Method 8260B. The soil vapor samples were analyzed for VOCs by modified EPA Method 8260B (H&P Method 8260SV).
- **Reporting.** Preparation of this report documenting our findings.

METHODOLOGY

SOIL BORING AND GROUNDWATER SAMPLING

On July 31, 2017 three borings were advanced to groundwater using a Strataprobe direct-push rig, labelled RBH-8 through RBH-10 (Figure 2). Groundwater was encountered between 25 and 30 feet below grade and one groundwater sample was collected from each location. The top ten feet of each boring were advanced using a hand auger. During soil boring advancement, soil from one boring (RBH-9) was logged and the associated soil boring log is included as Appendix C. The groundwater samples were analyzed by H&P Mobile Geochemistry and analyzed for VOCs by EPA Method 8260B. Following completion, soil borings RBH-8 and RBH-9 were backfilled with slurry and patched at the surface to match the adjacent surface.

SOIL VAPOR PROBE INSTALLATION AND SAMPLING

Following groundwater sampling on July 31, 2017, one co-located soil vapor probe was installed at location RBH-10. The soil vapor probe was installed in accordance with the California Environmental Protection Agency/Department of Toxic Substances Control (DTSC) Active Soil Gas Investigations Advisory, dated July 2015. At the designated sampling depth, 1/8 inch diameter tubing was inserted in the borehole and extended to the ground surface. The tubing was notched at the base to allow soil gas to enter into the tubing during sampling. Sand was placed within the open borehole to form a permeable sand pack surrounding the vapor probes. Dry bentonite filled in the hole, which was then capped with hydrated bentonite. Backfilling with bentonite prevents air from being drawn down the borehole instead of from the formation. The tracer gas 1,1-Difluoroethane (1,1-DFA) was used to determine if there were leaks that allowed ambient air to interfere with the samples being collected.

On August 2, 2017, two soil vapor samples, including one replicate, were collected from the soil vapor probe. Rincon oversaw H&P Mobile Geochemistry collect the soil vapor samples. The soil vapor samples were analyzed by H&P for VOCs by modified EPA Method 8260B (H&P Method 8260SV).



RESULTS

GROUNDWATER RESULTS

Groundwater samples were analyzed for VOCs by EPA Method 8260B. Results of the groundwater sample analysis are shown in Table 1. A copy of the laboratory analytical report is in Appendix D.

PCE and chloroform were the only detected VOCs in groundwater (Table 1). PCE was detected in all three samples, ranging in concentration from 1.2 to 1.8 micrograms per liter ($\mu\text{g/L}$). The detected PCE in groundwater samples was compared to California Maximum Contaminant Levels (MCL) for Drinking Water. The detected PCE did not exceed the MCL for PCE of 5 $\mu\text{g/L}$.

Chloroform was detected in one groundwater sample, at a concentration of 2.4 $\mu\text{g/L}$. There is no established MCL for chloroform and so the detection was instead compared to the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level Goal (MCLG). Chloroform did not exceed the MCLG of 70 $\mu\text{g/L}$.

SOIL VAPOR RESULTS

PCE was the only detected VOC in the soil vapor samples, with concentrations ranging from 0.26 to 0.30 $\mu\text{g/L}$. Soil vapor results were compared to the California Department of Toxic Substances Control (DTSC) Human Health Risk (HERO) Note 3 (June 2016) screening levels for indoor air. An attenuation factor of 0.001 was applied to the indoor air screening level to generate a shallow soil gas screening level as outlined in DTSC's Vapor Intrusion Guidance (2011). Soil vapor results were also compared to the California Human Health Screening Levels (CHHSL), 2010 - soil gas screening numbers for volatile chemicals below buildings constructed without engineered fill below sub-slab gravel. The detected PCE concentrations do not exceed either the DTSC screening level of 0.48 $\mu\text{g/L}$ or the CHHSL of 0.47 $\mu\text{g/L}$.

DISCUSSION

Based on the sampling program presented here, concentrations of VOCs in groundwater and soil vapor are low. We do not recommend any additional sampling southwest of the subject property.



LIMITATIONS

This report has been prepared for and is intended for the exclusive use of AMCAL Multi-Housing, Inc. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

Our conclusions regarding the subject property are based on the results of a limited sampling program. The results of this evaluation are qualified by the fact that only limited sampling and analysis was conducted during this assessment.

This scope was not intended to completely establish the quantities and distribution of contaminants present at the subject property or to determine the cost to remediate the subject property. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the subject property do not represent a warranty that all areas within the subject property are similar to those sampled.



Table 1
Groundwater Analytical Results - VOCs
1795 Long Beach Boulevard
Long Beach, California
Groundwater Samples Collected 7/31/2017
Concentrations in µg/L

Soil Boring	Chloroform	PCE	Chloromethane	Bromodichloro- methane
RBH-8	ND	1.6	ND	ND
RBH-9	ND	1.8	ND	ND
RBH-10	2.4	1.2	ND	ND
<i>Laboratory Reporting Limit</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<i>MCL</i>	<i>70*</i>	<i>5.0</i>	<i>NE</i>	<i>NE</i>

Notes:

NE = Not established

PCE = Tetrachloroethene

µg/L = micrograms per liter

ND = not detected above the laboratory reporting limit

MCL = State of California Maximum Contaminant Levels for Drinking Water

*= No established MCL for chloroform, so the detections were compared to the USEPA Maximum Contaminant Level Goal (MCLG)

Groundwater samples analyzed by H&P Mobile Geochemistry, Inc. for volatile organic compounds by EPA Method 8260B. See laboratory report for complete listing of results.

Table 2
Soil Vapor Analytical Results - VOCs
1795 Long Beach Boulevard
Long Beach, California
Soil Vapor Samples Collected 8/2/2017
Concentrations in µg/L

Soil Boring	Sample Depth in Feet	PCE
RBH-10-SV	5	0.30
RBH-10-SV-REP	5	0.26
DTSC SL		0.48
<i>CHHSL - Residential Scenario</i>		0.47

Notes:

PCE = Tetrachloroethene

µg/L = micrograms per liter

CHHSL = California Human Health Screening Levels, 2010 - soil gas screening numbers for volatile chemicals below buildings constructed without engineered fill below sub-slab gravel.

DTSC SL- In accordance with DTSC's HERO Note 3 (June 2016) screening Levels are based on DTSC SLs and EPA May 2016 Residential Indoor Air Regional Screening Levels (RSL). An attenuation factor of 0.001 is applied to the indoor air SL to generate a shallow soil gas screening level as outlined in DTSC's Vapor Intrusion Guidance (2011).

Soil vapor samples analyzed by H&P Mobile Geochemistry, Inc. for volatile organic compounds by modified EPA Method 8260B (H&P Method 8260SV).
See laboratory report for complete listing of results.

Table 1 - Soil Vapor Analytical Results
Samples Collected by H&P Mobile Geochemistry on
October 19, 2016

Soil Vapor Probe Location	Depth (ft)	PCE (µg/L)	TCE (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	m,p-Xylene (µg/L)	o-Xylene (µg/L)	Naphthalene (µg/L)	TPH-g (C5-C12) (µg/L)	Other VOCs (µg/L)	Methane (ppmv)
SV1	5	50	0.15	ND	0.06	ND	2.0	6.4	2.0	ND	110	ND	ND
SV2	5	17	ND	ND	0.04	ND	ND	ND	ND	ND	ND	ND	ND
	5-DUP	18	0.02	ND	0.04	ND	ND	ND	ND	ND	ND	ND	ND
SV3	5	66	1.8	ND	0.23	ND	ND	1.0	ND	ND	69	ND	ND
SV4	5	12	0.06	ND	0.09	ND	ND	ND	ND	ND	ND	ND	ND
SV5	5	1.7	0.12	ND	0.17	0.28	ND	0.14	ND	ND	ND	ND	ND
SV6	5	1.1	ND	0.02	0.16	ND	ND	0.11	ND	ND	ND	ND	ND
SV7	5	0.15	ND	ND	0.04	ND	ND	ND	ND	ND	ND	ND	ND
SV8	5	5.1	0.60	ND	ND	ND	0.41	1.9	0.72	0.03	ND	ND	ND
SV9	5	0.30	ND	ND	ND	ND	9.2	36	11	ND	430	ND	ND
<i>Laboratory Detection Limit</i>		0.40	0.02	0.02	0.02	0.20	0.10	1.0	0.10	0.02	80	Varies	NE
<i>CHHSL - Commercial/Industrial</i>		0.60	1.8	NE	0.12	380	1.4	890	880	0.11	NE	Varies	NE

NE - Not established

ND - Not detected above laboratory detection limit

ft - feet

µg/L - micrograms per liter

ppmv = parts per million by volume

PCE - Tetrachloroethene

TCE - Trichloroethene

VOCs - Volatile Organic Compounds

CHHSL = California Human Health Screening Levels (commercial/industrial scenario)

Bold - Concentration detected meets or exceeds the CHHSL

Table 2 - Soil Vapor Analytical Results
Samples Collected by H&P Mobile Geochemistry on
December 6 and 7, 2016

Soil Vapor Probe Location	Depth (ft)	PCE (µg/L)	TCE (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	m,p-Xylene (µg/L)	o-Xylene (µg/L)	1,2,4 - TMB (µg/L)	1,3,5 - TMB (µg/L)	Other VOCs (µg/L)
SV10	5	0.54	0.03	ND	0.05	ND	0.24	0.11	0.15	ND	ND
	15	1.1	0.04	ND	0.08	0.17	0.63	0.2	ND	ND	ND
SV11	5	9.4	0.25	ND	0.03	1.0	4.2	1.3	0.33	0.15	ND
	15	8.8	0.30	ND	ND	0.62	2.8	0.99	ND	ND	ND
SV12	5	2.5	0.04	ND	0.02	ND	ND	ND	ND	ND	ND
	15	4.2	0.22	ND	ND	ND	ND	ND	ND	ND	ND
SV13	5	1.2	ND	ND	0.10	0.10	0.29	0.11	ND	ND	ND
	15	2.4	ND	0.04	0.03	ND	ND	ND	ND	ND	ND
SV14	15	12	0.06	0.08	0.03	0.12	0.49	0.22	ND	ND	ND
SV15	5	8.2	ND	ND	0.02	ND	ND	ND	ND	ND	ND
	15	8.2	ND	ND	0.02	ND	ND	ND	ND	ND	ND
	15 - REP	7.7	ND	ND	0.03	ND	ND	ND	ND	ND	ND
<i>Laboratory Detection Limit</i>		0.02	0.02	0.02	0.02	0.10	0.10	0.10	0.10	0.10	Varies
<i>CHHSL - Commercial/Industrial</i>		0.60	1.8	NE	0.12	1.4	890	880	NE	NE	Varies

NE - Not established

ND - Not detected above laboratory detection limit

ft - feet

µg/L - Micrograms per liter

VOCs - Volatile Organic Compounds

PCE - Tetrachloroethene

TCE - Trichloroethene

TMB - Trimethylbenzene

CHHSL = California Human Health Screening Levels - Commercial/Industrial Scenario

Bold - Concentration detected meets or exceeds the CHHSL

Table 3
Soil Matrix Analytical Results
VOCs (8260B) & TPH (8015B)
1795 Long Beach Boulevard
Long Beach, California
December 6 & 7, 2016

Boring	Sampling Depth (feet bgs)	VOCs (µg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)
RSB1	5	ND	ND	56	130
SV10	5	ND	ND	ND	ND
	10	ND	ND	ND	ND
	15	ND	ND	ND	ND
SV11	5	ND	--	--	--
	10	ND	--	--	--
	15	ND	--	--	--
SV12	5	ND	--	--	--
	10	ND	--	--	--
	15	ND	--	--	--
SV13	5	ND	ND	ND	ND
	10	ND	ND	ND	ND
	15	ND	ND	ND	ND
SV14	5	ND	--	--	--
	10	ND	--	--	--
	15	ND	--	--	--
SV15	5	ND	--	--	--
	10	ND	--	--	--
	15	ND	--	--	--
Laboratory Reporting Limit		Varies	1.0	10	10
LA RWQCB SSL		Varies	500	1,000	10,000
ESL - Residential		Varies	740	230	11,000
ESL - Commercial		Varies	3,900	1,100	140,000
CHHSL - Residential		Varies	NE	NE	NE
CHHSL - Commercial		Varies	NE	NE	NE

Notes:

VOCs = Volatile Organic Compounds

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics

ORO = Oil Range Organics

GRO = Gasoline Range Organics

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

bgs = below ground surface

ND = not detected above the laboratory reporting limit

-- = not analyzed

LA RWQCB SSL = Los Angeles Regional Water Quality Control Board Soil Screening Level

ESL = San Francisco Bay Regional Water Quality Control Board Environmental Screening Level-
Direct Exposure Human Health Risk Levels (Shallow Soil Exposure)

CHHSL = California Human Health Screening Levels

Table 4
Groundwater Analytical Results
VOCs (8260B) & TPH (8015B)
1795 Long Beach Boulevard
Long Beach, California
December 6 & 7, 2016

Boring	Chloroform (µg/L)	PCE (µg/L)	Other VOCs	TPH- GRO (µg/L)	TPH- DRO (µg/L)	TPH- ORO (µg/L)
SV10-GW	ND	2.6	ND	ND	380	710
SV13-GW	ND	1.1	ND	ND	330	500
SV14-GW	ND	7.6	ND	--	--	--
SV15-GW	6.8	2.6	ND	ND	ND	ND
Laboratory Reporting Limit	0.50	0.50	Varies	Varies	Varies	Varies
MCL	70*	5.0	Varies	NE	NE	NE

Notes:

VOCs - Volatile Organic Compounds

PCE = Tetrachloroethene

TPH- Total Petroleum Hydrocarbons

DRO=Diesel Range Organics

ORO=Oil Range Organics

GRO=Gasoline Range Organics

µg/L = micrograms per liter

ND = not detected above the laboratory reporting limit

-- = not analyzed

NE= not established

MCL =State of California Maximum Contaminant Levels for Drinking Water

*= No established MCL for chloroform, so the detections were compared to the USEPA Maximum Contaminant Level Goal (MCLG)

Table 1
Groundwater Analytical Results
1795 Long Beach Boulevard
Long Beach, California
March 9, 2017

Boring	Chloroform (µg/L)	PCE (µg/L)	Other VOCs
RBH-1	1.7	6.7	ND
Duplicate	1.8	7.1	1.0 Chloromethane
RBH-2	ND	4.9	ND
RBH-3	ND	4.2	ND
RBH-4	1.7	3.4	1.1 Chloromethane
RBH-5	2.3	1.2	ND
RBH-6	2.0	4.1	ND
RBH-7	6.9	7.5	0.94 Bromodichloromethane
<i>Laboratory Reporting Limit</i>	<i>0.50</i>	<i>0.50</i>	<i>Varies</i>
<i>RSL THQ 1.0</i>	<i>0.22</i>	<i>11</i>	<i>Varies</i>
<i>RSL THQ 0.1</i>	<i>0.22</i>	<i>4.1</i>	<i>Varies</i>
<i>MCL</i>	<i>70*</i>	<i>5.0</i>	<i>Varies</i>

Notes:

VOCs - Volatile Organic Compounds Method 8260B

PCE = Tetrachloroethene

µg/L = micrograms per liter

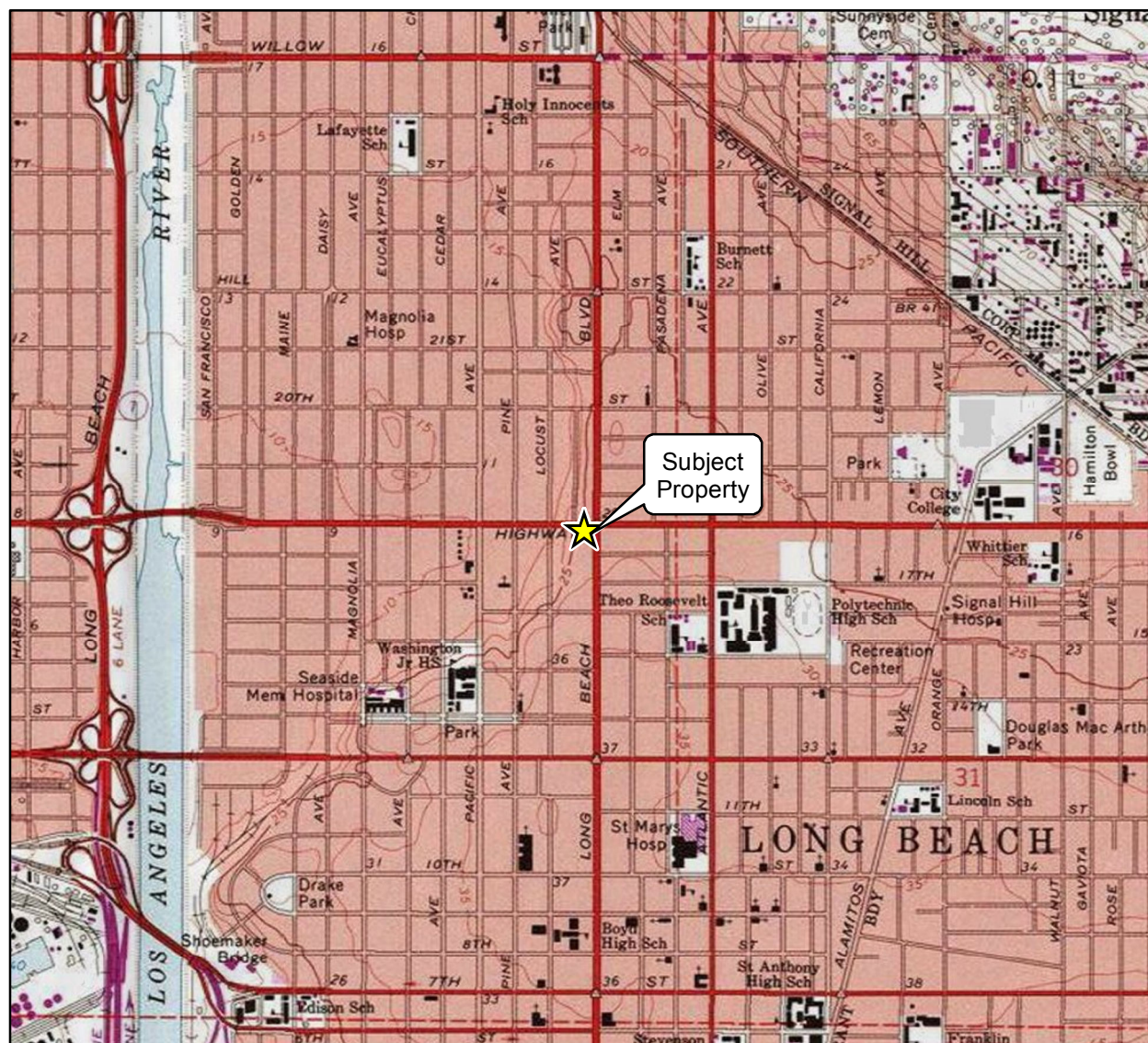
ND = not detected above the laboratory reporting limit

RSL=Regional Screening Level

MCL =State of California Maximum Contaminant Levels for Drinking Water

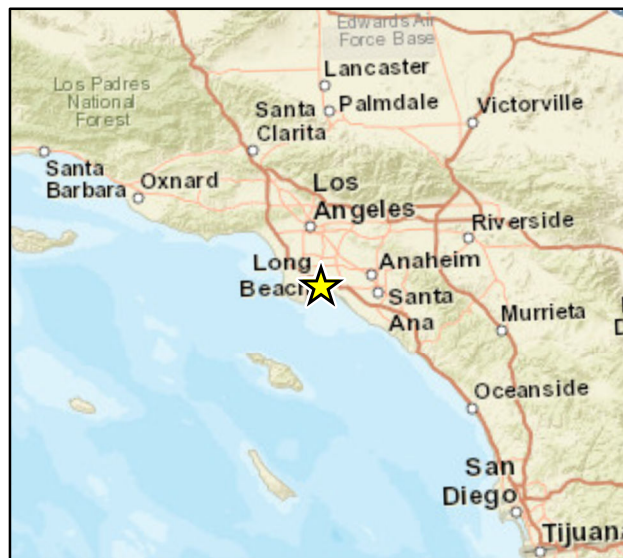
THQ = Target Hazard Quotient, ratio of the potential exposure to the substance and the level at which no adverse effects are expected

*= No established MCL for chloroform, so the detections were compared to the USEPA Maximum Contaminant Level Goal (MCLG)



Imagery provided by National Geographic Society, ESRI and its licensors © 2017. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

0 1,000 2,000
 Scale in Feet



Vicinity Map

Figure 1



Site Map and Soil Boring Location Map

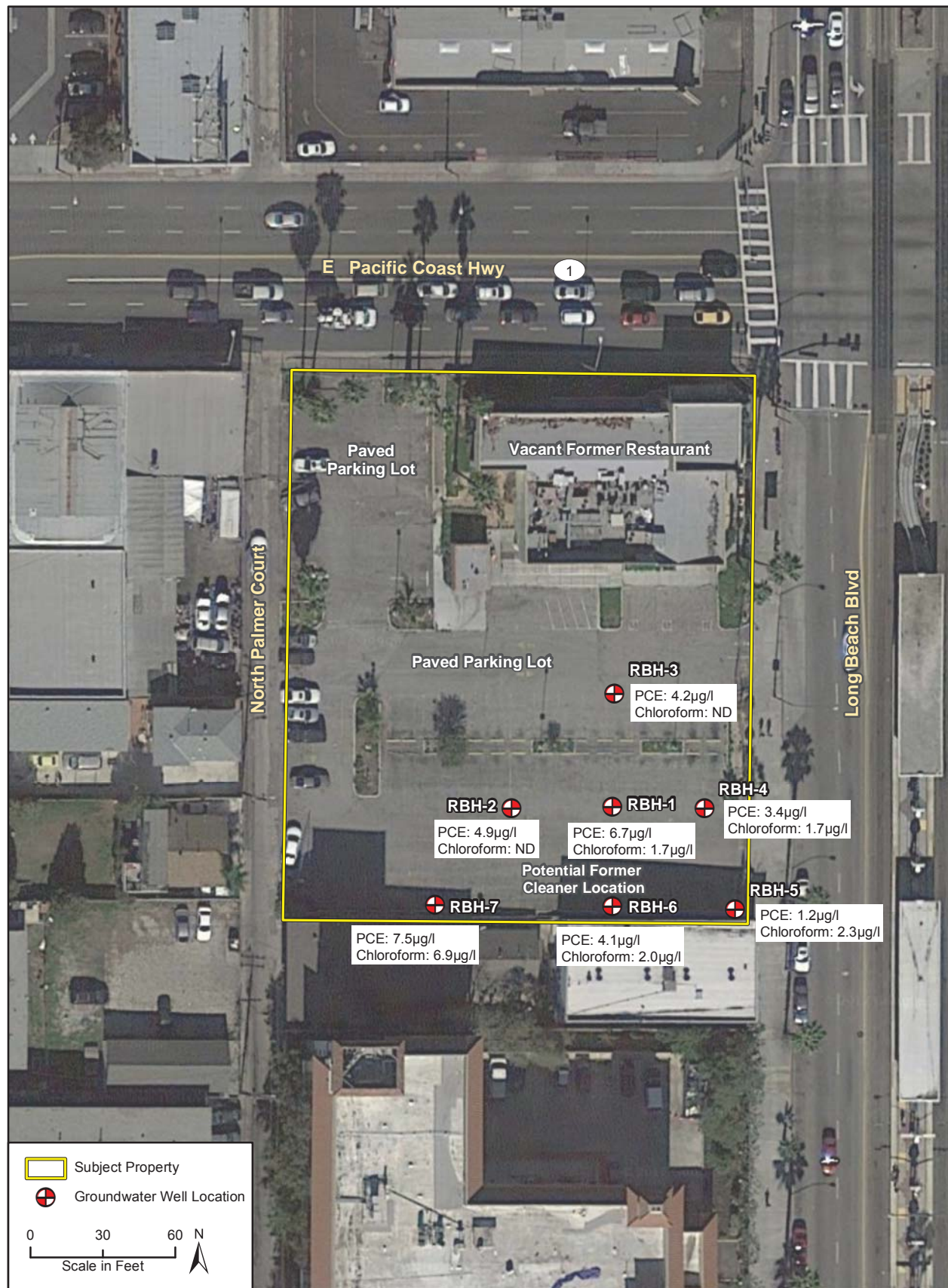
Figure 2



Imagery provided by Google and its licensors © 2016.

Sampling Location Map

Figure 2



Imagery provided by Google and its licensors © 2016.

Groundwater Well Location Map

Figure 2

Appendix A

Excavation Permit



CITY OF LONG BEACH

DEPARTMENT OF PUBLIC WORKS
Website: www.longbeach.gov/pw

333 W. OCEAN BLVD, 10TH FLOOR • LONG BEACH, CALIFORNIA 90802 • (562) 570 - 6784

I hereby make application for a permit to construct the following improvements or to temporarily occupy the following street(s) in the City of Long Beach subject to the applicable provisions of the Long Beach Municipal Code in consideration of the execution of a permit, the applicant hereby agrees to indemnify, hold harmless and defend the City of Long Beach, its boards and commissions, and their official, employees, and agents against all liability, costs, losses, suits, claims, demands, settlements, damages, actions and causes of action including attorneys fees sustained as a result of, or arising out of, or in any manner connected with any and all operations authorized or permitted by this permit. Applicant further agrees to comply with all applicable insurance requirements of the Long Beach Municipal Code.

Job Address: 1795 LONG BEACH BLVD Permit Number: PWP39445
Type of Permit: EXCAVATION
Description: Perform 3 each soil borings to collect ground water samples in alley south of Pacific Coast Highway and west of Long Beach Blvd. Alley will not be closed during the work. Department of Health and Human Services permit No.2381 in file.

24 HOUR ADVANCE NOTICE IS REQUIRED FOR INSPECTION
BUSINESS HOURS ARE: 7:30 AM TO 4:00 PM
For TSO/Street/Excavation Call: (562) 570-5160
For Sewer Call: (562) 570-2321, (562) 570-2322

Government Code Section 4216.2 requires a "DIG ALERT IDENTIFICATION NUMBER" be issued before a "permit to excavate" is valid. For DIG ALERT I.D. NO. call underground service alert at (800) 422-4133 two (2) days before you dig.

SEE SPECIAL CONDITIONS ATTACHED

Approved by: [Signature] (For City Engineer) Signed: [Signature] (Permittee)

Date Issued: 7/25/17 Permit Expires:
This permit is only valid through the expiration date as long as your state license and liability insurance are current.

Property Owner Name: 1795 LONG BEACH PCH LLC LESSEE
Mailing Address: 9626 OAK PASS RD, LONG BEACH CA 90813
Permittee Name: H & P MOBILE GEOCHEMISTRY INC (pw) Office: (760)804-9678
Address: 2470 IMPALA DR , CARLSBAD, CA 92010
City License No: BU2170402 10/7/2017

Jobsite Contact: Matt Pendleton (213)321-8398
24hr Emergency Contact: Matt Pendleton (213)321-8398

Payor	Paid by: RINCON CONSULTANTS CK40237	Paid Amount	
		Check (CK)	\$4,141.80
Fees Paid	7071855	Miscellaneous Excavation Sur	\$241.80
	7071856	Miscellaneous Excavation	\$3,900.00
	CHECK	Total Paid:	\$4,141.80
		Receipt No:	03048894

Inspectors Comments:

Inspectors Name: _____
Insp. Signature: _____
Final Date: _____
Permit No. PWP39445

**** DUPLICATE ****

CITY OF LONG BEACH
333 W.Ocean Blvd

Office:DV Cashier:alhofer

Date/Time: 7/25/2017 10:56 AM

Trans:30

4000 LMR Fees

Receipt #: 03048894

Acct#: 878079

Name: PWP39445

Payment Total: \$4,141.80

Transaction Total \$4,141.80

Tender: CHECK \$4,141.80

Thank you for your payment.

www.longbeach.gov

>> Customer Copy <<

**** DUPLICATE ****

Permit Number: **PWP 39445**

Date: **JUN 30 2017**

PUBLIC WORKS PERMIT APPLICATION PLEASE PRINT

Project Address/Location: **1795 Long Beach Blvd.**

Applicant: Matt Pendleton		Email Address: mpendleton@rincenconsultants.com	
Firm Name (DBA): H & P Mobile Geochemistry		Firm Phone Number: 805 760-8049678	
Address: 2470 Impala Drive	City: Carlsbad	State: California	Zip Code: 92010
Contact Name at Job Site: Matt Pendleton		Contact Phone Number: 213-321-8398	
State License Number: BU21704024 920371	Class: C57-Well Drilling	Expiration Date: 08/31/2018 ✓	
City License Number: BU21704024	Expiration Date: 10/07/2017 ✓		
Liability Insurance Carrier: STER	Policy Number:	Expiration Date: 10/17/2017	

★ **NOTE:** The names listed on the STATE LICENSE, CITY LICENSE & INSURANCE POLICY must be identical. If they are not, they must be corrected before a permit may be issued.

STREET IMPROVEMENT

Please indicate quantities for each type of improvement proposed.

IMPROVEMENT:	QUANTITY:	IMP VALUE:
Curb - All types	L.F.	
Comb. C & G	L.F.	
Sidewalk	S.F.	
Apron (Residential)	S.F.	
Apron (Commercial)	S.F.	
Alley	S.F.	
Pavement	S.F.	

Total Value: _____

C.L.B. Dwg. No. _____

Please complete sketch on back

*If there is a tree involved, an arborist report will be required prior to issuance of the permit.

TEMPORARY STREET OCCUPANCY

Please indicate type of encroachment required and dimensions of street area to be occupied.

☐ Bin Start date: _____ End date: _____

☐ Fence ☐ Structures ☐ Materials

☐ Pedestrian Canopy ☐ Equipment

Street Area: _____ X _____ = _____ S.F. / L.F.

The term of the permit is for _____ days beginning on date issuance.

Please complete sketch on back

EXCAVATION PERMIT DATA

Please provide the following information:

Purpose of Excavation: **Advance 3 soil borings to collect grab groundwater samples**

Franchise or Permit Number: _____

Width	Length	SQ. Ft	Surface
3 ft.	1 ft	3	Asphalt
Total SQ. FT.		3	

3900

Permit Fee \$ **4840.54 4141.80** ✓

Title/Company **Rincen Consultants/Associate Geologist**

Phone No. **(213) 321-279-2108**

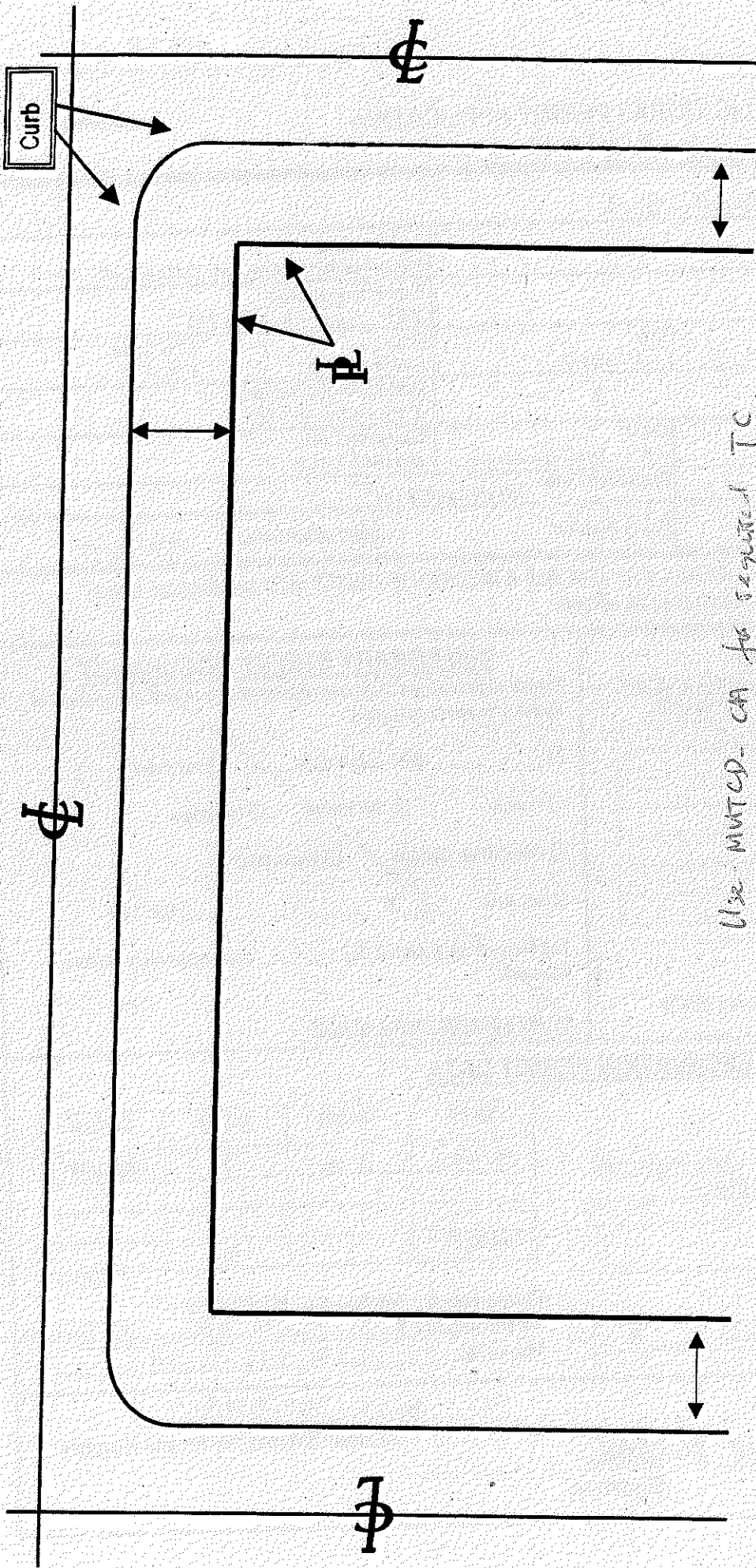
MONITORING WELL DATA

# of Mon. Wells	Min. Depth B.G.S. ft.

⊗ **Matt Pendleton**
Contractor/Applicant Name

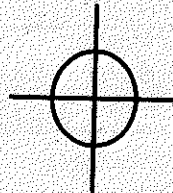
⊗ **Matt Pendleton**
Signature

Ⓜ(213) 321-8398
24 Hour Emergency Phone Number



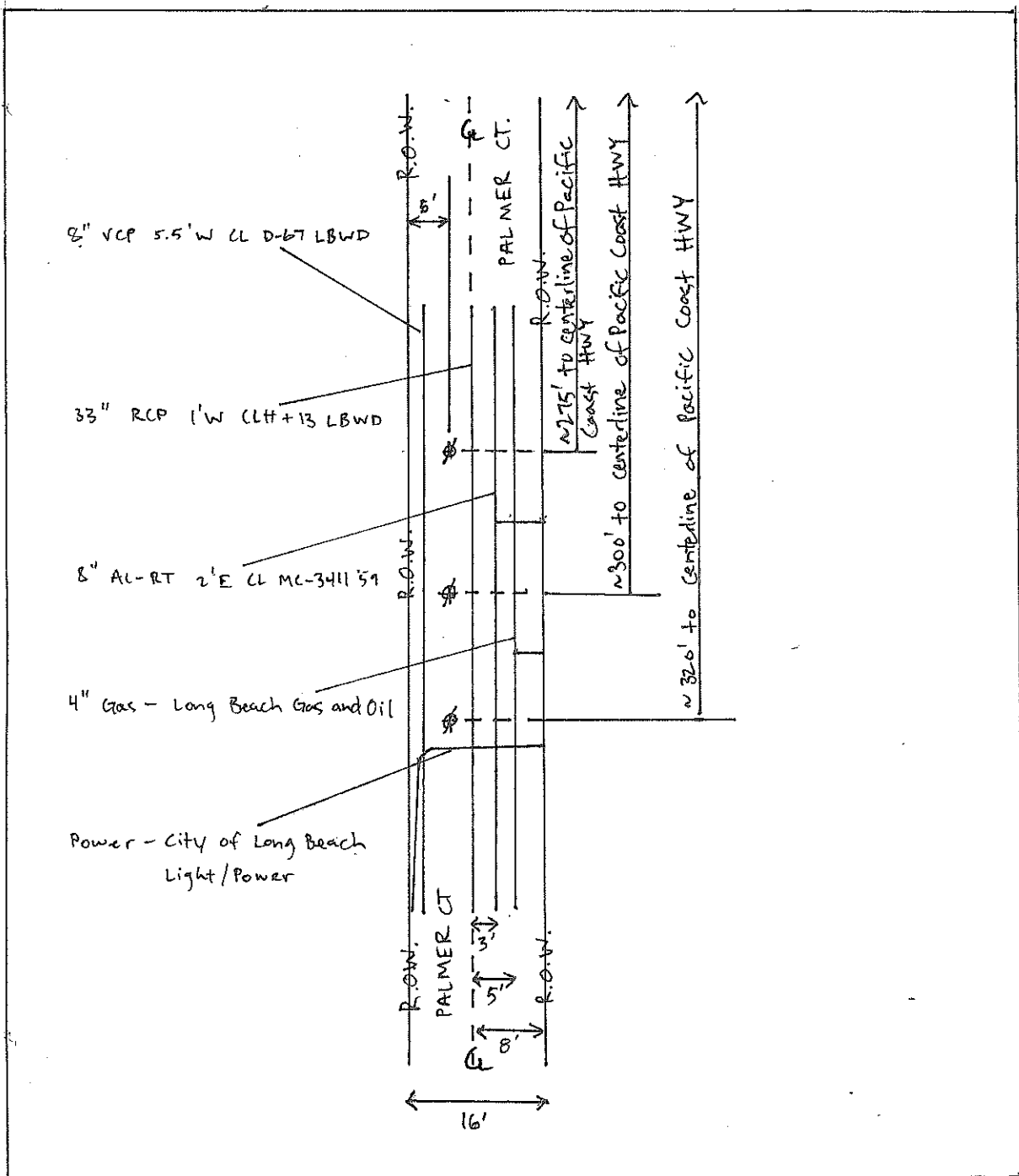
Use MUTCD - CA for segmented TC.

Contractor: _____
 Location: _____
 Section Map Number: _____ Permit Number: _____
 Lot Number: _____ Block Number: _____
 Tract: _____
 Date: _____
 Approved by Planning: _____
 Approved by Traffic: _____
 Reference: _____
 Applicable Charge Number: _____



Approved by:
 Sean Crumby
 Deputy Director of Public
 Works/City Engineer

By: _____



↑
N

Scale (Feet)

Site Plan

LEGEND

✱ Proposed Boring (3 Locations)

Subject Property: 1795 Long Beach Blvd.
Long Beach, CA

Business Address: H&P Mobile Geochemistry
2470 Impala Drive
Carlsbad, CA

Contact: Matt Pendleton - 213-321-8398

Excavation Permit Application

Date: 6/29/2017

Applicant: Matt Pendleton - 213-321-8398 - mpendleton@rinconconsultants.com

Work Scope:

On July 6, 2017, H&P Mobile Geochemistry will use a direct push geoprobe to drill three soil borings to collect groundwater samples at ~30 feet below grade. In one of the boring locations, a soil vapor probe will be installed at a depth of 5 feet below grade. The borings will be backfilled with bentonite or soil cuttings and the surface will be capped to match the adjacent surface materials.

The work being done for this project will take place in the public right-of-way, along Palmer Court, between ~250 and ~350 feet south of the intersection of Palmer Court and Long Beach Boulevard to the north. The width of the Geoprobe that will be used by H&P Mobile Geochemistry is ~9 feet wide, while the alley is 16 feet wide. The working area will not restrict cars from passing alongside the Geoprobe and traffic will be able to pass through without access limitations due to the work being performed.

FILE COPY

SPECIAL CONDITIONS

To be attached and made a part of

Excavation Permit Number PWP39445

Issued – 7/5/2017

Permittee – H&P Mobile Geochemistry

Work Location – 1795 Long Beach Blvd.

Project Description – Perform 3 each soil borings to collect ground water samples in alley south of Pacific Coast Highway and west of Long Beach Blvd. Alley will not be closed during the work. Department of Health and Human Services permit No.2381 in file.

*Permittee is responsible for making all required notifications**

1. The permittee's insurance provided for this permit expires at midnight on 10/17/2017. Should this insurance expire before the completion of the work under this permit, then on the day this insurance expires, permittee shall stop all work, make the work site safe, then vacate the area. (Should the expiration date be a Sunday, then on the Saturday before, all work shall stop and the work site shall be made safe.) In accordance with the LBMC Section 2.84.040 (C), work may resume only after an insurance renewal has been submitted and has been approved by both the Risk Manager and the City Attorney's office.
2. Permittee shall notify the City of Long Beach, Public Works, Construction Inspection at (562) 570-5160, 48 hours prior to the start of any work. Please provide the following information:
 - Name of the permittee.
 - The permit number.
 - Type of construction.
 - Starting date and time of construction.
 - The name and telephone number of the permittee's representative who will be present at the work site.
 - The Underground Service Alert ticket number.
 - The permittee shall notify the City inspector of the daily work in progress and the type of inspection required.
3. After work begins, the permittee shall notify the City inspector of the daily work in progress and the type of inspection required. Failure to contact the City inspector or the use of unacceptable materials or unacceptable work shall result in a "Stop Construction Notice," being issued. Work shall not resume until corrections have been made.
4. California Government Code Section 4216.9 (a state law) requires you to obtain a DigAlert identification number before this "permit to excavate" can be valid. To get your DigAlert identification number, call Underground Service Alert of Southern California a.k.a. DigAlert at 8-1-1 or visit www.digalert.org at least two working days, but not more than 14 days before digging. In the case of an emergency, call 1 (800) 922-3459 (24-hrs) or 1 (800) 227-2600 your State One-Call Center Number.
5. Permittee shall comply with all applicable laws, ordinances, rules and regulations of and obtain permits from all federal, state and local governmental authorities having jurisdiction over the permit area and Permittee's use thereof.
6. If for any reason the City determines that these permit fees (if any) are considered to be inadequate to cover its costs, the City reserves the right to collect additional fees.



7. If and when temporary "NO PARKING" signs are used for this work, they shall be placed at least twenty-four (24) hours before hand and have the following information printed on them:
- The name of the permittee/company or City Department performing the work.
 - The type of work being done.
 - The phone number to call for information about the work.
 - The starting date and ending date of the parking restriction.
 - The starting time and ending time of the parking restriction.
 - The emergency phone number of the permittee or contractor.
 - The applicable excavation permit number.

Temporary "NO PARKING" signs can be obtained from the City of Long Beach, Public Works, Construction Inspection Section on the 10th Floor of City Hall.

8. Long Beach Municipal Code (LBMC) Chapter 14.08 states that:
- This permit is not transferable.
 - This permit shall be kept at the work site and be shown on demand to a City representative.
 - The permittee shall comply with California Government Code Section 4216, and following, concerning Underground Service Alert paint markings (and any other construction related markings). These markings shall not be made more than 14 days prior to the start of work and the markings shall be removed upon completion of the work. Consult with the Public Works Inspector for an approved removal method.
 - The City Engineer may revoke this permit unless the work begins within (60) sixty days after its issuance and is diligently performed to completion, in the sole opinion of the City Engineer.
 - All spoils, debris and excess materials shall be removed from the work site within 3 days after the completion of the work.
 - Permittee shall, at their sole expense, within ten (10) days after receipt of written notification from the City Engineer to do so, remove any improvement or facilities or, with the prior approval of the City Engineer, relocate them to a site designated by the City Engineer if at any time the improvement or facilities interfere with the use, repair, improvement, widening, change in grade, or relocation of any right-of-way or highway, or interfere with the construction of any subway, viaduct or other underground conduit or structure of any kind.
 - Any pavement restored by the permittee shall be maintained by permittee for a period of one (1) year after the completion of the work. If the permittee fails to maintain the pavement during this period, the permittee will be given a 5-day notice to repair or restore the pavement. If the permittee does not repair or restore the pavement, the City may have the work done and charge its cost plus 25% to the permittee.
9. **Standard working hours** shall be restricted to between 7:30 a.m. and 3:30 p.m. Additional work hour restrictions for certain streets may be stated further below in these special conditions, in the attached "Traffic Control Requirements" and/or in the attached traffic control plan(s).
10. Work is not permitted on Sundays.
11. Non-standard work hours, including work on Saturday, must be pre-approved by the Public Works Inspection office (562) 570-5160 and will include additional fees.
12. The City's noise ordinance restricts pre-approved work days and hours to Monday-Friday from 7:00a.m. to 7:00p.m. and on Saturdays from 9:00a.m. to 6:00p.m.
13. If noise from this work is not in compliance with the City's noise ordinance, Daniel Philips, Environmental Health Bureau, (562) 570-4297, shall be notified and the work hours shall be revised so that the noise is in compliance.
14. The Contractor shall become familiarized with all existing installations, both public and private, on the work site and shall provide adequate safeguards to prevent damage to existing structures and improvements. Any damage to property from any cause, which might have been prevented by the

Contractor, the Contractor's employees, agents or subcontractors, shall be repaired within 10 calendar days after such damage at the Contractor's own cost and expense. Any and all water service breaks shall be repaired the same day.

15. Approval of the attached plans by the City of Long Beach does not constitute a representation as to the accuracy of the location or the existence or non-existence of any underground utility pipe or structure within the limits of this project. The contractor is required to take due precautionary measures to protect the utility lines shown and any other line not on record or not shown on these plans. All utility lines and structures that may be damaged on account to the contractor's operations shall be repaired or replaced at the contractor's expense, to the satisfaction of the City.
16. The Contractor shall obtain a permit from California Division of Industrial Safety for the construction of trenches or excavations which are five feet or deeper. Sheeting, shoring and bracing for the trench excavation shall conform to the requirements of "Construction Safety Orders," Title 8, Division of Industrial Safety, State of California. Contact one of the Cal/OSHA Enforcement Unit district office nearest you: **Los Angeles:** 320 West 4th Street, Ste. 850, Los Angeles 90013, (213) 576-7451, fax (213) 576-7461; **Santa Ana:** 2000 E. McFadden Ave., Ste 122, Santa Ana 92705, (714) 558-4451, fax (714) 558-2035; **Torrance:** 680 Knox Street, Ste. 100, Torrance, 90502, (310) 516-3734, fax (310) 516-4253. Or check the web at: <http://www.dir.ca.gov/dosh/DistrictOffices.htm>.
17. Any changes made to the approved plan issued with this permit (such as a change in the permitted facility's location or its route) shall require approval by the City Engineer before starting or continuing any work. Provide seven sets of revised plans for approval before starting or continuing any work.
18. Removal, adjustment or relocation of utilities or any work on the area of their recorded easements shall be done only with the approval of the utility owners, obtained before starting the work.
19. No water or liquids, except potable water, shall be discharged onto city streets at anytime for any reason without proof of a National Pollutant Discharge Elimination System (NPDES) permit. To obtain a NPDES permit call (213) 576-6600.
20. The contractor is required to perform self-inspections to evaluate if minimum appropriate controls to reduce pollutant discharges from entering the storm drain system are being met. Frequent self-inspections are the most effective method to verify implementation of the Best Management Practices (BMP). The contractor shall make weekly self-inspections during the dry season and daily during the rainy season, October 1st through April 15th.
21. Best Management Practices (BMP's) are attached and are made a part of this permit. If the City Engineer, a Public Works inspector or an authorized city representative determines that additional BMP's or corrective steps for existing ones are necessary, permittee shall immediately comply with the requests.
22. The discharge of liquids from concrete truck washouts into storm drains, open ditches, streets, gutters or catch basins is strictly **prohibited**.
23. Paving, street saw cutting and sidewalk saw cutting are prohibited during a storm event of 0.25 inches or greater (except during emergency conditions).
24. Concrete thrust blocks exist at all tees, bends, crosses and other water main fittings. Contractor shall work with caution when excavating in the vicinity of any thrust block. Contractor shall not disturb thrust blocks.
25. A minimum of 12-inches clearance shall be provided between the caps and any City of Long Beach facility crossed, including concrete encasement or sand cement slurry used as backfill. No part of any

City of Long Beach facility is to be included within any concrete encasement or sand cement slurry backfill.

26. If 12-inches of separation cannot be made between the caps and any existing City of Long Beach, Gas & Oil Department gas line, the permittee shall contact the Long Beach Gas & Oil-Corrosion Prevention Section at (562) 570-2083 for specific procedures.
27. Extreme caution shall be exercised to avoid breaking sewer house and gas service lateral connections. In case of accidental or unavoidable breakage or disturbance, reconstruction shall be in accordance with the City of Long Beach Standard Specifications.
28. A "Notice of Construction" shall be written by the permittee, and then shall be approved by a City of Long Beach, Public Works Inspector. After such approval, the notice shall then be delivered to the affected residences, property owners and businesses at least one (1) week in advance of any work. An outline for the notice is attached.
29. Provide roadway access for emergency vehicles at all times.
30. The City Traffic Engineer (562) 570-6331 and the Construction Inspection Section (562) 570-5160, shall be notified 24 hours before the removal of any striping, pavement markings, legends or raised pavement markers. All striping, legends and crosswalk striping removal shall be done by grinding. They shall be restored as directed by the City Traffic Engineer. The contractor shall make such replacement with like materials (i.e., thermoplastic replacing thermoplastic, paint replacing paint) and this shall be done in accordance with the City of Long Beach Standards and Specifications.
31. Existing traffic signal loop detectors damaged by construction shall be replaced in kind to match existing within five (5) working days. All loops shall be cut four-inches deep and advance loops shall have four (4) turns.
32. The office of the City Traffic Engineer (562) 570-6764 prohibits traffic lane closures on _____, between the hours of 6:00 a.m. - 8:30 a.m. and between the hours of 3:30 p.m. - 6:30 p.m., Monday through Friday. Lane closures are permitted only between the hours of 8:30 a.m. and 3:30 p.m., Monday through Friday.
33. The permittee shall be responsible for resetting any disturbed or destroyed centerline monuments, benchmarks, or property line corners to the satisfaction of the City Engineer. Replace brass cap, spike & washer, etc...with same. See City Standard No. 202 for replacing Type "C" monuments.
34. Notify Long Beach Transit, of any work affecting public bus stops. Contact John Carlson at (562) 808-8801, 48 hours prior to start of work.
35. Notify the Metro Transit Authority (MTA), of any work affecting the Metro Blue Line at (213) 922-6000, 48 hours prior to start of work.
36. If work is within three blocks of a Long Beach Elementary School, notify Paul B. Bailey, Transportation Director of the Long Beach Unified School District, (562) 426-6176, 48 hours prior to start of work.
37. If work is within three blocks of a Long Beach Fire Station, notify the fire station at the non-emergency dispatch number (562) 570-9400 of your working location and work schedule, 48 hours prior to start of work.
38. According to L.B.M.C. Section 14.08.170 Subsurface Installations-Depths, the top of main pipe, service pipe or shoring structure shall be installed at a minimum of 36-inches below gutter grade. Permittee shall provide the Inspector as-built drawings indicating depth of cover over the pipeline at a maximum of 100-foot intervals.
39. Maximum length of open trench shall comply with Section 306.1.1.2 of the Standard Specifications of Public Works.

40. All trench backfill and pavement restoration shall be inspected by a City of Long Beach, Public Works inspector. Adhere to the attached City of Long Beach Standard Plan No. 127 for trench and ac pavement replacement. Adhere to the attached Green Book Standard Plan 132-3, Concrete Pavement Replacement, for concrete cuts and their replacement. Provide certified copies of the aggregate compaction tests and ac compaction tests to the Public Works inspector.
41. All temporary steel plate bridging up to 1 1/4-inch thick shall have 12-inches of regress with temporary AC.
42. All temporary steel plate bridging 1 1/2-inch thick and thicker shall have 18-inches of regress with temporary AC.
43. Should any work covered under this permit or should any part of the traffic control for work under this permit extend into the jurisdiction of another city or governmental agency, then a permit or some other form of approval for your work or traffic control shall be required before any work may start. This excavation permit is issued pending that permit or approval.

44. **PARTIAL LIST OF AGENCIES TO CALL IN THE EVENT OF A HAZARDOUS MATERIAL SPILL/RELEASE:**

You are required by law to report all significant releases or suspected significant releases of hazardous materials including oil.

- To report a spill, call the following agencies:

1. Dial 911.
2. Call County of Los Angeles Hotline (800) 303-0003.
3. Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).
4. Call City of Long Beach Department of Public Works Inspection (562) 570-6150.
5. For spills only on Airport property Airport Dispatch (562) 570-2640.

- For spills of "Federal Reportable Quantities" of oil, chemicals, or other hazardous materials to land, air, or water, notify the National Response Center (800-424-8802). If you are not sure whether the spill is of a "reportable quantity," call the federal Environmental Protection Agency (800) 424-9346 for clarification.

- Agencies to call if you find or suspect contaminated soil or groundwater

Regional Water Quality Control Board:

Los Angeles Basin (213) 266-7500, California Environmental Protection Agency (Cal EPA),
Department of Toxic Substances Control (DTSC) (510) 540-3732

45. Either when the permit is issued or at any time thereafter until the completion of work or end of the temporary occupancy, the City Engineer may require additional conditions as he finds reasonably necessary for the protection of the right-of-way or highway, for the prevention of undue interference with traffic, or to assure the safety of persons using the right-of-way or highway.
46. The City Engineer reserves the right to adjust the working days and/or working hours as he finds reasonably necessary for the elimination of operational impacts to any school affected by the work allowed under this permit.
47. In accordance with Long Beach Municipal Code Sections 14.08.120(A.5), 14.08.130 & 14.08.320, the City Engineer reserves the right to: revoke the permit if work does not begin within sixty days, refuse to issue a permit if the permittee has previously failed or refused to comply with Chapter 14.08, or may stop any work if it is dangerous, unsafe, or a menace to life, health or property.

*******47 SPECIAL CONDITIONS ISSUED*******

Appendix B

Well Permit



CITY OF LONG BEACH
DEPARTMENT OF HEALTH AND HUMAN SERVICES
BUREAU OF ENVIRONMENTAL HEALTH
WATER QUALITY PROGRAM

2525 GRAND AVENUE, ROOM 220, LONG BEACH, CALIFORNIA CA 90815
562-570-4132



WELL PERMIT

PERMIT#: **2381**

DATE: **June 26, 2017**

**All work must be completed in accordance with Water Well Bulletin 74-81 and 74-90
PLEASE NOTIFY INSPECTOR 48 HOURS BEFORE DRILLING AND SUBMIT LOG(S) TO
vanna.kho@longbeach.gov , OR MAIL AT ADDRESS ABOVE.**

Site Address: **1795 Long Beach Blvd
Long Beach, CA 90813**

Owner: **AMCAL Multi-Housing, Inc.**

Owner Address: **30141 Agoura Rd Suite 100
Agoura Hills, CA 91301
818-700-0694**

Consulting Firm: **Rincon Consultants**

Consulting Firm Address **180 N. Ashwood Ave
Ventura, CA 93003
805-644-4455**

Drilling Company: **H & P Geochemistry**

Drilling Co. Address: **2470 Impala Dr
Carlsbad, CA 92010
800-834-9888**

Type Of Permit: **Soil Boring**

Type Of Well:

Total Number Of Well/Soil Boring: **3 Soil Borings**

This permit valid for one year from date above

Craig Wong
Cross-Connection/Water Quality

7 2901



CITY OF LONG BEACH
DEPARTMENT OF HEALTH AND HUMAN SERVICES
BUREAU OF ENVIRONMENTAL HEALTH
WATER PROGRAM
2525 GRAND AVENUE, ROOM 220, LONG BEACH, CALIFORNIA 90815
562-570-4132 OFFICE 562-570-4038 FAX



WELL PERMIT APPLICATION

Date: 6-12-17 Proposed Date: 6-26-17

Site Address: 1795 Long Beach Boulevard

Permit Delivery: ☐ Mail ☐ Fax ☐ Pick Up ☒ E-mail: mpendleton@rinconconsultants.com

Permit Type: ☐ New Well Construction ☐ Destruction ☒ Other: Soil boring

Well Type: ☐ Monitoring ☐ Cathodic ☐ Private Domestic ☐ Public Domestic
☐ Vapor Extraction ☒ Soil Boring Number of: Wells Borings 3

Well Owner Name: AMEAL Multi-Housing, Inc. Phone: 818 706-0694

Well Owner Address: 30141 Agoura Rd., Suite 100 Agoura Hills CA 91301
City State Zip Code

Consulting Firm Name: Rincon Consultants Phone: 805-644-4455

Consulting Firm Address: 180 N. Ashwood Ave Ventura CA 93003
City State Zip Code

Drilling Company Name: H & P Geochemistry Phone: 800-834-9888

Drilling Company Address: 2470 Impala Drive Carlsbad CA 92010
City State Zip Code

PROVIDE PLOT PLAN LOCATING EACH WELL CONSTRUCTED OR ABANDONED

Construction/Destruction Method
Type of casing, method of sealing etc.. (Use additional sheet or attachments)
<u>See attached plans</u>

I hereby agree to comply in every respect with all regulations of the Long Beach Department of Health and Human Services and with all ordinance and laws of the City of Long Beach and of the State of California pertaining to well construction, reconstruction and destruction. Upon completion of well and within ten days perforations in casing, and any other data deemed necessary by other city agencies.

Print Name: Matt Pendleton Applicants Signature: Matt Pendleton

Telephone: 805-644-4455 Fax Number: E-mail: mpendleton@rinconconsultants.com

☒ Approved

☐ Approved with Conditions

☐ Denied

If denied or approved with conditions, report reason or conditions here:

Approved By: JY Date: 6/20/17

CITY OF LONG BEACH
333 W. Ocean Blvd
Office: HEALTH
Date/Time: 6/15/2017 3:21 PM
Trans: 40
Dept. of Health & Human Services
2525 Grand Ave., CA 90815
562-570-4000
Cashier: CrPrado

Date: 06/15/17

Check #: 40092

☐ Cash ☐ Credit Card

☐ HE0617 ☐ HE0613 ☐ HE0621 ☒ HE0620 ☐ HE0905A

TO

HEALTH

FI

RED

0653

Consultants

NAME/COMPANY

Payment Total: \$395.00

\$395.00

Transaction Total

\$395.00

Long Beach Blvd

DESCRIPTION/EVENT/ADDRESS

Clerk Signature: SC

☐ 543003 ☐ 543004 ☐ 543005 ☐ 710001 ☐ 778004

☐ Temporary Food Facility ☐ Farmers Market ☐ Mobile FTP

Pre-pkgd TFF @ \$ Hawkers @ \$

☐ TFF Late Fee \$ ☐ TFF Field Licensing Fee \$

☐ 20% Discount per \$ - ☐ Administrative Citation \$

☐ Food Cart/Vehicle Impound Fee ☐ 1st ☐ 2nd ☐ 3rd \$ Cal Code Booklet @ \$

☐ Food Facility Walk thru first 1 1/2 hr. \$ ☐ Plan Check Consultation Fee \$

☐ Return Check Fee \$ ☐ Copies @ \$ ☐ Other:

Well Permits: ☐ 543004 ☒ 543005

☐ New Well Construction ☐ Destruction

☐ Construction of Monitoring Well(s) @ \$ ☒ 1 Soil Boring \$ 395

☐ Well Abandonment/Destruction @ \$ ☐ Cathodic Well @ \$

☐ Construction of Drinking Water Well(s) @ \$ ☐ Water Line Clearance \$

☐ Cross Connection Test/Survey \$ ☐ Water Shut Down Test \$

Other:

Hazmat Program: ☐ 543004 ☐ 543005 ☐ 643007 ☐ 778020

☐ Site Characterization/Mitigation \$ ☐ Noise Variance \$

☐ Body Art Practitioner Annual Registration \$ ☐ Body Art Event Organizer \$

☐ Tattooing ☐ Body Piercing ☐ Branding ☐ Permanent Cosmetic Application ☐ Temporary Body Artist \$

Other:

\$33.00 charge will be added to all returned checks

OFFICE USE ONLY

Sub Total Amount: \$ 395 Discount: - Total Amount Paid: \$ 395

Cashier Signature: Date: 6/15/17

White Copy - File

Yellow Copy - Customer

Pink Copy - Operator

Thank you for your payment.
www.longbeach.gov
Customer Copy

Appendix C

Soil Boring Log

LOG OF BORING RBH-9

(Page 1 of 1)

AMCAL 1795 Long Beach Boulevard Long Beach, California	Date Completed : July 31, 2017
Rincon Project Number: 16-03146	Location : SW of Site on North Palmer Court
	Method : Hand Auger (0' to 10.7' bgs), Geoprobe (10.7' to 30' bgs)
	Drilled By : H&P Mobile Geochemistry
	Logged By : Matt Pendleton

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID	Water Level
0				Asphalt		
		CL		CLAYEY SILT, 30% Clay, 70% Silt, brown, slightly moist, non-plastic, no odor or discoloration, soft.	0	
5		ML		CLAYEY SILT, 10% Clay, 90% Silt, brown, slightly moist, slightly plastic, stiff, small (<2 mm diameter) sized black discolored coatings.	0	
10		ML		CLAYEY SILT, 20% Clay, 80% Silt, brown, slightly moist, slightly plastic, stiff.	0	
		CL		SILTY CLAY, 40% Silt, 60% Clay, brown to dark brown, slightly moist, slightly plastic, stiff.	0	
15		SW		SAND, 100% Sand, medium to coarse grained, light to medium brown, slightly moist, loose.	0	
		SC		CLAYEY SAND, 5% Clay, 95% Sand, brown, fine to coarse grained sand, very moist, slightly firm, some rust red colored streaks.	0	
20		SP		SAND, 100% Sand, brown, fine to coarse grained, moist, non-plastic, slightly firm.	0	
25		SP		SAND, 100% Sand, tan to brown, fine to medium grained, slightly moist, non-plastic, loose.	0	
		SP		SAND, 100% Sand, light brown, medium to coarse grained, moist, slightly firm.	0	
30				End of boring.		

Appendix D

Groundwater Laboratory Analytical Report

08 August 2017

Mr. Matt Pendleton
Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

H&P Project: RC080117-10
Client Project: 16-03146 / 1795 Long Beach Blvd

Dear Mr. Matt Pendleton:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 31-Jul-17 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,



Janis La Roux
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP and the National Environmental Laboratory Accreditation Conference (NELAC). H&P is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.



Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RBH-10	E708002-01	Water	31-Jul-17	31-Jul-17
RBH-9	E708002-02	Water	31-Jul-17	31-Jul-17
RBH-8	E708002-03	Water	31-Jul-17	31-Jul-17

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

DETECTIONS SUMMARY

Sample ID: **RBH-10**

Laboratory ID: **E708002-01**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloroform	2.4	1.0	ug/l	EPA 8260B	
Tetrachloroethene	1.2	1.0	ug/l	EPA 8260B	

Sample ID: **RBH-9**

Laboratory ID: **E708002-02**

Analyte	Result	Reporting Limit	Units	Method	Notes
Tetrachloroethene	1.8	1.0	ug/l	EPA 8260B	

Sample ID: **RBH-8**

Laboratory ID: **E708002-03**

Analyte	Result	Reporting Limit	Units	Method	Notes
Tetrachloroethene	1.6	1.0	ug/l	EPA 8260B	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10 (E708002-01) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Dichlorodifluoromethane (F12)	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
Chloroform	2.4	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	1.2	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10 (E708002-01) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Bromoform	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Isopropylbenzene (Cumene)	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		104 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		112 %	62-139		"	"	"	"	
Surrogate: Toluene-d8		101 %	75-125		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	75-125		"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-9 (E708002-02) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Dichlorodifluoromethane (F12)	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	1.8	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-9 (E708002-02) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Bromoform	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Isopropylbenzene (Cumene)	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		101 %	75-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	62-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.4 %	75-125		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	75-125		"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-8 (E708002-03) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Dichlorodifluoromethane (F12)	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	1.6	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-8 (E708002-03) Water Sampled: 31-Jul-17 Received: 31-Jul-17									
Bromoform	ND	1.0	ug/l	0.05	EH70218	01-Aug-17	01-Aug-17	EPA 8260B	
Isopropylbenzene (Cumene)	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		98.1 %	75-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.2 %	62-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.3 %	75-125		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.9 %	75-125		"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
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Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

Blank (EH70218-BLK1)

Prepared & Analyzed: 01-Aug-17

Dichlorodifluoromethane (F12)	ND	1.0	ug/l
Chloromethane	ND	1.0	"
Vinyl chloride	ND	1.0	"
Bromomethane	ND	1.0	"
Chloroethane	ND	1.0	"
Trichlorofluoromethane (F11)	ND	1.0	"
Methylene chloride (Dichloromethane)	ND	1.0	"
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"
trans-1,2-Dichloroethene	ND	1.0	"
1,1-Dichloroethane	ND	1.0	"
1,1-Dichloroethene	ND	1.0	"
2,2-Dichloropropane	ND	1.0	"
cis-1,2-Dichloroethene	ND	1.0	"
Chloroform	ND	1.0	"
Bromochloromethane	ND	1.0	"
1,1,1-Trichloroethane	ND	1.0	"
1,1-Dichloropropene	ND	1.0	"
Carbon tetrachloride	ND	1.0	"
1,2-Dichloroethane (EDC)	ND	1.0	"
Benzene	ND	0.50	"
Trichloroethene	ND	1.0	"
1,2-Dichloropropane	ND	1.0	"
Bromodichloromethane	ND	1.0	"
Dibromomethane	ND	1.0	"
cis-1,3-Dichloropropene	ND	1.0	"
Toluene	ND	0.50	"
trans-1,3-Dichloropropene	ND	1.0	"
1,1,2-Trichloroethane	ND	1.0	"
1,2-Dibromoethane (EDB)	ND	1.0	"
1,3-Dichloropropane	ND	1.0	"
Tetrachloroethene	ND	1.0	"
Dibromochloromethane	ND	1.0	"
Chlorobenzene	ND	1.0	"
Ethylbenzene	ND	0.50	"

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Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

Blank (EH70218-BLK1)

Prepared & Analyzed: 01-Aug-17

1,1,1,2-Tetrachloroethane	ND	1.0	ug/l							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.50	"							
Styrene	ND	1.0	"							
Bromoform	ND	1.0	"							
Isopropylbenzene (Cumene)	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
Bromobenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
p-Isopropyltoluene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
n-Butylbenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
Hexachlorobutadiene	ND	1.0	"							
Naphthalene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
Surrogate: Dibromofluoromethane	2.57		"	2.50		103	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.82		"	2.50		113	62-139			
Surrogate: Toluene-d8	2.45		"	2.50		97.9	75-125			
Surrogate: 4-Bromofluorobenzene	2.63		"	2.50		105	75-125			

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Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

LCS (EH70218-BS1)

Prepared & Analyzed: 01-Aug-17

Dichlorodifluoromethane (F12)	5.11	1.0	ug/l	5.00		102	32-152			
Chloromethane	4.64	1.0	"	5.00		92.8	50-139			
Vinyl chloride	4.92	1.0	"	5.00		98.5	58-137			
Bromomethane	5.30	1.0	"	5.00		106	53-141			
Chloroethane	5.16	1.0	"	5.00		103	60-138			
Trichlorofluoromethane (F11)	5.03	1.0	"	5.00		101	65-141			
Methylene chloride (Dichloromethane)	6.02	1.0	"	5.00		120	74-124			
Methyl tertiary-butyl ether (MTBE)	5.85	1.0	"	5.00		117	71-124			
trans-1,2-Dichloroethene	5.17	1.0	"	5.00		103	75-124			
1,1-Dichloroethane	4.97	1.0	"	5.00		99.5	77-125			
1,1-Dichloroethene	4.88	1.0	"	5.00		97.6	71-131			
2,2-Dichloropropane	5.17	1.0	"	5.00		103	60-139			
cis-1,2-Dichloroethene	5.57	1.0	"	5.00		111	78-123			
Chloroform	5.33	1.0	"	5.00		107	79-124			
Bromochloromethane	5.68	1.0	"	5.00		114	78-123			
1,1,1-Trichloroethane	5.05	1.0	"	5.00		101	74-131			
1,1-Dichloropropene	5.30	1.0	"	5.00		106	79-125			
Carbon tetrachloride	5.45	1.0	"	5.00		109	72-136			
1,2-Dichloroethane (EDC)	5.70	1.0	"	5.00		114	73-128			
Benzene	5.13	0.50	"	5.00		103	79-120			
Trichloroethene	5.42	1.0	"	5.00		108	79-123			
1,2-Dichloropropane	5.44	1.0	"	5.00		109	78-122			
Bromodichloromethane	5.41	1.0	"	5.00		108	79-125			
Dibromomethane	6.29	1.0	"	5.00		126	79-123			QL-1H
cis-1,3-Dichloropropene	5.44	1.0	"	5.00		109	75-124			
Toluene	4.99	0.50	"	5.00		99.8	80-121			
trans-1,3-Dichloropropene	5.44	1.0	"	5.00		109	73-127			
1,1,2-Trichloroethane	6.15	1.0	"	5.00		123	80-119			QL-1H
1,2-Dibromoethane (EDB)	6.40	1.0	"	5.00		128	77-121			QL-1H
1,3-Dichloropropane	5.47	1.0	"	5.00		109	80-119			
Tetrachloroethene	4.63	1.0	"	5.00		92.6	74-129			
Dibromochloromethane	5.55	1.0	"	5.00		111	74-126			
Chlorobenzene	5.15	1.0	"	5.00		103	82-118			
Ethylbenzene	4.89	0.50	"	5.00		97.9	79-121			

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Project: RC080117-10
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Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

LCS (EH70218-BS1)

Prepared & Analyzed: 01-Aug-17

1,1,1,2-Tetrachloroethane	5.38	1.0	ug/l	5.00		108	78-124			
m,p-Xylene	9.44	1.0	"	10.0		94.4	80-121			
o-Xylene	4.81	0.50	"	5.00		96.2	78-122			
Styrene	4.82	1.0	"	5.00		96.4	78-123			
Bromoform	5.33	1.0	"	5.00		107	66-130			
Isopropylbenzene (Cumene)	5.04	1.0	"	5.00		101	72-131			
1,1,2,2-Tetrachloroethane	5.93	1.0	"	5.00		119	71-121			
1,2,3-Trichloropropane	6.02	1.0	"	5.00		120	73-122			
n-Propylbenzene	4.95	1.0	"	5.00		99.0	76-123			
Bromobenzene	5.21	1.0	"	5.00		104	80-120			
1,3,5-Trimethylbenzene	5.03	1.0	"	5.00		101	75-124			
2-Chlorotoluene	5.36	1.0	"	5.00		107	79-122			
4-Chlorotoluene	5.37	1.0	"	5.00		107	78-122			
tert-Butylbenzene	4.97	1.0	"	5.00		99.4	78-124			
1,2,4-Trimethylbenzene	5.31	1.0	"	5.00		106	76-124			
sec-Butylbenzene	4.93	1.0	"	5.00		98.5	77-126			
p-Isopropyltoluene	5.20	1.0	"	5.00		104	77-127			
1,3-Dichlorobenzene	5.21	1.0	"	5.00		104	80-119			
1,4-Dichlorobenzene	5.40	1.0	"	5.00		108	79-118			
n-Butylbenzene	5.06	1.0	"	5.00		101	75-128			
1,2-Dichlorobenzene	5.46	1.0	"	5.00		109	80-119			
1,2-Dibromo-3-chloropropane	5.64	5.0	"	5.00		113	62-128			
1,2,4-Trichlorobenzene	5.47	1.0	"	5.00		109	69-130			
Hexachlorobutadiene	5.23	1.0	"	5.00		105	66-134			
Naphthalene	5.67	1.0	"	5.00		113	61-128			
1,2,3-Trichlorobenzene	5.56	1.0	"	5.00		111	69-129			

Surrogate: Dibromofluoromethane	2.66		"	2.50		107	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.94		"	2.50		118	62-139			
Surrogate: Toluene-d8	2.59		"	2.50		104	75-125			
Surrogate: 4-Bromofluorobenzene	2.47		"	2.50		99.0	75-125			

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Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

LCS Dup (EH70218-BSD1)

Prepared & Analyzed: 01-Aug-17

Dichlorodifluoromethane (F12)	4.80	1.0	ug/l	5.00		96.0	32-152	6.24	20	
Chloromethane	4.22	1.0	"	5.00		84.4	50-139	9.47	20	
Vinyl chloride	4.50	1.0	"	5.00		90.0	58-137	8.98	20	
Bromomethane	4.78	1.0	"	5.00		95.6	53-141	10.4	20	
Chloroethane	4.84	1.0	"	5.00		96.9	60-138	6.39	20	
Trichlorofluoromethane (F11)	4.88	1.0	"	5.00		97.6	65-141	2.93	20	
Methylene chloride (Dichloromethane)	5.42	1.0	"	5.00		108	74-124	10.5	20	
Methyl tertiary-butyl ether (MTBE)	4.87	1.0	"	5.00		97.5	71-124	18.3	20	
trans-1,2-Dichloroethene	5.00	1.0	"	5.00		100	75-124	3.29	20	
1,1-Dichloroethane	4.80	1.0	"	5.00		96.1	77-125	3.46	20	
1,1-Dichloroethene	4.82	1.0	"	5.00		96.4	71-131	1.19	20	
2,2-Dichloropropane	4.86	1.0	"	5.00		97.2	60-139	6.09	20	
cis-1,2-Dichloroethene	5.19	1.0	"	5.00		104	78-123	7.04	20	
Chloroform	4.95	1.0	"	5.00		99.1	79-124	7.32	20	
Bromochloromethane	5.01	1.0	"	5.00		100	78-123	12.6	20	
1,1,1-Trichloroethane	4.88	1.0	"	5.00		97.6	74-131	3.55	20	
1,1-Dichloropropene	5.10	1.0	"	5.00		102	79-125	3.67	20	
Carbon tetrachloride	5.52	1.0	"	5.00		110	72-136	1.34	20	
1,2-Dichloroethane (EDC)	5.00	1.0	"	5.00		100	73-128	13.2	20	
Benzene	4.88	0.50	"	5.00		97.7	79-120	4.94	20	
Trichloroethene	5.12	1.0	"	5.00		102	79-123	5.60	20	
1,2-Dichloropropane	5.05	1.0	"	5.00		101	78-122	7.29	20	
Bromodichloromethane	4.84	1.0	"	5.00		96.8	79-125	11.1	20	
Dibromomethane	5.61	1.0	"	5.00		112	79-123	11.5	20	
cis-1,3-Dichloropropene	5.00	1.0	"	5.00		100	75-124	8.45	20	
Toluene	4.65	0.50	"	5.00		93.0	80-121	7.06	20	
trans-1,3-Dichloropropene	4.55	1.0	"	5.00		90.9	73-127	18.0	20	
1,1,2-Trichloroethane	5.29	1.0	"	5.00		106	80-119	15.0	20	
1,2-Dibromoethane (EDB)	5.43	1.0	"	5.00		109	77-121	16.4	20	
1,3-Dichloropropene	4.90	1.0	"	5.00		98.0	80-119	11.0	20	
Tetrachloroethene	4.88	1.0	"	5.00		97.6	74-129	5.24	20	
Dibromochloromethane	5.08	1.0	"	5.00		102	74-126	8.91	20	
Chlorobenzene	5.18	1.0	"	5.00		104	82-118	0.629	20	
Ethylbenzene	5.11	0.50	"	5.00		102	79-121	4.39	20	

Rincon Consultants - Los Angeles
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Project: RC080117-10
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Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Volatile Organic Compounds by EPA Method 5030/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70218 - EPA 5030

LCS Dup (EH70218-BSD1)

Prepared & Analyzed: 01-Aug-17

1,1,1,2-Tetrachloroethane	5.42	1.0	ug/l	5.00		108	78-124	0.806	20	
m,p-Xylene	9.78	1.0	"	10.0		97.8	80-121	3.55	20	
o-Xylene	4.85	0.50	"	5.00		97.1	78-122	0.890	20	
Styrene	4.76	1.0	"	5.00		95.3	78-123	1.12	20	
Bromoform	4.75	1.0	"	5.00		95.1	66-130	11.4	20	
Isopropylbenzene (Cumene)	5.10	1.0	"	5.00		102	72-131	1.21	20	
1,1,2,2-Tetrachloroethane	5.18	1.0	"	5.00		104	71-121	13.6	20	
1,2,3-Trichloropropane	5.18	1.0	"	5.00		104	73-122	14.9	20	
n-Propylbenzene	5.12	1.0	"	5.00		102	76-123	3.30	20	
Bromobenzene	4.96	1.0	"	5.00		99.1	80-120	5.03	20	
1,3,5-Trimethylbenzene	5.02	1.0	"	5.00		100	75-124	0.269	20	
2-Chlorotoluene	4.81	1.0	"	5.00		96.3	79-122	10.7	20	
4-Chlorotoluene	5.31	1.0	"	5.00		106	78-122	1.07	20	
tert-Butylbenzene	5.09	1.0	"	5.00		102	78-124	2.46	20	
1,2,4-Trimethylbenzene	5.31	1.0	"	5.00		106	76-124	0.104	20	
sec-Butylbenzene	4.99	1.0	"	5.00		99.8	77-126	1.24	20	
p-Isopropyltoluene	5.23	1.0	"	5.00		105	77-127	0.460	20	
1,3-Dichlorobenzene	4.96	1.0	"	5.00		99.2	80-119	5.04	20	
1,4-Dichlorobenzene	5.08	1.0	"	5.00		102	79-118	6.15	20	
n-Butylbenzene	5.11	1.0	"	5.00		102	75-128	0.973	20	
1,2-Dichlorobenzene	5.05	1.0	"	5.00		101	80-119	7.78	20	
1,2-Dibromo-3-chloropropane	4.70	5.0	"	5.00		94.0	62-128	18.2	20	
1,2,4-Trichlorobenzene	4.81	1.0	"	5.00		96.2	69-130	12.9	20	
Hexachlorobutadiene	5.16	1.0	"	5.00		103	66-134	1.37	20	
Naphthalene	4.74	1.0	"	5.00		94.9	61-128	17.9	20	
1,2,3-Trichlorobenzene	4.88	1.0	"	5.00		97.6	69-129	13.0	20	
Surrogate: Dibromofluoromethane	2.69		"	2.50		107	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.70		"	2.50		108	62-139			
Surrogate: Toluene-d8	2.52		"	2.50		101	75-125			
Surrogate: 4-Bromofluorobenzene	2.46		"	2.50		98.5	75-125			

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080117-10
Project Number: 16-03146 / 1795 Long Beach Blvd
Project Manager: Mr. Matt Pendleton

Reported:
08-Aug-17 13:49

Notes and Definitions

QL-1H	The LCS and/or LCSD recoveries fell above the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased high.
LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmpg.com/about/certifications.

SOIL / WATER Chain of Custody

DATE: 7/31/17
Page 1 of 1

Lab Client and Project Information			
Lab Client/Consultant: <u>Rincon Consultants</u>		Project Name / #: <u>16-03146</u>	
Lab Client Project Manager: <u>Mat Pendleton</u>		Project Location: <u>1795 Long Beach Blvd.</u>	
Lab Client Address: <u>250 E. 1st St, Suite 301</u>		Report E-Mail(s): <u>mpendleton@rinconconsultants.com</u>	
Lab Client City, State, Zip: <u>Los Angeles, CA, 91335</u>		Efeldman@rinconconsultants.com	
Phone Number: <u>805 644 4455</u>			
Reporting Requirements		Turnaround Time	
<input checked="" type="checkbox"/> Standard Report <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Excel EDD <input type="checkbox"/> Other EDD: _____ <input type="checkbox"/> CA Geotracker Global ID: _____		<input checked="" type="checkbox"/> 5-7 day Std <input type="checkbox"/> 24-Hr Rush <input type="checkbox"/> 3-day Rush <input type="checkbox"/> Mobile Lab <input type="checkbox"/> 48-Hr Rush <input type="checkbox"/> Other: _____	
		Sampler Information	
		Sampler(s): <u>E. Corson / J. Reksc</u>	
		Signature: <u>[Signature]</u>	
		Date: <u>7/31/17</u>	

Sample Receipt (Lab Use Only)	
Date Rec'd: <u>8/1/17</u>	Control #: <u>170009.04</u>
H&P Project # <u>RC0807-10</u>	
Lab Work Order # <u>E708002</u>	
Sample Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Notes Below	
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Temp: <u>5.8°C</u>
Outside Lab:	
Receipt Notes/Tracking #:	
Lab PM Initials: <u>KIM</u>	

Additional Instructions to Laboratory:

☐ Check if Project Analyte List is Attached

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	MATRIX: SOIL or WATER	CONTAINER SIZE & TYPE	# OF CONTAINERS	Preservative	8260B VOCs Standard Full List (Note: Oxygenates not included)	8260B <input type="checkbox"/> Oxygenates <input type="checkbox"/> MTBE only	8260B VOCs Short List <input type="checkbox"/> BTEX <input type="checkbox"/> Naphthalene	8260B VOC Short List, Other* *Indicate in special instructions	LUFT GC/MS TPH Gas only	LUFT TPH <input type="checkbox"/> Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Extended						
RBH-10	NA	07/31/17	1039	Water	1/0A	5	X	X											
RBH-9	↓	↓	1341	↓	↓	5	X	X											
RBH-8	↓	↓	1440	↓	↓	5	X	X											

Approved/Relinquished by: <u>[Signature]</u>	Company: <u>Rincon</u>	Date: <u>7-31-17</u>	Time: <u>1505</u>	Received by: <u>[Signature]</u>	Company: <u>H&P</u>	Date: <u>7/31/17</u>	Time: <u>1505</u>
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

Appendix E

Soil Vapor Laboratory Analytical Report

09 August 2017

Mr. Matt Pendleton
Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

H&P Project: RC080317-11
Client Project: 16-03146 / 1795 Long Beach Blvd.

Dear Mr. Matt Pendleton:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 02-Aug-17 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,



Janis La Roux
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP and the National Environmental Laboratory Accreditation Conference (NELAC). H&P is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.



Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RBH-10-SV	E708017-01	Vapor	02-Aug-17	02-Aug-17
RBH-10-SV-Rep	E708017-02	Vapor	02-Aug-17	02-Aug-17

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

DETECTIONS SUMMARY

Sample ID: **RBH-10-SV**

Laboratory ID: **E708017-01**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Tetrachloroethene	0.30	0.08	ug/l	H&P 8260SV	

Sample ID: **RBH-10-SV-Rep**

Laboratory ID: **E708017-02**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Tetrachloroethene	0.26	0.08	ug/l	H&P 8260SV	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10-SV (E708017-01) Vapor Sampled: 02-Aug-17 Received: 02-Aug-17									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EH70810	07-Aug-17	07-Aug-17	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.04	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.08	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.08	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.08	"	"	"	"	"	"	
Benzene	ND	0.08	"	"	"	"	"	"	
Trichloroethene	ND	0.08	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	0.30	0.08	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.08	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10-SV (E708017-01) Vapor Sampled: 02-Aug-17 Received: 02-Aug-17									
o-Xylene	ND	0.40	ug/l	0.04	EH70810	07-Aug-17	07-Aug-17	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.08	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane
Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 75-125 " " " "
98.6 % 75-125 " " " "
103 % 75-125 " " " "
95.2 % 75-125 " " " "

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10-SV-Rep (E708017-02) Vapor Sampled: 02-Aug-17 Received: 02-Aug-17									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EH70810	07-Aug-17	07-Aug-17	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.04	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.08	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.08	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.08	"	"	"	"	"	"	
Benzene	ND	0.08	"	"	"	"	"	"	
Trichloroethene	ND	0.08	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	0.26	0.08	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.08	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
RBH-10-SV-Rep (E708017-02) Vapor Sampled: 02-Aug-17 Received: 02-Aug-17									
o-Xylene	ND	0.40	ug/l	0.04	EH70810	07-Aug-17	07-Aug-17	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.08	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane
Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

104 % 75-125 " " " "
97.9 % 75-125 " " " "
102 % 75-125 " " " "
103 % 75-125 " " " "

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EH70810 - EPA 5030

Blank (EH70810-BLK1)

Prepared & Analyzed: 07-Aug-17

1,1-Difluoroethane (LCC)	ND	0.40	ug/l
Dichlorodifluoromethane (F12)	ND	0.40	"
Chloromethane	ND	0.40	"
Vinyl chloride	ND	0.04	"
Bromomethane	ND	0.40	"
Chloroethane	ND	0.40	"
Trichlorofluoromethane (F11)	ND	0.40	"
1,1-Dichloroethene	ND	0.40	"
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"
Methylene chloride (Dichloromethane)	ND	0.40	"
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"
trans-1,2-Dichloroethene	ND	0.40	"
1,1-Dichloroethane	ND	0.40	"
2,2-Dichloropropane	ND	0.40	"
cis-1,2-Dichloroethene	ND	0.40	"
Chloroform	ND	0.08	"
Bromochloromethane	ND	0.40	"
1,1,1-Trichloroethane	ND	0.40	"
1,1-Dichloropropene	ND	0.40	"
Carbon tetrachloride	ND	0.08	"
1,2-Dichloroethane (EDC)	ND	0.08	"
Benzene	ND	0.08	"
Trichloroethene	ND	0.08	"
1,2-Dichloropropane	ND	0.40	"
Bromodichloromethane	ND	0.40	"
Dibromomethane	ND	0.40	"
cis-1,3-Dichloropropene	ND	0.40	"
Toluene	ND	0.80	"
trans-1,3-Dichloropropene	ND	0.40	"
1,1,2-Trichloroethane	ND	0.40	"
1,2-Dibromoethane (EDB)	ND	0.40	"
1,3-Dichloropropane	ND	0.40	"
Tetrachloroethene	ND	0.08	"
Dibromochloromethane	ND	0.40	"

Rincon Consultants - Los Angeles
250 E. 1st St., Suite 301
Los Angeles, CA 91335

Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70810 - EPA 5030

Blank (EH70810-BLK1)

Prepared & Analyzed: 07-Aug-17

Chlorobenzene	ND	0.08	ug/l
Ethylbenzene	ND	0.40	"
1,1,1,2-Tetrachloroethane	ND	0.40	"
m,p-Xylene	ND	0.40	"
o-Xylene	ND	0.40	"
Styrene	ND	0.40	"
Bromoform	ND	0.40	"
Isopropylbenzene (Cumene)	ND	0.40	"
1,1,2,2-Tetrachloroethane	ND	0.40	"
1,2,3-Trichloropropane	ND	0.40	"
n-Propylbenzene	ND	0.40	"
Bromobenzene	ND	0.40	"
1,3,5-Trimethylbenzene	ND	0.40	"
2-Chlorotoluene	ND	0.40	"
4-Chlorotoluene	ND	0.40	"
tert-Butylbenzene	ND	0.40	"
1,2,4-Trimethylbenzene	ND	0.40	"
sec-Butylbenzene	ND	0.40	"
p-Isopropyltoluene	ND	0.40	"
1,3-Dichlorobenzene	ND	0.40	"
1,4-Dichlorobenzene	ND	0.40	"
n-Butylbenzene	ND	0.40	"
1,2-Dichlorobenzene	ND	0.40	"
1,2-Dibromo-3-chloropropane	ND	4.0	"
1,2,4-Trichlorobenzene	ND	0.40	"
Hexachlorobutadiene	ND	0.40	"
Naphthalene	ND	0.08	"
1,2,3-Trichlorobenzene	ND	0.40	"

Surrogate: Dibromofluoromethane	2.10	"	2.00	105	75-125
Surrogate: 1,2-Dichloroethane-d4	2.02	"	2.00	101	75-125
Surrogate: Toluene-d8	2.05	"	2.00	103	75-125
Surrogate: 4-Bromofluorobenzene	1.99	"	2.00	99.5	75-125

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Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH70810 - EPA 5030

LCS (EH70810-BS1)

Prepared & Analyzed: 07-Aug-17

Dichlorodifluoromethane (F12)	3.2	0.40	ug/l	4.00		80.8	70-130			
Vinyl chloride	3.6	0.04	"	4.00		89.5	70-130			
Chloroethane	4.0	0.40	"	4.00		99.2	70-130			
Trichlorofluoromethane (F11)	3.7	0.40	"	4.00		92.6	70-130			
1,1-Dichloroethene	3.3	0.40	"	4.00		82.8	70-130			
1,1,2 Trichlorotrifluoroethane (F113)	4.1	0.40	"	4.00		103	70-130			
Methylene chloride (Dichloromethane)	3.9	0.40	"	4.00		96.7	70-130			
trans-1,2-Dichloroethene	4.0	0.40	"	4.00		99.6	70-130			
1,1-Dichloroethane	3.5	0.40	"	4.00		88.0	70-130			
cis-1,2-Dichloroethene	4.2	0.40	"	4.00		104	70-130			
Chloroform	3.8	0.08	"	4.00		95.1	70-130			
1,1,1-Trichloroethane	3.8	0.40	"	4.00		95.7	70-130			
Carbon tetrachloride	4.0	0.08	"	4.00		99.7	70-130			
1,2-Dichloroethane (EDC)	3.7	0.08	"	4.00		92.4	70-130			
Benzene	3.9	0.08	"	4.00		98.4	70-130			
Trichloroethene	4.0	0.08	"	4.00		99.6	70-130			
Toluene	4.0	0.80	"	4.00		100	70-130			
1,1,2-Trichloroethane	4.0	0.40	"	4.00		99.1	70-130			
Tetrachloroethene	4.2	0.08	"	4.00		104	70-130			
Ethylbenzene	4.3	0.40	"	4.00		107	70-130			
1,1,1,2-Tetrachloroethane	4.2	0.40	"	4.00		105	70-130			
m,p-Xylene	8.6	0.40	"	8.00		107	70-130			
o-Xylene	4.2	0.40	"	4.00		106	70-130			
1,1,2,2-Tetrachloroethane	3.7	0.40	"	4.00		91.7	70-130			

Surrogate: Dibromofluoromethane	1.99		"	2.00		99.3	75-125			
Surrogate: 1,2-Dichloroethane-d4	1.84		"	2.00		92.2	75-125			
Surrogate: Toluene-d8	2.11		"	2.00		105	75-125			
Surrogate: 4-Bromofluorobenzene	2.04		"	2.00		102	75-125			

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Project: RC080317-11
Project Number: 16-03146 / 1795 Long Beach Blvd.
Project Manager: Mr. Matt Pendleton

Reported:
09-Aug-17 08:41

Notes and Definitions

LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.

Lab Client and Project Information			
Lab Client/Consultant: Rincon Consultants		Project Name / #: 16-03176	
Lab Client Project Manager: Matt Pendleton		Project Location: 1795 Long Beach Blvd.	
Lab Client Address: 250 E 1st St.		Report E-Mail(s):	
Lab Client City, State, Zip: Los Angeles CA 90012		mpendleton@rinconconsultants.com	
Phone Number: 805 644 4455		efeldman@rinconconsultants.com	
Reporting Requirements		Turnaround Time	
<input checked="" type="checkbox"/> Standard Report <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Excel EDD <input type="checkbox"/> Other EDD: _____ <input type="checkbox"/> CA Geotracker Global ID: _____		<input checked="" type="checkbox"/> 5-7 day Std <input type="checkbox"/> 24-Hr Rush <input type="checkbox"/> 3-day Rush <input type="checkbox"/> Mobile Lab <input type="checkbox"/> 48-Hr Rush <input type="checkbox"/> Other: _____	
		Sampler Information	
		Sampler(s): S. Mayfield	
		Signature: _____	
		Date: 8.2.17	

Sample Receipt (Lab Use Only)		
Date Rec'd:	8/3/17	Control #: 170609.08
H&P Project # RC080317-11		
Lab Work Order # E708017		
Sample Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Notes Below		
Receipt Gauge ID:	11167	Temp: RT
Outside Lab:		
Receipt Notes/Tracking #:		
Lab PM Initials: KIM		

[illegible]

Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: RC080217-Tech Date: 8.2.17
Site Address: 1795 Long Beach Blvd, Long Beach Page: 1 of 1
Consultant: Rincon Cons. H&P Rep(s): S. Mayfield
Consultant Rep(s): Matt P.

Reviewed: KPS
Scanned: T Torres

Equipment Info
Inline Gauge ID#: —
Pump ID#: 013

Purge Volume Information
PV Amount: 3PV
PV Includes: ☐ Tubing
☐ Sand 40%
☐ Dry Bent 50%

Leak Check Compound ☒ 1,1-DFA
☐ 1,1,1,2-TFA
☐ IPA
☐ Other:
A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Sample and Summa Information							Probe Specs							Purge & Collection Information						
Point ID	Summa ID #	Sample Kit ID #	Start Time	Initial Vac (" Hg)	End / Sample Time	End Vac (" Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	ProbeVac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H ₂ O
1 RBH-10-SV	200	156	1126	-28.5"	1130	Ø	5'	6'	1/8"	12"	3.5"	12"	3.5"	✓	✓	5125	500	10:15"	4200	10"
2 RBH-10-SV-Rep	323	156	1130	-28.5"	1134	Ø	5'	6'	1/8"	12"	3.5"	12"	3.5"	✓	✓	5525	500	—	4200	10"
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):

per client, pulled & patched.