



Carryl MacLeod

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Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station 90955
1200 Park Street
Alameda, CA
ACEH Site Cleanup Case #RO003230

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached *Well Installation and Site Assessment Report* submitted on my behalf to SWRCB's GeoTracker website.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge

Sincerely,

A handwritten signature in blue ink that reads "Carryl MacLeod".

Carryl MacLeod
Project Manager

Attachment: *Well Installation and Site Assessment Report*

Chevron Environmental Management Company

WELL INSTALATION REPORT

Former Chevron Service Station No. 90955

1200 Park Street

Alameda, California

ACDEH Case RO0003230

May 31, 2018



WELL INSTALLATION REPORT

Former Chevron Service Station 206145
1200 Park Street
Alameda, California
ACDEH Case RO0003230



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B0090955.GW18

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May 31, 2018

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ACRONYMS AND ABBREVIATIONS

ACDEH	Alameda County Department of Environmental Health
BETX	Benzene, toluene, ethylbenzene, xylenes
ESL	Environmental screening levels
SWRCB	State Water Resources Control Board
LTC	Low Threat Closure
OSHA	Occupational Health and Safety Administration
HASP	Health and Safety Plan
USA	Underground Service Alert
EPA	Environmental Protection Agency
TPH-d	Diesel range total petroleum hydrocarbons
TPH-g	Gasoline range total petroleum hydrocarbons
TPH-m	Motor oil range total petroleum hydrocarbons
PAH	Poly-aromatic hydrocarbons
BTEX	benzene, toluene, ethylbenzene, xylene
SFRWQ ESL	San Francisco Bay Area Regional Water Quality Control Board Environmental Screening Levels

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this *Well Installation and Site Assessment Report* for the former Chevron service station No. 90955 located at 1200 Park Street, Alameda, California (the 'Site'; Figure 1). The purpose of the investigation was to address data gaps identified by the Alameda County Department of Environmental Health (ACDEH) December 2016 (ACDEH 2016a) Directive Letter for further site investigation to fill data gaps identified to close the Site under the State Water Resources Control Board (SWRCB) Low Threat Closure (LTC) Policy. The assessment activities for this work were proposed to ACDEH in the *Work Plan for Additional Site Assessment (Work Plan)* dated February 3, 2017 (GHD 2017a) and *Work Plan Addendum (Addendum)* dated May 10, 2017 (GHD 2017b). ACDEH approved the *Work Plan* and *Addendum*, provided that the proposed technical comments in Directive Letter dated July 7, 2017 were incorporated during proposed work (ACDEH 2017a).

1.1 Site Background

The Site is a former Chevron retail gas station (#90955) located at 1200 Park Street; on the corner of Park Street and San Jose Avenue in Alameda, California. The site was leased by Standard Oil Company of California from 1933-1978. In 1952, Standard removed three 550-gallon underground service tanks (USTs) and installed three 5000-gallon USTs at the site. In 1967, the 550-gallon used-oil UST was relocated.

In 1978, Chevron USA terminated the leasing agreement with the property owner and removed the 5,000-gallon USTs. In 1988 the 490-gallon used-oil UST was removed. The site was in continuous use as an Auto Service Garage from 1978 to 2017. The site is currently unoccupied. The adjacent property (2407 San Jose Ave) has been operated as an Auto Service Garage since 1983.

1.2 Scope of Work

On March 20 and 21, 2018, Arcadis personnel supervised Cascade Drilling, L.P. (Cascade) of West Sacramento, California, to advance soil borings (HA-1 and HA-2) and the installation of four monitoring wells: MW-1, MW-2, MW-3 and MW-4. Soil samples were collected at predetermined depths as specified in the *Addendum* (GHD 2017b). The wells were developed by Gettler-Ryan on March 23, 2018 and sampled for the first quarter 2018 groundwater monitoring event on April 2, 2018.

Monitoring well and borehole locations are presented on Figure 2; well construction details are summarized in Table 1 and 2, and boring logs are in Appendix A.

2 MONITORING WELL INSTALLATION

2.1 Pre-field Activities

Tasks described below were completed prior to commencing field activities associated with the above referenced scope of work.

2.1.1 Site Specific Health and safety Plan

As required by the Occupational Health and Safety Administration (OSHA) Standard “Hazardous Waste Operations and Emergency Response” guidelines (29 Code of Federal Regulations Section 1910.120), and by California Occupational Health and Safety Administration (Cal-OSHA) “Hazardous Waste Operations and Emergency Response” guidelines (California Code of Regulations Title 8, Section 5192), Arcadis prepared a health and safety plan (HASP) prior to commencing fieldwork. Field staff and contractors reviewed the HASP before beginning field operations at the site.

2.1.2 Permitting

Boring and monitoring well installation permits were obtained from the Alameda County Public Works Agency, Water Resources Division. All well installation activities were performed in compliance with the original work plan and permit.

2.2 Field Activities

Tasks below were completed according to the scope of work. Field logs and permits are in Appendix B.

2.2.1 Underground Utility Locating

On March 8, 2018 the private utility locator Ground Penetrating Radar Systems marked all known and suspected underground utilities. In addition, Underground Service Alert (USA) was notified at least 72 hours before commencing invasive operations (hand augering and drilling). None of the borehole locations were found to be within a 10-foot radius of any utilities.

2.2.2 Well Installation Activities

Tasks described below outline field procedures for installation of monitoring wells MW-1, MW-2, MW-3, and MW-4.

Borehole Clearance

The asphalt and cement surfaces were cored with a 10-inch diameter “cookie cutter” bit. In accordance with CEMC requirements, boring locations were cleared to 8 feet bgs via hand-auger. No utilities were encountered within these vertical 8 feet.

Drilling

Drilling and installation activities were conducted by Cascade Drilling, LP of Richmond, California, a C-57 licensed driller, under the supervisor of an Arcadis Professional Geologist. Soil borings were advanced using hollow-stem auger drilling methods for MW-1 through MW-4. Boring locations HA-1 and HA-2 were advanced using a hand auger.

The soil from the boreholes were continuously logged by a geologist in accordance with the Unified Soil Classification System and screened with a photo ionization detector (PID) during well installation activities. The PID field screening results were recorded on the field boring logs in units of parts per million. The field determination for soil sampling was based on the predetermined intervals and additional

samples were collected in the areas of the highest PID readings greater than the background concentration.

The monitoring wells were completed with a 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) riser and a 0.020-inch slot screen, which was set from 5 to 15 feet bgs. The annular space was backfilled with sand from the total depth to 1 foot above the screen, followed by 1 foot of hydrated bentonite chips. The wells were sealed with neat cement grout to the surface. A 12-inch-diameter traffic-rated well box was installed at grade.

Well Development & Completion

In accordance with the work plan, all monitoring wells were developed by Gettler-Ryan Inc. on March 23, 2018. The wells were surged with a bailer and approximately 10 casing volumes of water were purged. A stack pump was used to purge water. Parameters for pH, conductivity, and temperature were collected until stabilization.

Groundwater samples were collected by Gettler-Ryan in a separate sampling event on April 2, 2018. The Groundwater Sampling Report was submitted under separate cover on May 15, 2018.

Well completion reports were submitted to California Department of Water Resources on May 17, 2018 and included in Appendix C

Well Surveying

On April 4, 2018, Muir surveying of Oakdale, California surveyed geographical coordinates and the top of casing elevation for all site monitoring. Survey data is included in Appendix B.

2.2.3 Borehole Activities

Boreholes HA-1 and HA-2 were advanced at the location of the former UST pit. Boreholes were advanced via hand auger to 10 ft bgs under the supervisor of an Arcadis Professional Geologist. Soil was characterized continuously, and soil samples were collected at 3 ft and 8 ft bgs. Once sampling was complete, boreholes were completed to ground surface with grout. Boring logs are included in Appendix A.

2.2.4 Waste generation and removal

Investigation-derived waste soil cuttings and decontamination water generated during drilling operations was containerized in Department of Transportation (DOT)-approved 55-gallon drums and temporarily stored on site pending characterization. CEMC is managing the waste profile and is arranging for a certified waste contractor to transport and dispose of the waste.

2.3 Soil Sampling and Analytical Results

Soil sample intervals were pre-determined based on the previous investigation and site history. Proposed sample intervals for the monitoring wells (MW-1 through MW-4) included 3, 5, 10 and 15 feet bgs. Proposed sample intervals for the hand auger locations (HA-1 and HA-2) included 3 and 8 feet bgs. The proposed locations were collected. Additional samples were collected from MW-1 where soil exhibited significant indications of petroleum hydrocarbon impacts based on PID readings.

Samples were analyzed by Eurofins Lancaster Laboratories with a standard turnaround time of 10 days:

- Total petroleum hydrocarbons as motor oil range organics (TPH-m) by EPA Method 8015.
- Total petroleum hydrocarbons as diesel range organics (TPH-d) with and without silica cleanup by EPA Method 8015.
- Total Petroleum hydrocarbons as gasoline range organics (TPH-g) by EPA Method 8015.
- Benzene, toluene, ethylbenzene, total xylenes (BTEX) and naphthalene by EPA Method 8260B.

TerraCore© kits were used to collect soil samples for the EPA Method 8260B analyses.

In addition, soil samples collected from HA soil borings were only analyzed for polycyclic aromatic hydrocarbons

- Poly-aromatic hydrocarbons (PAH) by EPA Method 8270.

2.3.1 Soil Lithology

Generally, the soils encountered in the borings are consistent with previous investigations at the site. Soils consisted of fine-to-medium grained sand. Gravel, likely non-native fill, was noted between 1 to 3 feet thick from the surface to 3 feet bgs. First encountered water was observed at the monitoring well (MW-1 through MW-4) at approximately 8.5 feet bgs. First encountered water was observed at the hand auger locations (HA-1 and HA-2) at 9.5 feet bgs.

2.3.2 Soil Sample Results

As requested in the December 2016 Directive Letter soil concentrations of the primary constituents of potential concern (COPC) were compared to residential, commercial and utility worker soil screening levels presented in Table 1 - *Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health* of the SWRCB LTC Policy (SWRCB 2012). COPCs detected in soil samples were also compared to San Francisco Bay Area Regional Water Quality Control Board Environmental Screening Levels (ESL) for commercial industrial direct exposure for human health.

Analytical results for benzene, ethylbenzene, and naphthalene were below the LTC Policy Criteria and the ESLs. Results are presented in Tables 2 and 3 and Figure 3; laboratory analytical reports are located in Appendix D, and the Data Validation Report is included in Appendix E.

MW-1: Samples were collected at 1 ft bgs, 5 ft bgs, 10 ft bgs, and 15 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

MW-2: Samples were collected at 3 ft bgs, 5 ft bgs, 8 ft bgs, 10 ft bgs, 12 ft bgs, and 15 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

MW-3: Samples were collected at 3 ft bgs, 5 ft bgs, 10 ft bgs, and 15 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

MW-4: Samples were collected at 3 ft bgs, 5 ft bgs, 10 ft bgs, and 15 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

HA-1: Samples were collected at 3 ft bgs, and 8 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

HA-2: Samples were collected at 3 ft bgs, and 8 ft bgs. Sample results did not exceed SWRCB LTC Policy Criteria or the ESLs.

All monitoring well soil samples were analyzed for TPH-g, TPH-d, TPH-m, BTEX, and Naphthalene.

For the data set, TPH-d and TPH-m analyses had to be reanalyzed outside of holding times. This means that those diesel and motor oil results, and only those results, are qualified as approximate.

The main COPC at the Site is gasoline; there is no record of diesel ever having been dispensed. In addition to internal data validation of the soil and groundwater (as presented in the First Quarter 2018 Groundwater Monitoring and Sampling Report [Arcadis 2018]), EPA 8015 method chromatograms for groundwater samples were reviewed by Arcadis' national chemical forensics expert. The chromatograms indicate a pattern consistent with weathered gasoline. Therefore, the qualified TPH-d and TPH-m results are of minimal importance. All TPH-g, BTEX and Naphthalene (primary risk drivers) results to date have been validated as accurate and fully representative.

3 ASSESSMENT OF SITE CONDITIONS RELATIVE TO LOW-THREAT CLOSURE POLICY

The Low-Threat Closure Policy (SWRCB 2012a) outlines eight General Criteria to assess whether sites are candidates for low-threat case closure and three categories of Media-Specific Criteria (groundwater, petroleum vapor intrusion to indoor air, and direct contact and outdoor air exposure) that also must be met. This section evaluates current site conditions against the General and Media-Specific Criteria. Based on this evaluation, Arcadis concludes that the site meets the General and Media-Specific Criteria requirements for low-threat case closure.

3.1 Evaluation of Low-Threat Closure General Criteria

This section evaluates the site conditions related to each of the eight General Criteria.

3.1.1 Criteria A – The unauthorized release is located within the service area of a public water system

The site lies within the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The site is located within the service area of the City of Alameda public water system. Water used within the City of Oakland public water system, which includes drinking water at the site, is imported water supplied by the EBMUD. Approximately 90 percent of the EBMUD's water supply comes from the Mokelumne River watershed in the Sierra Nevada Mountains (EBMUD 2013). A well search on GeoTracker GAMA (Groundwater Ambient Monitoring and Assessment Program) for active and inactive wells did not identify any water supply wells located within a 1000 foot radius of the site. The closest water supply well is located approximately 1450 feet from the site.

3.1.2 Criteria B – The unauthorized release consists only of petroleum

In April 2016, a Phase II investigation was completed at the site (Moore Twining [MTA]2016). A total of 12 boreholes (B-1 through B-12) were advanced in suspected area of former USTs. Soil samples were collected between 10 and 11.5 feet bgs, and grab groundwater samples were collected from boreholes B-1, B-5, B-6, B-10, and B-12. Soil sample results indicated petroleum hydrocarbon impacts at locations B-6, B-10, and B-12. Soil and groundwater impacts were detected in the former UST, dispenser island, and product piping locations (MTA 2016). Historical data is included in Appendix F. The COPCs identified were TPH-g, TPH-m, BTEX, and naphthalene, which are indicative of a petroleum release. Based on tank records diesel was not dispensed at the site and is not considered a COPC. There have been no non-petroleum impacts or releases documented at the site.

3.1.3 Criteria C – The unauthorized (“primary”) release from the UST system has been stopped

As noted in the previous reports, in 1952, three 550-gallon USTs were removed from the site and replaced by three 5,000-gallon USTs. As noted in the Site Background section, in 1967, the 550-gallon used-oil UST was relocated. Also, in 1978 the lease was terminated and the three 5,000-gallon USTs. In 1988 the 490-gallon used-oil UST was removed. No other USTs remain on site. The unauthorized releases ceased with the removal of USTs.

3.1.4 Criteria D – Free product has been removed to the maximum extent practicable

Free product was not observed during the April 2016 investigation, the 2018 monitoring well installation or the 2018 first quarterly groundwater sampling event. Over the next four quarters, any free product will be measured and documented during sampling events. Based on observations to date, none is anticipated.

3.1.5 Criteria E – A conceptual site model that assesses the nature, extent, and mobility of the release has been developed

Between this Report and the Phase-II investigation, all information and data necessary for a site conceptual model have been collected.

3.1.6 Criteria F – Secondary source has been removed to the extent practicable

The site is exempt from this criterion, as no secondary source was identified during the Phase 1, Phase II, or the current investigation. Historical remedial efforts included UST removal and soil removal. Soil concentrations reported during the March 2018 (and 2016) investigation were all below method detection limits (MDLs) or environmental screening levels (ESLs), and measurable LNAPL or sheen have not been observed in groundwater or soil which indicate that secondary source has been removed to the extent practicable. Additional secondary source removal is not warranted.

3.1.7 Criteria G – Soil and groundwater have been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15

During the 2016 Phase-II Investigation, soil samples collected from B-6 through B-12 and all groundwater samples were analyzed for MTBE using USEPA Method 8260B. All results were below laboratory detection limits (MTA 2016).

Due to the service station history (Terraphase 2017) and the results of the Phase-II investigation (MTA 2016), MTBE is not considered a constituent of potential concern for the site.

3.1.8 Criteria H – Nuisance as defined by Water Code Section 13050 does not exist at the site

No nuisance exists at the site, as defined by Water Code Section 13050. Site conditions and the treatment and disposal of site wastes are not injurious to health, are not indecent or offensive to the senses, and do not obstruct free use of property or interfere with the comfortable enjoyment of life or property. Site conditions and the treatment and disposal of site wastes do not affect an entire community or neighborhood or any considerable number of persons. Site impacts are restricted to the subsurface and are present in a limited area that does not adversely affect the community at large.

3.2 Evaluation of Low-Threat Closure: Media-Specific Criteria

This section evaluates the site conditions related to each of the three categories of Media-Specific Criteria.

3.2.1 Groundwater

Groundwater at the site does not currently pose a risk to existing or anticipated future beneficial uses of groundwater and meets the groundwater-specific criteria outlined in the Low-Threat Closure Policy (SWRCB 2012a). The Low-Threat Closure Policy (SWRCB 2012a) states that “the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent and meet all of the additional characteristics of one of the five classes of sites.”

3.2.1.1 Plume Stability

According to the Technical Justification for Groundwater Media Specific Criteria (SWRCB 2012b), plume stability can be demonstrated in two ways:

- “[R]outinely observed non-detect values for groundwater parameters in down-gradient wells”
- “[S]table or decreasing concentration levels in down-gradient wells.”

The furthest down-gradient well is MW-1. Groundwater collected from MW-1 in the first routine monitoring contained only a small amount of TPH-g and TPH-m. MW-1 was non-detect for BTEX and naphthalene. These results and stability of parameters in all four wells will be assessed during the next four quarters.

3.2.1.2 Additional Groundwater-Specific Criteria

As described in the Low-Threat Closure Policy (SWRCB 2012a), a site can meet the Groundwater - Specific Criteria through one of five main classes. This site falls into **Class 1** as described below.

1a. The contaminant plume that exceeds water quality objectives is less than 100 feet in length

To determine the classification of groundwater impacts, the length of the plume exceeding WQOs for each of the current site COPCs was measured using the most recent data included on Figure 4. Plume lengths were measured from the furthest upgradient monitoring well (MW-4) to the furthest down gradient monitoring well (MW-1):

- There are approximately 68 feet between MW-1 and MW-4.
- TPH-d was detected at MW-4, which is not a COPC since diesel was never dispensed at the site, exceeds the ESL at 300 mg/kg but as noted above the chromatograms indicate a pattern consistent with weathered gasoline.
- No other analytes exceeded the ESL at MW-4.
- No ESL exceedances were detected at MW-1

1b. There is no free product

As discussed in section 3.1.4. no free product has been observed onsite.

1c. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary

GeoTracker GAMA search results indicated no water supply wells or surface water bodies within 250 feet of the plume boundary.

3.2.2 Petroleum Vapor Intrusion to Indoor Air

BTEX are not detected at MW-1, the well furthest down-gradient from the former USTs and nearest the current building (Figure 4). Depth to water ranges from 7.63 to 8.87 feet bgs. There is the presence of a bioattenuation zone and therefore, this criterion is met, and the site is exempt.

3.2.3 Direct Contact and Outdoor Air Exposure

As described in the Low-Threat Closure Policy (SWRCB 2012a), sites will meet the Media-Specific Criteria for direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air if any of the following apply:

- The maximum concentrations of COPCs in soil are less than or equal to those listed in Table 1 of the Low-Threat Closure Policy (SWRCB 2012a).
- A site-specific risk assessment shows that COPCs present in soil will not adversely affect human health.
- Exposure to COPCs is mitigated through engineering controls.

This site meets the first criteria as summarized below:

- The site is completely covered with a building and pavement and there is little or no potential for direct human contact with site soil or for offsite wind dispersion of soil. Therefore, direct contact exposure pathways (i.e., ingestion, dermal contact, and inhalation of particulates) with soil are considered incomplete and are expected to remain the same in the future.

Data is included in Table 2. Benzene and ethylbenzene concentrations were evaluated using concentrations for using the LTC Policy commercial/industrial exposure because the site is not anticipated to be developed for residential use (Table 1 of SWRCB 2012a). Polycyclic aromatic hydrocarbons are not considered COPCs at the site.

Chemical	Commercial/Industrial				Utility Worker	
	0 to 5 feet bgs mg/kg		Volatilization to outdoor air (5 to 10 feet bgs) mg/kg		0 to 10 feet bgs mg/kg	
	Low-Threat Closure Policy Table 1	Site Maximum	Low-Threat Closure Policy Table 1	Site Maximum	Low-Threat Closure Policy Table 1	Site Maximum
Benzene	8.2	0.0004 (MW-3)	12	0.004 (MW-2)	14	0.004 (MW-2)
Ethylbenzene	89	ND	134	0.002 (MW-2)	314	0.002 (MW-2)

As shown in the table above, the maximum concentrations of benzene and ethylbenzene are below the No Significant Risk Values (Table 1 of SWRCB 2012a) for commercial/industrial direct contact and volatilization to outdoor air and utility worker direct contact in soil samples collected from 0 to 10 feet bgs.

4 CONCLUSIONS

Monitoring wells MW-1 through MW-4 were successfully installed and developed in accordance with the Alameda County Public Works permit requirements. Arcadis will continue to monitor groundwater on a quarterly basis for four quarters.

Borehole locations HA-1 and HA-2 were successfully completed and abandoned in accordance with permit requirements.

Soil sampling and analysis were completed in accordance with the ACDEH approved Work Plan and Addendum. Soil sample analytical results are discussed in the context of the SWRCB LTC Policy criteria. Results indicate the site meets the LTCP Media-Specific Criteria for Direct Contact and Outdoor Air Exposure.

LTCP Criteria is not currently met for the Media Specific Criteria for groundwater plume stability. Additional quarterly sampling is planned and the Media Specific Criteria will be evaluated.

5 REFERENCES

SWRCB 2012a. Low-Threat Underground Storage Tank Case Closure Policy, August 17, 2012

SWRCB 2012b. Technical Justification for groundwater Media-Specific Criteria, April 24, 2012

Terraphase 2017. Summary of findings for Property History and Chemical Use Information Research for 1200 park Street, 1210 Park Street, 1222 park Street, and 24,07 San Jose Avenue, Alameda, CA, January 20, 2017.

Moore Twining Associates (MTA) 2016. Limited Phase II Environmental Site Assessment Report, 1200 Park Street, Alameda, California, May 11, 2016.

TABLES



Table 1
Monitoring Well Construction Details
Former Chevron Service Station 90955
1200 Park St., Alameda, California
Chevron Environmental Management

Monitoring Well ID	Installation Date	Total Depth (ft)	Screen Interval (ft)	Water Level (bgs)
MW-1	3/20/2018	15	5-15	9.06
MW-2	3/20/2018	15	5-15	8.37
MW-3	3/20/2018	15	5-15	8.69
MW-4	3/21/2018	15	5-15	-
HA-1	3/21/2018	10	-	-
HA-2	3/21/2018	10	-	-

Notes:

ft = Feet

bgs=below ground surface

Table 2
Monitoring Well Soil Analytical Results
Former Chevron Service Station 90955
1200 Park St., Alameda, California
Chevron Environmental Management



Sample ID	Sample Date	Sample Depth (ft)	TPH-d 8015 (SGT) mg/kg	TPH-d mg/kg	TPH-g mg/kg	TPH-m mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl-benzene mg/kg	Total Xylenes mg/kg	Naphthalene mg/kg
LTCP commercial Industrial no bioattenuation zone			--	--	--	--	8.2	--	89	--	45
ESLs (Commercial/Industrial)			1,100	1,100	3,900	140,000	1	4,600	22	2,400	14
MW-1-S-3-180320	3/20/2018	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1-S-5-180320	3/20/2018	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1-S-10-180320	3/20/2018	10	ND	5.7	ND	ND	ND	ND	ND	ND	ND
MW-1-S-15-180320	3/20/2018	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2-S-3-180320	3/20/2018	3	ND	ND	ND	ND	0.0004	ND	ND	ND	ND
MW-2-S-5-180320	3/20/2018	5	ND	ND	ND	15	ND	0.0008	ND	ND	ND
MW-2-S-8-180320	3/20/2018	8	39	45	98	200	0.004	0.003	0.002	0.003	0.052
MW-2-S-10-180320	3/20/2018	10	52	56	87	40	ND	ND	ND	ND	0.33
MW-2-S-12-180320	3/20/2018	12	130	140	510	140	ND	ND	ND	ND	2
MW-2-S-15-180320	3/20/2018	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3-S-3-180320	3/20/2018	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3-S-5-180320	3/20/2018	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3-S-10-180320	3/20/2018	10	ND	ND	ND	ND	0.002	0.0009	0.001	ND	0.015
MW-3-S-15-180320	3/20/2018	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-S-3-180320	3/20/2018	3	ND	4.6	ND	ND	ND	ND	ND	ND	ND
MW-4-S-5-180320	3/20/2018	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-S-10-180321	3/21/2018	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-S-15-180321	3/21/2018	15	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

- ft = Feet
- mg/kg = Micrograms per kilogram
- Bold = Value exceeds laboratory reporting limits**
- ND = Not detected at or above the stated Practical Quantitation Limit**
- TPH-d = Total petroleum hydrocarbons, diesel range
- TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to Environmental Protection Agency (EPA) Method 8015B
- TPH-m = Total petroleum hydrocarbons, motor oil range
- TPH-d = Total petroleum hydrocarbons, diesel range by GC-5 according to EPA Method 8015B
- SGT = Silica Gel Treated
- Samples analyzed by EPA Method 8260B:
- Benzene, toluene, ethylbenzene and total xylenes (collectively BTEX)
- ESL = Environmental Screening Level

Table 3
Hand Auger Soil Analytical Results
Former Chevron Service Station 90955
1200 Park St., Alameda, California
Chevron Environmental Management

Sample ID	Sample Date	Sample Depth (ft)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HA-1-S-3-180321	3/21/2018	3	<0.004	<0.004	<0.004	0.004	0.005	0.006	0.007	0.005	0.007
HA-1-S-8-180321	3/21/2018	8	<0.004	<0.004	<0.004	<0.004	<0.004	0.004	0.004	0.004	0.004
HA-2-S-3-180321	3/21/2018	3	<0.004	<0.004	<0.004	0.005	0.007	0.011	0.009	0.006	0.011
HA-2-S-8-180321	3/21/2018	8	<0.004	<0.004	<0.004	0.004	0.005	0.006	0.007	0.005	0.011

Table 3
Hand Auger Soil Analytical Results
Former Chevron Service Station 90955
1200 Park St., Alameda, California
Chevron Environmental Management

Sample ID	Sample Date	Sample Depth (ft)	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH Equivalent Calculation	LTCP Commercial Industrial
HA-1-S-3-180321	3/21/2018	3	0.004	0.005	<0.004	0.005	<0.004	<0.004	0.006	0.010638	0.68
HA-1-S-8-180321	3/21/2018	8	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.000484	0.68
HA-2-S-3-180321	3/21/2018	3	0.005	0.009	<0.004	0.007	0.005	0.011	0.011	0.014492	0.68
HA-2-S-8-180321	3/21/2018	8	0.004	0.006	<0.004	0.004	0.016	0.007	0.007	0.010551	0.68

Notes:

ft = Feet

mg/kg = Micrograms per kilogram

Bold = Value exceeds laboratory reporting limits

PAH = Polycyclic Aromatic Hydrocarbons

PAH Equivalent Calculation = Based on the seven carcinogenic poly-aromatic hydrocarbons (PAHs) as benzo(a)pyrene toxicity equivalent [BaPe].

LTCP = Low threat Closure Policy

FIGURES





LEGEND	
	PROPERTY BOUNDARY
	MONITORING WELL
	APPROXIMATE SOIL BORING
	APPROXIMATE HAND AUGER BORING

- NOTES:
1. BASE MAP PROVIDED BY GHD. CITED MAP SOURCE: MOORE TWINING ASSOCIATES, INC. SITE PLAN DATED 5/3/16.
 2. MONITORING WELLS SURVEYED BY MUIR CONSULTING, INC. 4/16/18. ALL OTHER FEATURES AND LOCATIONS ARE APPROXIMATE.



FORMER CHEVRON STATION 90955 1200 PARK STREET ALAMEDA, CALIFORNIA	
SITE FEATURES	
	Design & Consultancy for natural and built assets
FIGURE	2

MW-2					
Depth	3'	5'	8'	10'	12'
TPH-d (SGT)	ND	ND	39	52	130
TPH-d	ND	ND	45	56	140
TPH-g	ND	ND	98	87	510
TPH-m	ND	15	200	40	140
Benzene	0.0004	ND	0.004	ND	ND
Toluene	ND	0.0008	0.003	ND	ND
Ethylbenzene	ND	ND	0.002	ND	ND
Total Xylenes	ND	ND	0.003	ND	ND
Naphthalene	ND	ND	0.052	0.33	2

HA-1		
Depth	3'	8'
Benzo(a)anthracene	0.004	ND
Benzo(a)pyrene	0.005	ND
Benzo(b)fluoranthene	0.006	0.004
Benzo(g,h,i)perylene	0.007	0.004
Benzo(k)fluoranthene	0.005	0.004
Chrysene	0.007	0.004
Dibenz(a,h)anthracene	0.004	ND
Fluoranthene	0.005	ND
Indeno(1,2,3-cd)pyrene	0.005	ND
Pyrene	0.006	ND

MW-3	
Depth	10'
Benzene	0.002
Toluene	0.0009
Ethylbenzene	0.001
Naphthalene	0.015

MW-4	
Depth	10'
TPH-d	4.6

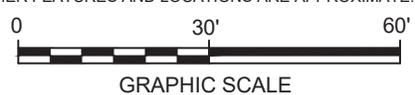
HA-2		
Depth	3'	8'
Benzo(a)anthracene	0.005	0.004
Benzo(a)pyrene	0.007	0.005
Benzo(b)fluoranthene	0.011	0.006
Benzo(g,h,i)perylene	0.009	0.007
Benzo(k)fluoranthene	0.006	0.005
Chrysene	0.011	0.011
Dibenz(a,h)anthracene	0.005	0.004
Fluoranthene	0.009	0.006
Indeno(1,2,3-cd)pyrene	0.007	0.004
Naphthalene	0.005	0.016
Phenanthrene	0.011	0.007
Pyrene	0.011	0.007

LEGEND

- PROPERTY BOUNDARY
- MONITORING WELL
- APPROXIMATE SOIL BORING
- APPROXIMATE HAND AUGER BORING
- TPH-d (SGT) TOTAL PETROLEUM HYDROCARBONS - DIESEL (SILICA GEL TREATMENT)
- TPH-g TOTAL PETROLEUM HYDROCARBONS - GASOLINE
- TPH-m TOTAL PETROLEUM HYDROCARBONS - MOTOR OIL
- ND NON DETECT
- BOLD** VALUE EXCEEDS LABORATORY REPORTING LIMITS

SAMPLE DEPTHS ARE IN FEET BELOW GROUND SURFACE
 RESULTS ARE IN MILLIGRAMS PER KILOGRAM
 ONLY DETECTIONS ARE SHOWN FOR CLARITY

- NOTES:**
- BASE MAP PROVIDED BY GHD. CITED MAP SOURCE: MOORE TWINING ASSOCIATES, INC. SITE PLAN DATED 5/3/16.
 - MONITORING WELLS SURVEYED BY MUIR CONSULTING, INC. 4/16/18. ALL OTHER FEATURES AND LOCATIONS ARE APPROXIMATE.

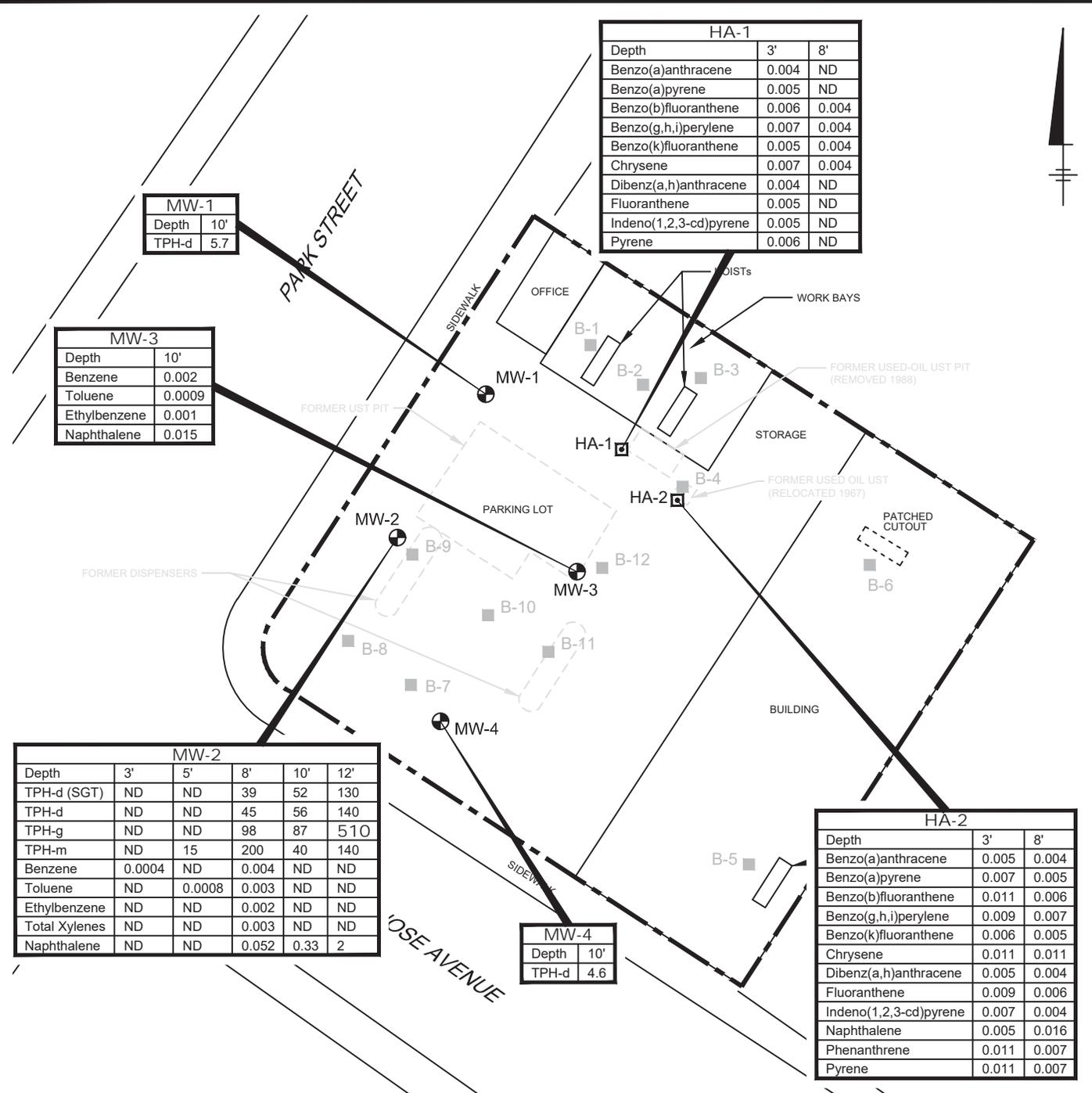


FORMER CHEVRON STATION 90955
 1200 PARK STREET
 ALAMEDA, CALIFORNIA

**SOIL ANALYTICAL RESULTS
 MARCH 2018**

ARCADIS Design & Consultancy
 for natural and built assets

FIGURE
3



APPENDIX A

Borehole Logs



Soil Boring Log

Project Name: 90955 Date Started: 03-21-2018 Logger: B. Jessup
 Project Number: B0090955.00SA.00005 Date Completed: 03-21-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
0.0-0.2'						Asphalt.		
0.2-0.7'		H		0.1		(0.2-0.7') SAND and GRAVEL, fine to medium, gravel 4 mm to 10 cm diameter, subangular to subrounded; poorly sorted; loose; moist; dark grayish brown (10YR 4/2).		
0.7-10.0'		A		0.1		(0.7-10.0') SAND, fine to medium; well sorted; loose; moist; dark grayish brown (10YR 4/2).		
2.5'		N		0.2		At 2.5' bgs. Brown (10YR 5/3).		
3.0'		D	HA-1-S-3-20180321 (1002)	0.3				
5.0'		A		0.1			Backfilled with native material	
6.0'		U		0.2				
7.0'		G		0.1				
8.0'		E	HA-1-S-8-20180321 (1005)	0.1		At 8.0' bgs. Trace silt.		
9.5'		R		0.1		At 9.5' bgs. Wet.		
10.0'						End of Boring at 10.0 ft bgs.		

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): 9.5
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/ in = inch; bgs= below ground surface; ppm = parts per million; NA = not applicable / available. Surface Elev.: NA
 North Coor: _____
 East Coor: _____

TRENTON E:\IMPORTANT PROJECT DATA\GINT\CHEVRON\90955\INDATA\GINT TEMPLATE (EXISTING) 90955.GPJ 4/2/18

Soil Boring Log

Project Name: 90955 Date Started: 03-21-2018 Logger: R. Alvarez
 Project Number: B0090955.00SA.00005 Date Completed: 03-21-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
0						(0.0-0.1') Asphalt.		
1		H		0.1		(0.1-0.8') GRAVEL, very fine to large pebble, subround to subangular; poorly sorted; dry; dark grayish brown (10YR 4/2).		
2		A		0.1		(0.8-3.0') SAND, very fine to fine; well sorted; dry; dark grayish brown (10YR 4/2).		
3		N		0.0				
4		D	HA-2-S-3-20180321 (1000)	0.0		(3.0-10.0') SAND, very fine to fine; well sorted; dense; brown (10YR 5/3).		
5				0.0			Backfilled with native material	
6		A		0.1				
7		U		0.0				
8		G		0.0				
9		E		0.0				
10		R	HA-2-S-8-20180321 (1010)	0.0				
						At 10.0' bgs. Wet.		
						End of Boring at 10.0 ft bgs.		

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): 9.5
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/ in = inch; bgs= below ground surface; ppm = parts per million; NA = not applicable / available. Surface Elev.: NA
 North Coor: _____
 East Coor: _____

TRENTON E:\IMPORTANT PROJECT DATA\GINT\CHEVRON\90955\INDATA\GINT TEMPLATE (EXISTING) 90955.GPJ 4/2/18

Soil Boring Log

Project Name: 90955 Date Started: 03-20-2018 Logger: K. Corrigan
 Project Number: B0090955.00SA.00005 Date Completed: 03-20-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
0.0 - 0.1		H		0.1	(0.0-0.1') Asphalt.			
0.1 - 0.7		A		0.0	(0.1-0.7') GRAVEL, very fine to large pebble, subround to subangular; poorly sorted; dry; dark grayish brown (10YR 4/2).		Neat cement	
0.7 - 3.0		N		0.3	(0.7-3.0') SAND, very fine to fine; trace silt; well sorted; dry; dark grayish brown (10YR 4/2).		2" Sch. 40 PVC Riser	
3.0 - 9.5		D	MW-1-S-3-20180320 (0940)	0.4	(3.0-9.5') SAND, very fine to fine; well sorted; dry; brown (10YR 5/3).		Hydrated Bentonite Chips-3/8"	
9.5 - 15.0		A	MW-1-S-5-20180320 (0950)	0.5			#2/12 Sand Filter Pack	
15.0 - 16.0		U	MW-1-S-5-20180320 (0950)	0.6				
		G		0.8				
		E		0.7				
		R		1.3				
			MW-1-S-10-20180320 (1310)	1.4	(9.5-15.0') SAND, very fine to fine; well sorted; dense; moist; light olive brown (2.5Y 5/6).		2" Sch. 40 PVC 0.02" slotted screen	
		4/4		1.7				
				1.6				
				1.4				
		3/4		1.2	At 13.0' bgs. Wet.			
			MW-1-S-15-20180320 (1320)	1.3				
						End of Boring at 15.0 ft bgs.		

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): 9.06
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/ in = inch; bgs= below ground surface; ppm = parts per million; NA = not applicable / available. Surface Elev.: NA
 North Coor: _____
 East Coor: _____

TRENTON E:\IMPORTANT PROJECT DATA\GINT\CHEVRON\90955\DATA\GINT TEMPLATE (EXISTING) 90955.GPJ 4/2/18

Soil Boring Log

Project Name: 90955 Date Started: 03-20-2018 Logger: K. Corrigan
 Project Number: B0090955.00SA.00005 Date Completed: 03-20-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
1		H	MW-2-S-3-20180320 (1020)	1.0	(0.0-0.1') Asphalt.		Neat cement 2" Sch. 40 PVC Riser	
2	A	0.9		(1.0-3.5') GRAVEL, very fine to small pebble, subround to subangular; poorly sorted; dense; dry; dark grayish brown (10YR 4/2).				
3	N	1.0						
4		D	MW-2-S-5-20180320 (1030)	0.9	(3.5-5.0') SAND, very fine to medium; well sorted; dense; dry; brown (10YR 5/3).		Hydrated Bentonite Chips-3/8"	
5	A	1.0						
6	U	17.7		(5.0-13.0') SAND, very fine to small pebble, subround to subangular; trace silt; poorly sorted; dense; dry; dark greenish gray (GLEY 1 4/1). Odor begins at 5.0' bgs.				
7	G	48.4						
8		E	MW-2-S-8-20180320 (1050)	95.6				
9	R	19.4		At 9.0' bgs. Moist.				
10		43.2						
11		2/4	MW-2-S-10-20180320 (1420)	41.4				
12		674		At 11.0' bgs. Wet.				
13			MW-2-S-12-20180320 (1430)	59.2				
14		3/3		7.4	(13.0-15.0') SAND, very fine to fine; trace silt; well sorted; dense; wet; light olive brown (2.5Y 5/6).			
15			MW-2-S-15-20180320 (1440)	1.9				
16						End of Boring at 15.0 ft bgs.		

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): 8.37
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/>

TRENTON E:\IMPORTANT PROJECT DATA\GINT\GHEV\90955\DATA\GINT TEMPLATE (EXISTING) 90955.GPJ 4/2/18

Soil Boring Log

Project Name: 90955 Date Started: 03-20-2018 Logger: K. Corrigan
 Project Number: B0090955.00SA.00005 Date Completed: 03-20-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
0.0-0.5'						(0.0-0.5') Asphalt/Concrete(5").		
0.5-0.7'						(0.5-0.7') GRAVEL, very fine to large pebble, subround to subangular; poorly sorted; dry; dark grayish brown (10YR 4/2).		
0.7-3.0'						(0.7-3.0') SAND, very fine to fine; trace silt; well sorted; dry; dark grayish; brown (10YR 4/2).		
3.0-10.0'						(3.0-10.0') SAND, very fine to fine; well sorted; dry; dense; brown (10YR 5/3).		
10.0-13.0'						(10.0-13.0') SAND, very fine to fine; well sorted; wet; dense; dark greenish gray (GLEY 1 4/5; 6/1). Odor present.		
13.0-15.0'						(13.0-15.0') SAND, very fine to fine; well sorted; wet; dense; brown (10YR 5/3). No odor		
End of Boring at 15.0 ft bgs.								

Neat cement
 2" Sch. 40 PVC Riser
 Hydrated Bentonite Chips-3/8"
 #2/12 Sand Filter Pack

2" Sch. 40 PVC 0.02" slotted screen

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): 8.69
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/ in = inch; bgs= below ground surface; ppm = parts per million; NA = not applicable / available. Surface Elev.: NA
 North Coor: _____
 East Coor: _____

TRENTON E:\IMPORTANT PROJECT DATA\GINT\CHEVRON\90955\INDATA\GINT TEMPLATE (EXISTING) 90955.GPJ 4/2/18

Soil Boring Log

Project Name: 90955 Date Started: 03-20-2018 Logger: K. Corrigan/B. Jessup
 Project Number: B0090955.00SA.00005 Date Completed: 03-21-2018 Editor: NA
 Project Location: 1200 Park Street, Alameda CA Weather Conditions: NA

Depth (feet)	Blow Counts	Recovery (in.)	Sample ID & Time	PID (ppm)	USCS Class	Description	Construction Details	Well
1		H	MW-4-S-3-20180320 (1130)	1.0	(0.0-0.1') Asphalt.	(0.1-0.8') GRAVEL, very fine to large pebble, subround to subangular; poorly sorted; dry; dark grayish brown (10YR 4/2).	Neat cement 2" Sch. 40 PVC Riser	
2	A	1.1		(0.7-3.0') SAND, very fine to fine; trace silt; well sorted; dry; dark grayish brown (10YR 4/2).				
3	N	1.0						
4		D	MW-4-S-5-20180320 (1140)	1.1	(3.0-15.0') SAND, very fine to fine; well sorted; dense; brown (10YR 5/3).	Hydrated Bentonite Chips-3/8"		
5	A	1.2						
6	U	1.2						
7	G	1.3						
8	E	1.2						
9		R	MW-4-S-10-20180321 (0815)	0.0	At 8.0' bgs. Trace silt, wet.	2" Sch. 40 PVC 0.02" slotted screen		
10	NA	0.1						
11		0.1						
12		0.0						
13		NA	MW-4-S-15-20180321 (0835)	0.3				
14		0.3						
15		0.3						
16						End of Boring at 15.0 ft bgs.		

Drilling Co.: Cascade Drilling Sampling Method: Hollow Stem Auger
 Driller: NA Sampling Interval: Continuous
 Drilling Method: Direct Push / Hollow Stem Auger Water Level Start (ft. bgs.): NA
 Drilling Fluid: None Water Level Finish (ft. bgs.): NA
 Drill Rig: Geoprobe Converted to Well: Yes No
 Remarks: ' / ft= feet; "/>

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APPENDIX B

Permits



Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 03/14/2018 By jamesy

Permit Numbers: W2018-0165 to W2018-0169
Permits Valid from 03/20/2018 to 03/20/2018

Application Id: 1520021860341
Site Location: 1200 Park St, Alameda, CA 94501, USA
Project Start Date: 03/20/2018
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org

City of Project Site: Alameda

Completion Date: 03/20/2018

Applicant: Arcadis U.S. Inc. - Andrea Sanchez
6296 San Ignacio Ave., Suite C, San Jose, CA 95119
Property Owner: M. Jay Garfinkle
352 Capetown Dr., Alameda, CA 94502
Client: Chevron Environmental Management
6001 Bollinger Canyon Rd., San Ramon, CA 94583
Contact: Katherine Szymanowski

Phone: 510-596-9675

Phone: --

Phone: --

Phone: --
Cell: --

Receipt Number: WR2018-0128	Total Due:	\$1853.00
Payer Name : Arcadis U.S. Inc.	Total Amount Paid:	\$1853.00
	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 4 Wells
Driller: Cascade Drilling - Lic #: 938110 - Method: auger

Work Total: \$1588.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2018-0165	03/14/2018	06/18/2018	MW-1	8.00 in.	2.00 in.	1.00 ft	15.00 ft
W2018-0166	03/14/2018	06/18/2018	MW-2	8.00 in.	2.00 in.	1.00 ft	15.00 ft
W2018-0167	03/14/2018	06/18/2018	MW-3	8.00 in.	2.00 in.	1.00 ft	15.00 ft
W2018-0168	03/14/2018	06/18/2018	MW-4	8.00 in.	2.00 in.	1.00 ft	15.00 ft

Specific Work Permit Conditions

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

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

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

Alameda County Public Works Agency - Water Resources Well Permit

or to Alameda County an Traffic Safety Plan for any lane closures or detours planned.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 30 days. Include permit number and site map.
5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
11. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

Borehole(s) for Investigation-Environmental/Monitoring Study - 2 Boreholes

Driller: Cascade Drilling - Lic #: 938110 - Method: Hand

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2018-0169	03/14/2018	06/18/2018	2	4.00 in.	10.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

Alameda County Public Works Agency - Water Resources Well Permit

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
 4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
 6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
 7. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.
 8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
 9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-

APPENDIX C

Well Completion Reports



APPENDIX D

Laboratory Analytical Report





ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

Report Date: April 25, 2018 17:07

Project: 90955

Account #: 11964
Group Number: 1922999
PO Number: 0015269765
Release Number: CMACLEOD

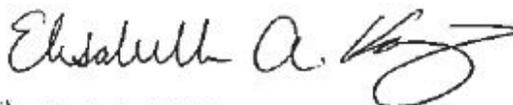
State of Sample Origin: CA

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Arcadis

Attn: Katherine Szymanowski

Respectfully Submitted,



Elisabeth A. Knisley
Project Manager

(717) 556-7262



SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-1-S-3-180320 Grab Soil	03/20/2018 09:40	9520222
MW-1-S-5-180320 Grab Soil	03/20/2018 09:50	9520223
MW-1-S-10-180320 Grab Soil	03/20/2018 13:10	9520224
MW-1-S-15-180320 Grab Soil	03/20/2018 13:20	9520225
MW-2-S-3-180320 Grab Soil	03/20/2018 10:20	9520226
MW-2-S-5-180320 Grab Soil	03/20/2018 10:30	9520227
MW-2-S-8-180320 Grab Soil	03/20/2018 10:50	9520228
MW-2-S-10-180320 Grab Soil	03/20/2018 14:20	9520229
MW-2-S-12-180320 Grab Soil	03/20/2018 14:30	9520230
MW-2-S-15-180320 Grab Soil	03/20/2018 14:40	9520231
MW-3-S-3-180320 Grab Soil	03/20/2018 13:30	9520232
MW-3-S-5-180320 Grab Soil	03/20/2018 13:40	9520233
MW-3-S-10-180320 Grab Soil	03/20/2018 15:50	9520234
MW-3-S-15-180320 Grab Soil	03/20/2018 16:00	9520235
MW-4-S-3-180320 Grab Soil	03/20/2018 11:30	9520236
MW-4-S-5-180320 Grab Soil	03/20/2018 11:40	9520237
MW-4-S-10-180321 Grab Soil	03/21/2018 08:15	9520238
MW-4-S-15-180321 Grab Soil	03/21/2018 08:35	9520239
HA-1-S-3-180321 Grab Soil	03/21/2018 10:02	9520240
HA-1-S-8-180321 Grab Soil	03/21/2018 10:05	9520241
HA-2-S-3-180321 Grab Soil	03/21/2018 10:00	9520242
HA-2-S-8-180321 Grab Soil	03/21/2018 10:10	9520243

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: MW-1-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520222
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.81
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.81
10237	Naphthalene	91-20-3	N.D.	0.0009	0.81
10237	Toluene	108-88-3	N.D.	0.0009	0.81
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.81
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	20.16
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	5.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520222
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 16:51	Jennifer K Howe	0.81
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 09:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 21:54	Jeremy C Giffin	20.16
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 16:07	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 14:40	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:10	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520223
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.83
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.83
10237	Naphthalene	91-20-3	N.D.	0.0009	0.83
10237	Toluene	108-88-3	N.D.	0.0009	0.83
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.83
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	20.63
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520223
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 17:14	Jennifer K Howe	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 09:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 22:32	Jeremy C Giffin	20.63
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/08/2018 22:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:02	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520224
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.71
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.71
10237	Naphthalene	91-20-3	N.D.	0.0008	0.71
10237	Toluene	108-88-3	N.D.	0.0008	0.71
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.71
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.86
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	5.7	4.6	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.6	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	13.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520224
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/20/2018 13:10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 17:38	Jennifer K Howe	0.71
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 23:10	Jeremy C Giffin	17.86
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 15:27	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:23	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:30	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520225
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.8
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.8
10237	Naphthalene	91-20-3	N.D.	0.0008	0.8
10237	Toluene	108-88-3	N.D.	0.0008	0.8
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.8
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	10	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	10	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520225
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:01	Jennifer K Howe	0.8
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 23:48	Jeremy C Giffin	18.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 15:47	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:45	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:50	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520226
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	0.0004	0.0004	0.7
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.7
10237	Naphthalene	91-20-3	N.D.	0.0008	0.7
10237	Toluene	108-88-3	N.D.	0.0008	0.7
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.7
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.63
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520226
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:24	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 00:26	Jeremy C Giffin	18.63
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 05:05	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:24	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:10	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520227
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.7
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.7
10237	Naphthalene	91-20-3	N.D.	0.0008	0.7
10237	Toluene	108-88-3	0.0008	0.0008	0.7
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.7
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.5	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	15	11	1
02516	TPH Motor Oil C16-C36	n.a.	15	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	16	4.5	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported. The sample was re-extracted outside the method required holding time to confirm sample matrix. Results are reported from both trials.				
Trial ID: RE					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.5	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported. The sample was re-extracted outside the method required holding time to confirm sample matrix. Results are reported from both trials.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	11.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Description: MW-2-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520227
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:30

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:47	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 01:04	Jeremy C Giffin	17.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/10/2018 18:57	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:45	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:31	Thomas C Wildermuth	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	2-RE	181080006A	04/23/2018 17:39	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	3	181080006A	04/18/2018 22:50	Kate E Lutte	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	2	18086820005A	03/27/2018 23:25	Scott W Freisher	1

Sample Description: MW-2-S-8-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520228
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles			SW-846 8260B	mg/kg	
10237	Benzene	71-43-2	0.004	0.0005	0.84
10237	Ethylbenzene	100-41-4	0.002	0.001	0.84
10237	Naphthalene	91-20-3	0.052	0.001	0.84
10237	Toluene	108-88-3	0.003	0.001	0.84
10237	Xylene (Total)	1330-20-7	0.003	0.001	0.84
GC Volatiles			SW-846 8015B modified	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	98	5.5	212.22
GC Miscellaneous			SW-846 8015B	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	45	5.2	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons			SW-846 8015B modified	mg/kg	
02516	Total TPH	n.a.	200	13	1
02516	TPH Motor Oil C16-C36	n.a.	200	13	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si			SW-846 8015B	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	39	5.2	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry			SM 2540 G-1997	%	
			%Moisture Calc		
00111	Moisture	n.a.	22.8	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-8-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520228
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180911AA	04/01/2018 16:24	Stephen C Nolte	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 06:07	Jeremy C Giffin	212.22
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:25	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:50	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 22:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520229
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles			SW-846 8260B	mg/kg	
10237	Benzene	71-43-2	N.D.	0.029	51.02
10237	Ethylbenzene	100-41-4	N.D.	0.058	51.02
10237	Naphthalene	91-20-3	0.33	0.058	51.02
10237	Toluene	108-88-3	N.D.	0.058	51.02
10237	Xylene (Total)	1330-20-7	N.D.	0.058	51.02
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles			SW-846 8015B modified	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	87	4.5	198.41
GC Miscellaneous			SW-846 8015B	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	56	4.6	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons			SW-846 8015B modified	mg/kg	
02516	Total TPH	n.a.	40	11	1
02516	TPH Motor Oil C16-C36	n.a.	40	11	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si			SW-846 8015B	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	52	4.6	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry			SM 2540 G-1997	%	
%Moisture Calc					
00111	Moisture	n.a.	12.6	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-2-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520229
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	Q180881AA	03/29/2018 21:01	Stephen C Nolte	51.02
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:14	Anastasia K Jaynes	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18089B34A	03/31/2018 06:45	Jeremy C Giffin	198.41
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:14	Anastasia K Jaynes	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:05	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:07	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 22:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18086820001A	03/27/2018 12:09	Larry E Bevins	1

Sample Description: MW-2-S-12-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520230
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles			SW-846 8260B	mg/kg	
10237	Benzene	71-43-2	N.D.	0.033	56.43
10237	Ethylbenzene	100-41-4	N.D.	0.066	56.43
10237	Naphthalene	91-20-3	2.0	0.066	56.43
10237	Toluene	108-88-3	N.D.	0.066	56.43
10237	Xylene (Total)	1330-20-7	N.D.	0.066	56.43
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.					
GC Volatiles			SW-846 8015B modified	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	510	19	827.81
GC Miscellaneous			SW-846 8015B	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	140	4.6	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons			SW-846 8015B modified	mg/kg	
02516	Total TPH	n.a.	140	12	1
02516	TPH Motor Oil C16-C36	n.a.	140	12	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si			SW-846 8015B	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	130	4.6	1
The holding time was not met. The client was notified and the data reported. The reverse surrogate, capric acid, is present at 1.0%.					
Wet Chemistry			SM 2540 G-1997	%	
%Moisture Calc					
00111	Moisture	n.a.	14.0	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-2-S-12-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520230
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	Q180881AA	03/30/2018 00:09	Stephen C Nolte	56.43
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 14:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 06:45	Jeremy C Giffin	827.81
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:45	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:28	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:12	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520231
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.76
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.76
10237	Naphthalene	91-20-3	N.D.	0.0009	0.76
10237	Toluene	108-88-3	N.D.	0.0009	0.76
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.76
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.09
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.6	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.6	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	13.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520231
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 19:10	Jennifer K Howe	0.76
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 14:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 14:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 01:41	Jeremy C Giffin	18.09
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 14:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/08/2018 23:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:06	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520232
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0008	1.34
10237	Ethylbenzene	100-41-4	N.D.	0.002	1.34
10237	Naphthalene	91-20-3	N.D.	0.002	1.34
10237	Toluene	108-88-3	N.D.	0.002	1.34
10237	Xylene (Total)	1330-20-7	N.D.	0.002	1.34
GC Volatiles		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	10	430.29
Reporting limits were raised due to sample foaming.					
GC Miscellaneous		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.8	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.8	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry		SM 2540 G-1997	%	%	
%Moisture Calc					
00111	Moisture	n.a.	16.2	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

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Sample Description: MW-3-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520232
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180872AA	03/29/2018 01:04	Stephen C Nolte	1.34
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 08:00	Jeremy C Giffin	430.29
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:02	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:51	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520233
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.73
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.73
10237	Naphthalene	91-20-3	N.D.	0.0009	0.73
10237	Toluene	108-88-3	N.D.	0.0009	0.73
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.73
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.66
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.7	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.7	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	14.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520233
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180872AA	03/29/2018 01:27	Stephen C Nolte	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 02:19	Jeremy C Giffin	20.66
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:04	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 18:15	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 18:11	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520234
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 15:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	0.002	0.0004	0.71
10237	Ethylbenzene	100-41-4	0.001	0.0008	0.71
10237	Naphthalene	91-20-3	0.015	0.0008	0.71
10237	Toluene	108-88-3	0.0009	0.0008	0.71
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.71
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.6	24.13
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	16.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520234
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 15:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 20:19	Jennifer K Howe	0.71
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 15:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 15:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18089B34A	03/31/2018 06:10	Jeremy C Giffin	24.13
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:16	Anastasia K Jaynes	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 19:19	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 18:31	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520235
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 16:00

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.66
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.66
10237	Naphthalene	91-20-3	N.D.	0.0008	0.66
10237	Toluene	108-88-3	N.D.	0.0008	0.66
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.66
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.53
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.7	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.7	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	14.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520235
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 16:00

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 20:42	Jennifer K Howe	0.66
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 16:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 16:00	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 02:57	Jeremy C Giffin	20.53
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 16:00	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:27	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 19:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520236
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Naphthalene	91-20-3	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	22.44
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	4.6	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	10	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	10	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520236
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:06	Jennifer K Howe	0.92
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 11:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 08:38	Jeremy C Giffin	22.44
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 19:41	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 19:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520237
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.91
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.91
10237	Naphthalene	91-20-3	N.D.	0.001	0.91
10237	Toluene	108-88-3	N.D.	0.001	0.91
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.91
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520237
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:29	Jennifer K Howe	0.91
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 11:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 04:13	Jeremy C Giffin	23.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:04	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:49	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:12	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-10-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520238
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 08:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.68
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.68
10237	Naphthalene	91-20-3	N.D.	0.0008	0.68
10237	Toluene	108-88-3	N.D.	0.0008	0.68
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.68
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.66
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	16.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-10-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520238
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/21/2018 08:15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:52	Jennifer K Howe	0.68
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/21/2018 08:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 04:51	Jeremy C Giffin	17.66
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 02:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 17:10	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:33	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-15-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520239
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 08:35

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.73
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.73
10237	Naphthalene	91-20-3	N.D.	0.0009	0.73
10237	Toluene	108-88-3	N.D.	0.0009	0.73
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.73
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.39
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D.	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	17.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-15-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520239
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/21/2018 08:35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 22:15	Jennifer K Howe	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/21/2018 08:35	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/21/2018 08:35	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 05:29	Jeremy C Giffin	20.39
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/21/2018 08:35	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 01:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 17:32	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-1-S-3-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-1

Chevron
ELLE Sample #: SW 9520240
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.004	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.005	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.006	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.007	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.005	0.004	1
10724	Chrysene	218-01-9	0.007	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.004	0.004	1
10724	Fluoranthene	206-44-0	0.005	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.005	0.004	1
10724	Naphthalene	91-20-3	N.D.	0.004	1
10724	Phenanthrene	85-01-8	N.D.	0.004	1
10724	Pyrene	129-00-0	0.006	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	6.4	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 07:20	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-1-S-8-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-1

Chevron
ELLE Sample #: SW 9520241
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	N.D.	0.004	1
10724	Benzo(a)pyrene	50-32-8	N.D.	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.004	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.004	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.004	0.004	1
10724	Chrysene	218-01-9	0.004	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	1
10724	Fluoranthene	206-44-0	N.D.	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	1
10724	Naphthalene	91-20-3	N.D.	0.004	1
10724	Phenanthrene	85-01-8	N.D.	0.004	1
10724	Pyrene	129-00-0	N.D.	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	10.8	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 07:44	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-2-S-3-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-2

Chevron
ELLE Sample #: SW 9520242
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:00

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.005	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.007	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.011	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.009	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.006	0.004	1
10724	Chrysene	218-01-9	0.011	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.005	0.004	1
10724	Fluoranthene	206-44-0	0.009	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.007	0.004	1
10724	Naphthalene	91-20-3	0.005	0.004	1
10724	Phenanthrene	85-01-8	0.011	0.004	1
10724	Pyrene	129-00-0	0.011	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.0	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 08:08	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-2-S-8-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-2

Chevron
ELLE Sample #: SW 9520243
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.004	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.005	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.006	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.007	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.005	0.004	1
10724	Chrysene	218-01-9	0.011	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.004	0.004	1
10724	Fluoranthene	206-44-0	0.006	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.004	0.004	1
10724	Naphthalene	91-20-3	0.016	0.004	1
10724	Phenanthrene	85-01-8	0.007	0.004	1
10724	Pyrene	129-00-0	0.007	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	11.5	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 08:32	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/kg	MDL mg/kg
Batch number: A180872AA	Sample number(s): 9520232-9520233	
Benzene	N.D.	0.0005
Ethylbenzene	N.D.	0.001
Naphthalene	N.D.	0.001
Toluene	N.D.	0.001
Xylene (Total)	N.D.	0.001
Batch number: A180911AA	Sample number(s): 9520228	
Benzene	N.D.	0.0005
Ethylbenzene	N.D.	0.001
Naphthalene	N.D.	0.001
Toluene	N.D.	0.001
Xylene (Total)	N.D.	0.001
Batch number: Q180881AA	Sample number(s): 9520229-9520230	
Benzene	N.D.	0.025
Ethylbenzene	N.D.	0.050
Naphthalene	N.D.	0.050
Toluene	N.D.	0.050
Xylene (Total)	N.D.	0.050
Batch number: X180871AA	Sample number(s): 9520222-9520227,9520231,9520234-9520239	
Benzene	N.D.	0.0005
Ethylbenzene	N.D.	0.001
Naphthalene	N.D.	0.001
Toluene	N.D.	0.001
Xylene (Total)	N.D.	0.001
Batch number: 18085SLB026	Sample number(s): 9520240-9520243	
Acenaphthene	N.D.	0.003
Acenaphthylene	N.D.	0.003
Anthracene	N.D.	0.003
Benzo(a)anthracene	N.D.	0.003
Benzo(a)pyrene	N.D.	0.003
Benzo(b)fluoranthene	N.D.	0.003
Benzo(g,h,i)perylene	N.D.	0.003
Benzo(k)fluoranthene	N.D.	0.003
Chrysene	N.D.	0.003
Dibenz(a,h)anthracene	N.D.	0.003
Fluoranthene	N.D.	0.003
Fluorene	N.D.	0.003

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Method Blank (continued)

Analysis Name	Result	MDL
	mg/kg	mg/kg
Indeno(1,2,3-cd)pyrene	N.D.	0.003
Naphthalene	N.D.	0.003
Phenanthrene	N.D.	0.003
Pyrene	N.D.	0.003
Batch number: 18085A16A	Sample number(s): 9520222-9520228,9520230-9520233,9520235-9520239	
TPH-GRO N. CA soil C6-C12	N.D.	0.5
Batch number: 18089B34A	Sample number(s): 9520229,9520234	
TPH-GRO N. CA soil C6-C12	N.D.	0.5
Batch number: 180950001A	Sample number(s): 9520222-9520239	
TPH-DRO soil C10-C28 microwave	N.D.	4.0
Batch number: 180890013A	Sample number(s): 9520222-9520239	
Total TPH	N.D.	10
TPH Motor Oil C16-C36	N.D.	10
Batch number: 180950002A	Sample number(s): 9520222-9520239	
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0
Batch number: 181080006A	Sample number(s): 9520227	
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: A180872AA	Sample number(s): 9520232-9520233								
Benzene	0.0200	0.0190	0.0200	0.0189	95	94	80-120	1	30
Ethylbenzene	0.0200	0.0188	0.0200	0.0188	94	94	74-120	0	30
Naphthalene	0.0200	0.0140	0.0200	0.0142	70	71	46-136	1	30
Toluene	0.0200	0.0193	0.0200	0.0194	97	97	80-120	0	30
Xylene (Total)	0.0600	0.0550	0.0600	0.0551	92	92	75-120	0	30
Batch number: A180911AA	Sample number(s): 9520228								
Benzene	0.0200	0.0188	0.0200	0.0190	94	95	80-120	1	30
Ethylbenzene	0.0200	0.0190	0.0200	0.0193	95	96	74-120	1	30
Naphthalene	0.0200	0.0176	0.0200	0.0171	88	86	46-136	3	30
Toluene	0.0200	0.0195	0.0200	0.0196	97	98	80-120	1	30
Xylene (Total)	0.0600	0.0567	0.0600	0.0568	94	95	75-120	0	30
Batch number: Q180881AA	Sample number(s): 9520229-9520230								
Benzene	1.00	1.01	1.00	0.975	101	98	80-120	4	30
Ethylbenzene	1.00	0.976	1.00	0.972	98	97	74-120	0	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Naphthalene	1.00	1.01	1.00	0.823	101	82	46-136	20	30
Toluene	1.00	0.964	1.00	1.01	96	101	80-120	5	30
Xylene (Total)	3.00	2.95	3.00	2.91	98	97	75-120	1	30
Batch number: X180871AA	Sample number(s): 9520222-9520227,9520231,9520234-9520239								
Benzene	0.0200	0.0188			94		80-120		
Ethylbenzene	0.0200	0.0189			94		74-120		
Naphthalene	0.0200	0.0185			92		46-136		
Toluene	0.0200	0.0194			97		80-120		
Xylene (Total)	0.0600	0.0561			93		75-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 18085SLB026	Sample number(s): 9520240-9520243								
Acenaphthene	1.67	1.69			101		78-119		
Acenaphthylene	1.67	1.77			106		45-149		
Anthracene	1.67	1.65			99		82-113		
Benzo(a)anthracene	1.67	1.55			93		76-119		
Benzo(a)pyrene	1.67	1.66			100		77-112		
Benzo(b)fluoranthene	1.67	1.55			93		78-120		
Benzo(g,h,i)perylene	1.67	1.47			88		78-111		
Benzo(k)fluoranthene	1.67	1.74			104		78-119		
Chrysene	1.67	1.55			93		78-115		
Dibenz(a,h)anthracene	1.67	1.55			93		79-117		
Fluoranthene	1.67	1.63			98		76-115		
Fluorene	1.67	1.62			97		80-112		
Indeno(1,2,3-cd)pyrene	1.67	1.49			90		78-113		
Naphthalene	1.67	1.60			96		81-111		
Phenanthrene	1.67	1.63			98		81-109		
Pyrene	1.67	1.61			97		80-107		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 18085A16A	Sample number(s): 9520222-9520228,9520230-9520233,9520235-9520239								
TPH-GRO N. CA soil C6-C12	11	8.51	11	8.12	77	74	61-135	5	30
Batch number: 18089B34A	Sample number(s): 9520229,9520234								
TPH-GRO N. CA soil C6-C12	11	8.41	11	8.39	76	76	61-135	0	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 180950001A	Sample number(s): 9520222-9520239								
TPH-DRO soil C10-C28 microwave	134	127.06			95		74-117		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 180890013A	Sample number(s): 9520222-9520239								
Total TPH	134	115.07			86		64-122		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 180950002A TPH-DRO soil C10-C28 w/Si Gel	Sample number(s): 9520222-9520239								
	134	126.03			94		59-120		
Batch number: 181080006A TPH-DRO soil C10-C28 w/Si Gel	Sample number(s): 9520227								
	134	121.7			91		59-120		
	%	%	%	%					
Batch number: 18082820004A Moisture	Sample number(s): 9520230-9520238								
	89.5	89.45			100		99-101		
Batch number: 18082820004B Moisture	Sample number(s): 9520222-9520226,9520228								
	89.5	89.45			100		99-101		
Batch number: 18085820005B Moisture	Sample number(s): 9520239-9520243								
	89.5	89.4			100		99-101		
Batch number: 18086820001A Moisture	Sample number(s): 9520229								
	89.5	89.37			100		99-101		
Batch number: 18086820005A Moisture	Sample number(s): 9520227								
	89.5	89.42			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: Q180881AA	Sample number(s): 9520229-9520230 UNSPK: P520252									
Benzene	0.0428	0.776	0.874	0.833	0.935	107	107	80-120	7	30
Ethylbenzene	0.268	0.776	1.02	0.833	1.18	97	110	74-120	15	30
Naphthalene	0.547	0.776	1.10	0.833	1.36	72	98	46-136	21	30
Toluene	N.D.	0.776	0.873	0.833	0.951	112	114	80-120	9	30
Xylene (Total)	0.429	2.33	2.87	2.50	3.25	105	113	75-120	12	30
Batch number: X180871AA	Sample number(s): 9520222-9520227,9520231,9520234-9520239 UNSPK: P520265									
Benzene	0.000766	0.0148	0.0152	0.0142	0.0154	98	103	80-120	1	30
Ethylbenzene	N.D.	0.0148	0.0146	0.0142	0.0152	99	107	74-120	4	30
Naphthalene	N.D.	0.0148	0.0136	0.0142	0.0103	92	72	46-136	28	30
Toluene	N.D.	0.0148	0.0152	0.0142	0.0159	103	112	80-120	5	30
Xylene (Total)	N.D.	0.0443	0.0435	0.0426	0.0443	98	104	75-120	2	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18085SLB026	Sample number(s): 9520240-9520243 UNSPK: P517932									
Acenaphthene	N.D.	1.65	1.59	1.64	1.61	97	98	78-119	1	30
Acenaphthylene	N.D.	1.65	1.68	1.64	1.69	102	103	45-149	1	30
Anthracene	N.D.	1.65	1.55	1.64	1.57	94	95	82-113	1	30
Benzo(a)anthracene	N.D.	1.65	1.40	1.64	1.42	85	86	76-119	2	30
Benzo(a)pyrene	N.D.	1.65	1.43	1.64	1.45	87	88	77-112	2	30
Benzo(b)fluoranthene	N.D.	1.65	1.44	1.64	1.34	87	82	78-120	7	30
Benzo(g,h,i)perylene	N.D.	1.65	1.34	1.64	1.33	81	81	76-111	0	30
Benzo(k)fluoranthene	N.D.	1.65	1.36	1.64	1.52	83	92	78-119	11	30
Chrysene	N.D.	1.65	1.36	1.64	1.43	82	87	78-115	5	30
Dibenz(a,h)anthracene	N.D.	1.65	1.45	1.64	1.45	88	88	79-117	0	30
Fluoranthene	N.D.	1.65	1.39	1.64	1.44	84	88	76-115	4	30
Fluorene	N.D.	1.65	1.50	1.64	1.55	91	94	80-112	3	30
Indeno(1,2,3-cd)pyrene	N.D.	1.65	1.37	1.64	1.37	83	83	78-113	0	30
Naphthalene	N.D.	1.65	1.51	1.64	1.52	91	93	81-111	1	30
Phenanthrene	N.D.	1.65	1.52	1.64	1.54	92	94	81-109	1	30
Pyrene	N.D.	1.65	1.47	1.64	1.50	89	91	80-107	2	30
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 180950001A	Sample number(s): 9520222-9520239 UNSPK: 9520239									
TPH-DRO soil C10-C28 microwave	N.D.	134	151.92			113		74-117		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 180890013A	Sample number(s): 9520222-9520239 UNSPK: 9520233									
Total TPH	N.D.	133	52.6	133	53.62	40*	40*	64-122	2	20
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 180950002A	Sample number(s): 9520222-9520239 UNSPK: 9520239									
TPH-DRO soil C10-C28 w/Si Gel	N.D.	134	148.57			111		59-120		
Batch number: 181080006A	Sample number(s): 9520227 UNSPK: 9520227									
TPH-DRO soil C10-C28 w/Si Gel	N.D.	134	102.19			76		59-120		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Batch number: 180950001A	Sample number(s): 9520222-9520239 BKG: 9520239			

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
TPH-DRO soil C10-C28 microwave	N.D.	N.D.	0 (1)	20
Batch number: 180950002A TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.25	200* (1)	20
Batch number: 181080006A TPH-DRO soil C10-C28 w/Si Gel	N.D.	N.D.	0 (1)	20
Batch number: 18082820004A Moisture	15.55	15.45	1	5
Batch number: 18082820004B Moisture	11.27	12.02	6*	5
Batch number: 18085820005B Moisture	20.47	20.81	2	5
Batch number: 18086820001A Moisture	30.74	26.52	15*	5
Batch number: 18086820005A Moisture	11.07	11.1	0	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/Naphthalene - Soil
Batch number: A180872AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9520232	112	102	104	91
9520233	113	101	101	100
Blank	111	99	100	100
LCS	107	99	106	111
LCSD	107	95	107	111
Limits:	50-141	54-135	52-141	50-131

Analysis Name: BTEX/Naphthalene - Soil
Batch number: A180911AA

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/Naphthalene - Soil

Batch number: A180911AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9520228	105	104	114	119
Blank	106	99	101	103
LCS	106	100	105	109
LCSD	104	96	106	108
Limits:	50-141	54-135	52-141	50-131

Analysis Name: BTEX/Naphthalene - Soil

Batch number: Q180881AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9520229	98	101	95	98
9520230	150*	159*	161*	170*
Blank	111	112	109	98
LCS	127	115	107	100
LCSD	113	113	111	102
MS	72	72	70	70
MSD	77	77	77	72
Limits:	50-141	54-135	52-141	50-131

Analysis Name: BTEX/Naphthalene - Soil

Batch number: X180871AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9520222	100	106	104	100
9520223	99	103	103	100
9520224	99	105	102	100
9520225	98	105	104	98
9520226	99	102	107	92
9520227	99	103	104	96
9520231	97	103	104	104
9520234	99	105	104	105
9520235	99	105	104	98
9520236	100	106	104	94
9520237	99	104	104	97
9520238	99	106	103	97
9520239	99	104	104	97
Blank	98	98	104	100
LCS	98	100	105	104
MS	99	106	105	105
MSD	96	97	109	101
Limits:	50-141	54-135	52-141	50-131

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAH's 8270C Soil
Batch number: 18085SLB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9520240	86	90	91
9520241	85	89	90
9520242	89	93	93
9520243	90	92	91
Blank	90	92	96
LCS	94	93	95
MS	89	88	90
MSD	90	89	91
Limits:	49-118	57-116	55-118

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 18085A16A

	Trifluorotoluene-F
9520222	89
9520223	84
9520224	78
9520225	72
9520226	96
9520227	78
9520228	94
9520230	138
9520231	77
9520232	107
9520233	80
9520235	92
9520236	80
9520237	73
9520238	75
9520239	89
Blank	92
LCS	92
LCSD	88
Limits:	50-142

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 18089B34A

	Trifluorotoluene-F
9520229	104
9520234	80
Blank	94

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-GRO N. CA soil C6-C12

Batch number: 18089B34A

Trifluorotoluene-F

LCS	93
LCSD	92

Limits: 50-142

Analysis Name: TPH Fuels by GC (Soils)

Batch number: 180890013A

Chlorobenzene

Orthoterphenyl

	Chlorobenzene	Orthoterphenyl
9520222	104	106
9520223	106	105
9520224	97	94
9520225	95	107
9520226	103	97
9520227	94	99
9520228	108	91
9520229	115	107
9520230	99	99
9520231	102	102
9520232	84	92
9520233	100	105
9520234	93	96
9520235	100	106
9520236	96	103
9520237	91	94
9520238	102	101
9520239	105	112
Blank	102	101
LCS	104	99
MS	99	99
MSD	104	98

Limits: 58-129 50-126

Analysis Name: TPH-DRO soil C10-C28 microwave

Batch number: 180950001A

Orthoterphenyl

9520222	99
9520223	92
9520224	95
9520225	95
9520226	97
9520227	98

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-DRO soil C10-C28 microwave

Batch number: 180950001A

	Orthoterphenyl
9520228	94
9520229	91
9520230	96
9520231	91
9520232	88
9520233	90
9520234	88
9520235	92
9520236	100
9520237	92
9520238	91
9520239	78
Blank	98
DUP	94
LCS	97
MS	115

Limits: 55-135

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel

Batch number: 180950002A

	Orthoterphenyl
9520222	100
9520223	78
9520224	104
9520225	94
9520226	95
9520227	98
9520228	96
9520229	95
9520230	97
9520231	99
9520232	90
9520233	101
9520234	86
9520235	95
9520236	100
9520237	97
9520238	90
9520239	79
Blank	95
DUP	84

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 04/25/2018 17:07

Group Number: 1922999

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel

Batch number: 180950002A

Orthoterphenyl

LCS	101
MS	117

Limits: 37-127

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel

Batch number: 181080006A

Orthoterphenyl

9520227RE	94
Blank	109
DUP	98
LCS	100
MS	90

Limits: 37-127

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

Acct. # 90955
032218-21

Group # 11964

For Lancaster Laboratories use only
Sample # 9520002-43

Instructions on reverse side correspond with circled numbers.

SCR #: _____

Results in Dry Weight
 J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds
 8021 MTBE Confirmation
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run _____ oxy's on highest hit
 Run _____ oxy's on all hits

① Client Information
 Facility # 90955
 Site Address 1200 Park St., Alameda CA 94501
 Chevron PM Lead Consultant
 Consultant/Office Arcadis US, Inc./100 Montgomery St., San Francisco CA
 Consultant Project Mgr. Katherine Szymonowski
 Consultant Phone # 510 596 9675

② Sample Identification
 Sampler Kevin Corrigan

Sample Identification	Collected		Grab	Composite
	Date	Time		
MW-1-5-3-20180320	03/20/18	0940	X	X
MW-1-5-5-20180320	03/20/18	0950	X	X
MW-1-5-10-20180320	03/20/18	1310	X	X
MW-1-5-15-20180320	03/20/18	1320	X	X
MW-2-5-3-20180320	03/20/18	1020	X	X
MW-2-5-5-20180320	03/20/18	1030	X	X
MW-2-5-8-20180320	03/20/18	1050	X	X
MW-2-5-10-20180320	03/20/18	1420	X	X
MW-2-5-12-20180320	03/20/18	1430	X	X
MW-2-5-15-20180320	03/20/18	1440	X	X
MW-3-5-3-20180320	03/20/18	1330	X	X
MW-3-5-5-20180320	03/20/18	1340	X	X
MW-3-5-10-20180320	03/20/18	1550	X	X

③ Matrix
 Sediment
 Ground
 Surface
 Air
 Soil
 Potable
 NPDES
 Oil

④ Total Number of Containers
 8260
 8260
 TPH GRO/NO 8015
 TPH 8015 MOD DRO
 Silica Gel Cleanup
 8260 Full Scan
 Oxygenates
 Total Lead Method
 Dissolved Lead Method

⑤ Analyses Requested
 Date 3/21/18 Time 1430
 Date 2/21/18 Time 1655
 Date 3/23/18 Time 1015

⑥ Relinquished by Radley Alvarez
 Relinquished by A. Alvarez 2/21/18 1630
 Relinquished by UPS FedEx Other
 Temperature Upon Receipt 11.6 °C
 Custody Seals Intact? (Yes) No

⑦ Turnaround Time Requested (TAT) (please circle)
 Standard 5 day 48 hour 24 hour
 72 hour

⑧ Data Package Options (please circle if required)
 Type I - Full Type VI (Raw Data)



Chevron California Region Analysis Request/Chain of Custody

2 of 2

Lancaster Laboratories **Acct. # 11964** Group # **192999** Sample # **952022-43**
 Instructions on reverse side correspond with circled numbers.

SCR #: _____

Client Information **WBS**
 Facility # **90955**
 Site Address **1200 Park St. Alameda CA 94501**
 Chevron PM **Lead Consultant**

Consultant/Office **Arcudis**
 Consultant Project Mgr. **Katherine Szymanowski**
 Consultant Phone # **510 596 9675**

Sampler **Kevin Corrigan**

Matrix
 Sediment Soil Potable Ground NPDES Surface Air Oil

Total Number of Containers

Analyses Requested
 8260 TPH GRO/8015 8260
 BTEX + MTBE 8021 8021 + Naphthalene

8260 Full Scan
 Silica Gel Cleanup
 TPH 8015 MOD DRO

Total Lead Method
 Dissolved Lead Method

Oxygenates

TPH 8015 MOD DRO

TPH GRO/8015

BTEX + MTBE 8021

8260

TPH 8015 MOD DRO

8260 Full Scan

Silica Gel Cleanup

TPH 8015 MOD DRO

TPH GRO/8015

BTEX + MTBE 8021

8260

TPH 8015 MOD DRO

8260 Full Scan

Silica Gel Cleanup

TPH 8015 MOD DRO

TPH GRO/8015

BTEX + MTBE 8021

8260

Sample Identification	Collected		Grab	Relinquished by	Date	Time	Received by	Date	Time	Remarks
	Date	Time								
MW-3-5-15-20180320	3/20/18	1600	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
MW-4-5-3-20180320	3/20/18	1130	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
MW-4-5-5-20180320	↓	1140	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
MW-4-5-10-20180321	3/21/18	0815	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
MW-4-5-15-20180321	↓	0835	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
HA-1-S-3-20180321	↓	1002	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
HA-1-S-8-20180321	↓	1005	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
HA-2-S-3-20180321	↓	1000	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270
HA-2-S-8-20180321	↓	1010	X	Rodley Alvarez	3/21/18	1430	[Signature]	3/21/18	1655	PATHS by 8270

Relinquished by **Rodley Alvarez**
 Relinquished by **[Signature]**
 Relinquished by Commercial Carrier:
 UPS FedEx Other

Temperature Upon Receipt **0.6/1.6 °C**
 Custody Seals Intact? **Yes** No



Client: CA Office

Delivery and Receipt Information

Delivery Method:	<u>BASC</u>	Arrival Timestamp:	<u>03/23/2018 10:15</u>
Number of Packages:	<u>3</u>	Number of Projects:	<u>3</u>
State/Province of Origin:	<u>CA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wyatt Shiffler (12792) at 14:52 on 03/23/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-02	1.6	DT	Wet	Y	Bagged	N
2	DT42-02	0.6	DT	Wet	Y	Bagged	N
3	DT42-02	0.9	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	non-detect
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

APPENDIX E

Data Validation Report



CHEVRON

DATA REVIEW

1200 Park Street
Alameda, California

Volatile Organic Compounds (VOC), Semivolatile Organic Compounds (SVOCs), and Total Petroleum Hydrocarbon (TPH) Analyses

SDG #: 1922999

Analyses Performed By:
Eurofins Lancaster Laboratories
Lancaster, Pennsylvania

Report #: 29686R
Review Level: Tier II
Project: B0090955.00SA.00005



DATA REVIEW REPORT

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 1922999 for samples collected in association with the former Chevron site at 1200 Park Street in Alameda, California. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOCs	GRO	DRO	PAH	Misc.
MW-1-S-3-180320	9520222	Soil	3/20/2018		X	X	X		
MW-1-S-5-180320	9520223	Soil	3/20/2018		X	X	X		
MW-1-S-10-180320	9520224	Soil	3/20/2018		X	X	X		
MW-1-S-15-180320	9520225	Soil	3/20/2018		X	X	X		
MW-2-S-3-180320	9520226	Soil	3/20/2018		X	X	X		
MW-2-S-5-180320	9520227	Soil	3/20/2018		X	X	X		
MW-2-S-8-180320	9520228	Soil	3/20/2018		X	X	X		
MW-2-S-10-180320	9520229	Soil	3/20/2018		X	X	X		
MW-2-S-12-180320	9520230	Soil	3/20/2018		X	X	X		
MW-2-S-15-180320	9520231	Soil	3/20/2018		X	X	X		
MW-3-S-3-180320	9520232	Soil	3/20/2018		X	X	X		
MW-3-S-5-180320	9520233	Soil	3/20/2018		X	X	X		
MW-3-S-10-180320	9520234	Soil	3/20/2018		X	X	X		
MW-3-S-15-180320	9520235	Soil	3/20/2018		X	X	X		
MW-4-S-3-180320	9520236	Soil	3/20/2018		X	X	X		
MW-4-S-5-180320	9520237	Soil	3/20/2018		X	X	X		
MW-4-S-10-180321	9520238	Soil	3/21/2018		X	X	X		
MW-4-S-15-180321	9520239	Soil	3/21/2018		X	X	X		
HA-1-S-3-180321	9520240	Soil	3/21/2018					X	
HA-1-S-8-180321	9520241	Soil	3/21/2018					X	
HA-2-S-3-180321	9520242	Soil	3/21/2018					X	
HA-2-S-8-180321	9520243	Soil	3/21/2018					X	

Note: Soil sample results were reported on a dry-weight basis.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of quality assurance (QA) or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

DATA REVIEW REPORT

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260B, 8015B, and 8270C. Validation was performed following the procedures specified in *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (October 1999).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

DATA REVIEW REPORT

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

DATA REVIEW REPORT

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
VOCs by 8260B	Water (Preserved)	14 days from collection to analysis	Cool to < 6 °C; pH < 2 with HCl
	Water (Unpreserved)	7 days from collection to analysis	Cool to < 6 °C
	Soil	14 days from collection to analysis	Cool to < 6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

QA blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

If an analyte is detected in a blank at a concentration greater than the method detection limit (MDL), a blank action level (BAL) is calculated as five times the concentration detected in the blank. The BAL for common laboratory contaminants (e.g. acetone, methylene chloride) is calculated at ten times the blank concentration. Detected analytes in the associated samples are compared to the BAL. If the result is greater than the BAL, no qualification is required, and any laboratory-assigned flags are removed, otherwise the result is qualified as not detected (UB) at either the sample reporting limit or the concentration detected in the sample, whichever is greater.

Target compounds were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with surrogates exhibiting recoveries outside of the control limits are presented in the following table.

Sample	Surrogate	Recovery
MW-2-S-12-180320	Dibromofluoromethane 1,2-Dichloroethane-d ₄ Toluene-d ₈ 4-Bromofluorobenzene	> UL

The sample results associated with surrogate deviations are qualified according to the criteria presented in the following table.

DATA REVIEW REPORT

Control Limit	Sample Result	Qualification
> UL (Upper Control Limit)	Non-detect	No Action
	Detect	J
< LL (Lower Control Limit) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

All compounds associated with the MS/MSD analyses exhibited acceptable recoveries and RPDs.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS/LCSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS and LCSD results must be within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analyses exhibited recoveries and RPDs within the control limits.

6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 25% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL for water matrices or three times the RL for soil matrices is applied to the difference between the results.

Field duplicate samples were not collected for this SDG.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR VOCS

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas Chromatography/Mass Spectrometry (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment and/or Field Blanks	X				X
C. Trip Blanks	X				X
Surrogates Accuracy (%R)		X	X		
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD RPD		X		X	
Laboratory Duplicate Sample RPD	X				X
Field Duplicate Sample RPD	X				X
Dilution Factor		X		X	
Moisture Content		X		X	

%R - Percent recovery

RPD - Relative percent difference

DATA REVIEW REPORT

TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE ORANICS (TPH-G/GRO) ANALYSIS

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
TPH-G/GRO by SW-846 8015B	Water	14 days from collection to analysis	Cool to < 6 °C
	Soil	14 days from collection to analysis	Cool to < 6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

QA blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

If an analyte is detected in a blank at a concentration greater than the method detection limit (MDL), a blank action level (BAL) is calculated as five times the concentration detected in the blank. Detected analytes in the associated samples are compared to the BAL. If the result is greater than the BAL, no qualification is required, and any laboratory-assigned flags are removed, otherwise the result is qualified as not detected (UB) at either the sample reporting limit or the concentration detected in the sample, whichever is greater.

Target analytes were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic analytes are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The TPH-G/GRO analysis requires all surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on samples where the analyte concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD analysis was not performed using a sample from this SDG.

DATA REVIEW REPORT

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The spiked analytes used in the LCS/LCSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS and LCSD results must be within the laboratory-established acceptance limits.

All analytes associated with the LCS/LCSD analyses exhibited recoveries and RPDs within the control limits.

6. Laboratory Duplicate Sample Analysis

The laboratory duplicate sample analysis is used to assess the precision of the analytical method. The RPD between the duplicate sample results must be within the laboratory-established control limit. The laboratory duplicate sample RPD criterion is applied when parent and duplicate sample concentrations are at least five times the reporting limit (RL). When the parent and duplicate sample concentrations are less than five times the RL, a control limit of one times the RL for water matrices and two times the RL for soil matrices is applied to the difference between the results.

The laboratory duplicate sample analysis was not performed using a sample from within this SDG.

7. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 25% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL for water matrices or three times the RL for soil matrices is applied to the difference between the results.

Field duplicate samples were not collected for this SDG.

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR TPH-G/GRO

TPH-G/GRO SW-846 8015B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas Chromatography/Flame Ionization Detector (GC/FID)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment and/or Field Blanks	X				X
C. Trip Blanks	X				X
Surrogates Accuracy (%R)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD RPD		X		X	
Laboratory Duplicate Sample RPD	X				X
Field Duplicate Sample RPD	X				X
Dilution Factor		X		X	
Moisture Content		X		X	

%R = Percent recovery

RPD = Relative percent difference

DATA REVIEW REPORT

TOTAL PETROLEUM HYDROCARBONS DIESEL AND MOTOR OIL RANGE ORANICS (TPH-D/MO/DRO) ANALYSIS

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
TPH-D/MO/DRO by SW-846 8015B	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to < 6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to < 6 °C

The analyses that exceeded the holding time are presented in the following table; all other holding times were met.

Sample	Analysis/Analyte	Extraction Completed	Holding Time Criteria
MW-1-S-3-180320 MW-1-S-10-180320 MW-1-S-15-180320 MW-2-S-3-180320 MW-2-S-8-180320 MW-2-S-10-180320 MW-2-S-12-180320 MW-3-S-3-180320 MW-3-S-5-180320 MW-3-S-10-180320 MW-3-S-15-180320 MW-4-S-3-180320 MW-4-S-5-180320	TPH-DRO C10-C28	20 Days	14 Days
MW-1-S-5-180320 MW-2-S-15-180320 MW-4-S-10-180321 MW-4-S-15-180321	TPH-DRO C10-C28	19 Days	14 Days
MW-2-S-5-180320	TPH-DRO C10-C28	21 Days	14 Days
MW-1-S-3-180320 MW-1-S-5-180320 MW-1-S-10-180320 MW-1-S-15-180320 MW-2-S-3-180320 MW-2-S-5-180320 (initial extraction) MW-2-S-8-180320 MW-2-S-10-180320 MW-2-S-12-180320 MW-2-S-15-180320 MW-3-S-3-180320 MW-3-S-5-180320 MW-3-S-10-180320 MW-3-S-15-180320 MW-4-S-3-180320 MW-4-S-5-180320	TPH-DRO C10-C28 w/ Si Gel	16 Days	14 Days
MW-4-S-10-180321 MW-4-S-15-180321	TPH-DRO C10-C28 w/ Si Gel	15 Days	14 Days
MW-2-S-5-180320 (re-extraction)	TPH-DRO C10-C28 w/ Si Gel	29 Days	14 Days

DATA REVIEW REPORT

Sample results for parameters that were analyzed past the recommended holding times were qualified as specified in the table below.

Criteria	Qualification	
	Detects	Non-detects
Analysis completed < 2x holding time	J	UJ
Analysis completed > 2x holding time	J	R

2. Blank Contamination

QA blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

If an analyte is detected in a blank at a concentration greater than the method detection limit (MDL), a blank action level (BAL) is calculated as five times the concentration detected in the blank. Detected analytes in the associated samples are compared to the BAL. If the result is greater than the BAL, no qualification is required, and any laboratory-assigned flags are removed, otherwise the result is qualified as not detected (UB) at either the sample reporting limit or the concentration detected in the sample, whichever is greater.

Target analytes were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic analytes are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The TPH-D/MO/DRO analysis requires all surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on samples where the analyte concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Samples MW-2-S-5-180320, MW-3-S-5-180320, and MW-4-S-15-180321 were used in the MS and MS/MSD analyses. Samples associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample	Analyte	MS Recovery	MSD Recovery
MW-3-S-5-180320	Total TPH	< LL but > 10%	< LL but > 10%

DATA REVIEW REPORT

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of MS/MSD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked analytes used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All analytes associated with the LCS analyses exhibited recoveries within the control limits.

6. Laboratory Duplicate Sample Analysis

The laboratory duplicate sample analysis is used to assess the precision of the analytical method. The RPD between the duplicate sample results must be within the laboratory-established control limit. The laboratory duplicate sample RPD criterion is applied when parent and duplicate sample concentrations are at least five times the reporting limit (RL). When the parent and duplicate sample concentrations are less than five times the RL, a control limit of one times the RL for water matrices and two times the RL for soil matrices is applied to the difference between the results.

All analytes associated with the laboratory duplicate sample analyses exhibited RPDs within the control limits.

7. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 25% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL for water matrices or three times the RL for soil matrices is applied to the difference between the results.

Field duplicate samples were not collected for this SDG.

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR TPH-D/MO/DRO

TPH-D/MO/DRO: SW-846 8015B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas Chromatography/Flame Ionization Detector (GC/FID)					
Tier II Validation					
Holding Times		X	X		
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment and/or Field Blanks	X				X
Surrogates Accuracy (%R)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCSD/LCSD RPD	X				X
Laboratory Duplicate Sample RPD		X		X	
Field Duplicate Sample RPD	X				X
Dilution Factor		X		X	
Moisture Content		X		X	

%R = Percent recovery
 RPD = Relative percent difference

DATA REVIEW REPORT

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270C	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to < 6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to < 6 °C

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits, and that all SVOC surrogate recoveries be greater than ten percent.

All samples exhibited surrogate recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on samples where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified, and the laboratory qualifier will be removed. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

All compounds associated with the MS/MSD analysis exhibited acceptable recoveries and RPDs.

DATA REVIEW REPORT

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 25% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL for water matrices or three times the RL for soil matrices is applied to the difference between the results.

Field duplicate samples were not collected for this SDG.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment and/or Field Blanks	X				X
Surrogates Accuracy (%R)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD RPD	X				X
Field Duplicate Sample RPD		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
%R	Percent Recovery				
RPD	Relative Percent Difference				

DATA REVIEW REPORT

Validation Performed By: Dennis Dyke

Signature: 

Date: May 2, 2018

CHAIN OF CUSTODY CORRECTED SAMPLE ANALYSIS DATA SHEETS





Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

Acct. # 90955
032218-21

Group # 11964

For Lancaster Laboratories use only

Sample # 9520002-43

Client Information

Facility # 90955
Site Address 1200 Park St., Alameda CA 94501
Chevron PM Lead Consultant
Consultant/Office Arcadis US, Inc./100 Montgomery St., San Francisco CA
Consultant Project Mgr. Katherine Szymonowski
Consultant Phone # 510 596 9675

Matrix

Sediment Soil Water
 NPDES Surface Potable Ground Air Oil

Analyses Requested

TPH 8015 MOD DRO 8260 8260
TPH GRO/MO 8015 8260
BTEX + MTBE 8021 8260
8260 Full Scan
Silica Gel Cleanup
Oxygenates
Total Lead Method
Dissolved Lead Method

SCR #: _____

Results in Dry Weight
 J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds
 8021 MTBE Confirmation
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run _____ oxy's on highest hit
 Run _____ oxy's on all hits

Sample Identification

Sample Identification	Collected		Grab	Composite
	Date	Time		
MW-1-5-3-20180320	03/20/18	0940	X	X
MW-1-5-5-20180320	03/20/18	0950	X	X
MW-1-5-10-20180320	03/20/18	1310	X	X
MW-1-5-15-20180320	03/20/18	1320	X	X
MW-2-5-3-20180320	03/20/18	1020	X	X
MW-2-5-5-20180320	03/20/18	1030	X	X
MW-2-5-8-20180320	03/20/18	1050	X	X
MW-2-5-10-20180320	03/20/18	1420	X	X
MW-2-5-12-20180320	03/20/18	1430	X	X
MW-2-5-15-20180320	03/20/18	1440	X	X
MW-3-5-3-20180320	03/20/18	1330	X	X
MW-3-5-5-20180320	03/20/18	1340	X	X
MW-3-5-10-20180320	03/20/18	1550	X	X

Remarks

Turnaround Time Requested (TAT) (please circle)

Standard 5 day 48 hour 24 hour
72 hour

Relinquished by

Radley Alvarez
Date 3/21/18 Time 1430
Date 3/21/18 Time 1630
Date 3/23/18 Time 1015

Data Package Options (please circle if required)

Type I - Full Type VI (Raw Data)

Temperature Upon Receipt

11.6 °C

Custody Seals Intact? (Yes) No



Chevron California Region Analysis Request/Chain of Custody

2 of 2

Lancaster Laboratories Acct. # 11964 Group # 192999 Sample # 9520222-43
 032218-01
 Instructions on reverse side correspond with circled numbers.

SCR #: _____

Client Information
 Facility # 90955 WBS
 Site Address 1200 Park St. Alameda CA 94501
 Chevron PM Lead Consultant

Consultant/Office Arcudis
 Consultant Project Mgr. Katherine Szymanowski
 Consultant Phone # 510 596 9675

Sampler Kevin Corrigan

Sample Identification

Sample ID	Collected		Grab
	Date	Time	
MW-3-5-15-20180320	3/20/18	1600	X
MW-4-5-3-20180320	3/20/18	1130	X
MW-4-5-5-20180320	↓	1140	X
MW-4-5-10-20180321	3/21/18	0815	X
MW-4-5-15-20180321	↓	0835	X
HA-1-5-3-20180321	↓	1002	X
HA-1-5-8-20180321	↓	1005	X
HA-2-5-3-20180321	↓	1000	X
HA-2-5-8-20180321	↓	1010	X

Matrix
 Sediment Soil Potable Ground Surface NPDES Air Oil

Total Number of Containers

Analysis	8260	8260	TPH GRO/8015	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 Full Scan	Oxygenates	Total Lead Method	Dissolved Lead Method
BTX + MTBE 8021 + NPHthalene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
8260	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
8260	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Analyses Requested

Relinquished by	Date	Time	Received by	Date	Time
<u>Rodney Alvarez</u>	<u>3/21/18</u>	<u>1430</u>	<u>[Signature]</u>	<u>3/21/18</u>	<u>1655</u>
<u>[Signature]</u>	<u>22 April 18</u>	<u>1638</u>	<u>[Signature]</u>		

Relinquished by Commercial Carrier:
 UPS FedEx Other

Temperature Upon Receipt 0.6/1.6 °C

Data Package Options (please circle if required)
 Standard 5 day 72 hour 48 hour 24 hour
 Type I - Full Type VI (Raw Data)

Custody Seals Intact? Yes No

Remarks

8260

Sample Description: MW-1-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520222
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.81
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.81
10237	Naphthalene	91-20-3	N.D.	0.0009	0.81
10237	Toluene	108-88-3	N.D.	0.0009	0.81
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.81
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	20.16
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	5.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520222
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 16:51	Jennifer K Howe	0.81
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 09:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 21:54	Jeremy C Giffin	20.16
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 09:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 16:07	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 14:40	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:10	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520223
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.83
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.83
10237	Naphthalene	91-20-3	N.D.	0.0009	0.83
10237	Toluene	108-88-3	N.D.	0.0009	0.83
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.83
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	20.63
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520223
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 09:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 17:14	Jennifer K Howe	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 09:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 22:32	Jeremy C Giffin	20.63
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 09:50	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/08/2018 22:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:02	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520224
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.71
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.71
10237	Naphthalene	91-20-3	N.D.	0.0008	0.71
10237	Toluene	108-88-3	N.D.	0.0008	0.71
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.71
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.86
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	5.7 J	4.6	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. JJ	4.6	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	13.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520224
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 17:38	Jennifer K Howe	0.71
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 23:10	Jeremy C Giffin	17.86
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:10	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 15:27	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:23	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:30	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-1-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520225
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.8
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.8
10237	Naphthalene	91-20-3	N.D.	0.0008	0.8
10237	Toluene	108-88-3	N.D.	0.0008	0.8
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.8
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	10	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	10	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-1-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-1

Chevron
ELLE Sample #: SW 9520225
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:01	Jennifer K Howe	0.8
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/26/2018 23:48	Jeremy C Giffin	18.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:20	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 15:47	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 15:45	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 16:50	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520226
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	0.0004	0.0004	0.7
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.7
10237	Naphthalene	91-20-3	N.D.	0.0008	0.7
10237	Toluene	108-88-3	N.D.	0.0008	0.7
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.7
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.63
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520226
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/20/2018 10:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:24	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 00:26	Jeremy C Giffin	18.63
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:20	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 05:05	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:24	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:10	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520227
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.7
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.7
10237	Naphthalene	91-20-3	N.D.	0.0008	0.7
10237	Toluene	108-88-3	0.0008	0.0008	0.7
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.7
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.5	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	15	11	1
02516	TPH Motor Oil C16-C36	n.a.	15	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	16 J	4.5	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported. The sample was re-extracted outside the method required holding time to confirm sample matrix. Results are reported from both trials.				
Trial ID: RE					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. R	4.5	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported. The sample was re-extracted outside the method required holding time to confirm sample matrix. Results are reported from both trials.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	11.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Description: MW-2-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520227
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/20/2018 10:30

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 18:47	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 01:04	Jeremy C Giffin	17.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/10/2018 18:57	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:45	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:31	Thomas C Wildermuth	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	2-RE	181080006A	04/23/2018 17:39	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	3	181080006A	04/18/2018 22:50	Kate E Lutte	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	2	18086820005A	03/27/2018 23:25	Scott W Freisher	1

Sample Description: MW-2-S-8-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520228
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles			SW-846 8260B	mg/kg	
10237	Benzene	71-43-2	0.004	0.0005	0.84
10237	Ethylbenzene	100-41-4	0.002	0.001	0.84
10237	Naphthalene	91-20-3	0.052	0.001	0.84
10237	Toluene	108-88-3	0.003	0.001	0.84
10237	Xylene (Total)	1330-20-7	0.003	0.001	0.84
GC Volatiles			SW-846 8015B modified	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	98	5.5	212.22
GC Miscellaneous			SW-846 8015B	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	45 J	5.2	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons			SW-846 8015B modified	mg/kg	
02516	Total TPH	n.a.	200	13	1
02516	TPH Motor Oil C16-C36	n.a.	200	13	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si			SW-846 8015B	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	39 J	5.2	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry			SM 2540 G-1997	%	
%Moisture Calc					
00111	Moisture	n.a.	22.8	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-8-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520228
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 10:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180911AA	04/01/2018 16:24	Stephen C Nolte	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 10:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 06:07	Jeremy C Giffin	212.22
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 10:50	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:25	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:50	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 22:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004B	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520229
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.029	51.02
10237	Ethylbenzene	100-41-4	N.D.	0.058	51.02
10237	Naphthalene	91-20-3	0.33	0.058	51.02
10237	Toluene	108-88-3	N.D.	0.058	51.02
10237	Xylene (Total)	1330-20-7	N.D.	0.058	51.02
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	87	4.5	198.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	56 J	4.6	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	40	11	1
02516	TPH Motor Oil C16-C36	n.a.	40	11	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	52 J	4.6	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	12.6	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-2-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520229
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	Q180881AA	03/29/2018 21:01	Stephen C Nolte	51.02
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:14	Anastasia K Jaynes	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18089B34A	03/31/2018 06:45	Jeremy C Giffin	198.41
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:14	Anastasia K Jaynes	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:05	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:07	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 22:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18086820001A	03/27/2018 12:09	Larry E Bevins	1

Sample Description: MW-2-S-12-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520230
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.033	56.43
10237	Ethylbenzene	100-41-4	N.D.	0.066	56.43
10237	Naphthalene	91-20-3	2.0 J	0.066	56.43
10237	Toluene	108-88-3	N.D.	0.066	56.43
10237	Xylene (Total)	1330-20-7	N.D.	0.066	56.43
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.					
GC Volatiles		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	510	19	827.81
GC Miscellaneous		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	140 J	4.6	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	140	12	1
02516	TPH Motor Oil C16-C36	n.a.	140	12	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	130 J	4.6	1
The holding time was not met. The client was notified and the data reported. The reverse surrogate, capric acid, is present at 1.0%.					
Wet Chemistry		SM 2540 G-1997	%	%	
%Moisture Calc					
00111	Moisture	n.a.	14.0	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-2-S-12-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520230
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	Q180881AA	03/30/2018 00:09	Stephen C Nolte	56.43
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 14:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 06:45	Jeremy C Giffin	827.81
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 14:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 04:45	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 21:28	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:12	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-2-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520231
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.76
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.76
10237	Naphthalene	91-20-3	N.D.	0.0009	0.76
10237	Toluene	108-88-3	N.D.	0.0009	0.76
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.76
GC Volatiles		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	18.09
GC Miscellaneous		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.6	1
The holding time was not met. The client was notified and the data reported.					
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
GC Petroleum Hydrocarbons w/Si		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.6	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.					
Wet Chemistry		SM 2540 G-1997	%	%	
%Moisture Calc					
00111	Moisture	n.a.	13.4	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-2-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-2

Chevron
ELLE Sample #: SW 9520231
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 14:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 19:10	Jennifer K Howe	0.76
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 14:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 14:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 01:41	Jeremy C Giffin	18.09
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 14:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/08/2018 23:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:06	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 23:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520232
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0008	1.34
10237	Ethylbenzene	100-41-4	N.D.	0.002	1.34
10237	Naphthalene	91-20-3	N.D.	0.002	1.34
10237	Toluene	108-88-3	N.D.	0.002	1.34
10237	Xylene (Total)	1330-20-7	N.D.	0.002	1.34
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	10	430.29
	Reporting limits were raised due to sample foaming.				
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	16.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-3-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520232
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180872AA	03/29/2018 01:04	Stephen C Nolte	1.34
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 08:00	Jeremy C Giffin	430.29
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 20:02	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 17:51	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520233
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 13:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.73
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.73
10237	Naphthalene	91-20-3	N.D.	0.0009	0.73
10237	Toluene	108-88-3	N.D.	0.0009	0.73
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.73
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.66
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.7	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D. UJ	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D. UJ	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.7	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	14.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520233
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/20/2018 13:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	A180872AA	03/29/2018 01:27	Stephen C Nolte	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 13:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 02:19	Jeremy C Giffin	20.66
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 13:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:04	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 18:15	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 18:11	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520234
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 15:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	0.002	0.0004	0.71
10237	Ethylbenzene	100-41-4	0.001	0.0008	0.71
10237	Naphthalene	91-20-3	0.015	0.0008	0.71
10237	Toluene	108-88-3	0.0009	0.0008	0.71
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.71
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.6	24.13
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	16.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-10-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520234
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 15:50

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 20:19	Jennifer K Howe	0.71
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 15:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 15:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18089B34A	03/31/2018 06:10	Jeremy C Giffin	24.13
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201808649321	03/27/2018 09:16	Anastasia K Jaynes	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:24	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 19:19	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 18:31	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-3-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520235
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 16:00

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.66
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.66
10237	Naphthalene	91-20-3	N.D.	0.0008	0.66
10237	Toluene	108-88-3	N.D.	0.0008	0.66
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.66
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.53
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.7	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
		SW-846 8015B modified	mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
		SW-846 8015B	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.7	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	14.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-3-S-15-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-3

Chevron
ELLE Sample #: SW 9520235
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 16:00

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 20:42	Jennifer K Howe	0.66
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 16:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 16:00	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 02:57	Jeremy C Giffin	20.53
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 16:00	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 00:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:27	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 19:32	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520236
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
	SW-846 8260B		mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Naphthalene	91-20-3	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92
GC Volatiles					
	SW-846 8015B modified		mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	22.44
GC Miscellaneous					
	SW-846 8015B		mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	4.6 J	4.2	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum Hydrocarbons					
	SW-846 8015B modified		mg/kg	mg/kg	
02516	Total TPH	n.a.	N.D.	10	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	10	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum Hydrocarbons w/Si					
	SW-846 8015B		mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.2	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
	SM 2540 G-1997		%	%	
	%Moisture Calc				
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-3-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520236
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:06	Jennifer K Howe	0.92
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 11:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 08:38	Jeremy C Giffin	22.44
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 11:30	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 19:41	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 19:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520237
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.91
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.91
10237	Naphthalene	91-20-3	N.D.	0.001	0.91
10237	Toluene	108-88-3	N.D.	0.001	0.91
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.91
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.41
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.3	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	11	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	11	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.3	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-5-180320 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520237
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/20/2018 11:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:29	Jennifer K Howe	0.91
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/20/2018 11:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 04:13	Jeremy C Giffin	23.41
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/20/2018 11:40	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 03:04	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 16:49	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:12	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-10-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520238
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 08:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.68
10237	Ethylbenzene	100-41-4	N.D.	0.0008	0.68
10237	Naphthalene	91-20-3	N.D.	0.0008	0.68
10237	Toluene	108-88-3	N.D.	0.0008	0.68
10237	Xylene (Total)	1330-20-7	N.D.	0.0008	0.68
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.4	17.66
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	16.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-10-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520238
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/21/2018 08:15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 21:52	Jennifer K Howe	0.68
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/21/2018 08:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 04:51	Jeremy C Giffin	17.66
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/21/2018 08:15	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 02:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 17:10	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:33	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18082820004A	03/24/2018 00:48	Scott W Freisher	1

Sample Description: MW-4-S-15-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520239
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 08:35

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0004	0.73
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.73
10237	Naphthalene	91-20-3	N.D.	0.0009	0.73
10237	Toluene	108-88-3	N.D.	0.0009	0.73
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.73
GC Volatiles					
		SW-846 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	20.39
GC Miscellaneous					
		SW-846 8015B	mg/kg	mg/kg	
10941	TPH-DRO soil C10-C28 microwave	n.a.	N.D. UJ	4.8	1
	The holding time was not met. The client was notified and the data reported.				
GC Petroleum					
		SW-846 8015B modified	mg/kg	mg/kg	
Hydrocarbons					
02516	Total TPH	n.a.	N.D.	12	1
02516	TPH Motor Oil C16-C36	n.a.	N.D.	12	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.				
GC Petroleum					
		SW-846 8015B	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D. UJ	4.8	1
	The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The client was notified and the data reported.				
Wet Chemistry					
		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	17.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-4-S-15-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA MW-4

Chevron
ELLE Sample #: SW 9520239
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submittal Date/Time: 03/23/2018 10:15

Collection Date/Time: 03/21/2018 08:35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/Naphthalene - Soil	SW-846 8260B	1	X180871AA	03/28/2018 22:15	Jennifer K Howe	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201808349313	03/21/2018 08:35	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201808349313	03/21/2018 08:35	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	18085A16A	03/27/2018 05:29	Jeremy C Giffin	20.39
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201808349313	03/21/2018 08:35	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	180950001A	04/09/2018 01:44	Thomas C Wildermuth	1
02516	TPH Fuels by GC (Soils)	SW-846 8015B modified	1	180890013A	04/02/2018 17:32	Timothy M Emrick	1
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	180950002A	04/12/2018 20:52	Thomas C Wildermuth	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	180950002A	04/05/2018 18:50	Sally L Appleyard	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	180950001A	04/05/2018 18:50	Sally L Appleyard	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	180890013A	03/30/2018 18:20	Sally L Appleyard	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-1-S-3-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-1

Chevron
ELLE Sample #: SW 9520240
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.004	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.005	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.006	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.007	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.005	0.004	1
10724	Chrysene	218-01-9	0.007	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.004	0.004	1
10724	Fluoranthene	206-44-0	0.005	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.005	0.004	1
10724	Naphthalene	91-20-3	N.D.	0.004	1
10724	Phenanthrene	85-01-8	N.D.	0.004	1
10724	Pyrene	129-00-0	0.006	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	6.4	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 07:20	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-1-S-8-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-1

Chevron
ELLE Sample #: SW 9520241
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	N.D.	0.004	1
10724	Benzo(a)pyrene	50-32-8	N.D.	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.004	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.004	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.004	0.004	1
10724	Chrysene	218-01-9	0.004	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	1
10724	Fluoranthene	206-44-0	N.D.	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	1
10724	Naphthalene	91-20-3	N.D.	0.004	1
10724	Phenanthrene	85-01-8	N.D.	0.004	1
10724	Pyrene	129-00-0	N.D.	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	10.8	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 07:44	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-2-S-3-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-2

Chevron
ELLE Sample #: SW 9520242
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:00

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.005	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.007	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.011	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.009	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.006	0.004	1
10724	Chrysene	218-01-9	0.011	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.005	0.004	1
10724	Fluoranthene	206-44-0	0.009	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.007	0.004	1
10724	Naphthalene	91-20-3	0.005	0.004	1
10724	Phenanthrene	85-01-8	0.011	0.004	1
10724	Pyrene	129-00-0	0.011	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	7.0	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 08:08	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

Sample Description: HA-2-S-8-180321 Grab Soil
Facility# 90955 BBLW
1200 Park St-Alameda NA HA-2

Chevron
ELLE Sample #: SW 9520243
ELLE Group #: 1922999
Matrix: Soil

Project Name: 90955

Submission Date/Time: 03/23/2018 10:15
Collection Date/Time: 03/21/2018 10:10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles		SW-846 8270C	mg/kg	mg/kg	
10724	Acenaphthene	83-32-9	N.D.	0.004	1
10724	Acenaphthylene	208-96-8	N.D.	0.004	1
10724	Anthracene	120-12-7	N.D.	0.004	1
10724	Benzo(a)anthracene	56-55-3	0.004	0.004	1
10724	Benzo(a)pyrene	50-32-8	0.005	0.004	1
10724	Benzo(b)fluoranthene	205-99-2	0.006	0.004	1
10724	Benzo(g,h,i)perylene	191-24-2	0.007	0.004	1
10724	Benzo(k)fluoranthene	207-08-9	0.005	0.004	1
10724	Chrysene	218-01-9	0.011	0.004	1
10724	Dibenz(a,h)anthracene	53-70-3	0.004	0.004	1
10724	Fluoranthene	206-44-0	0.006	0.004	1
10724	Fluorene	86-73-7	N.D.	0.004	1
10724	Indeno(1,2,3-cd)pyrene	193-39-5	0.004	0.004	1
10724	Naphthalene	91-20-3	0.016	0.004	1
10724	Phenanthrene	85-01-8	0.007	0.004	1
10724	Pyrene	129-00-0	0.007	0.004	1
Wet Chemistry		SM 2540 G-1997	%	%	
		%Moisture Calc			
00111	Moisture	n.a.	11.5	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10724	PAH's 8270C Soil	SW-846 8270C	1	18085SLB026	03/27/2018 08:32	Anthony P Bauer	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	18085SLB026	03/26/2018 17:00	Elizabeth E Donovan	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18085820005B	03/26/2018 23:15	Scott W Freisher	1

APPENDIX F

Historical Data from Previous Site Investigation



TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - METALS
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Sample Depth (feet bsg)	Area of Concern	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury EPA Method 7472A
EPA Method 6010B																			
Sample Date: April 17, 2016; results in milligrams per kilogram																			
B1-10'	10	Hoist	<2.0	<2.0	46	<0.40	<0.40	45	2.7	6.5	2.3	<2.0	30	<5.0	<2.0	<5.0	27	28	<0.013
B2-11.5'	11.5	Hoist	<2.0	<2.0	51	<0.40	<0.40	40	4.6	6.5	2.3	<2.0	34	<5.0	<2.0	<5.0	28	21	<0.013
B3-11'	11	Hoist	<2.0	<2.0	37	<0.40	<0.40	45	3.7	5.6	<2.0	<2.0	29	<5.0	<2.0	<5.0	33	15	<0.013
B4-10'	10	Waste Oil Tank	<2.0	<2.0	48	<0.40	<0.40	48	4.2	7.3	2.3	<2.0	36	<5.0	<2.0	<5.0	32	23	<0.013
B5-10'	10	Hoist	<2.0	<2.0	49	<0.40	<0.40	29	3.7	5.9	1.1	<2.0	31	<5.0	<2.0	<5.0	23	17	<0.013
B6-10.5'	10.5	Concrete Culvert	<2.0	<2.0	39	<0.40	<0.40	48	3.7	5.7	2.6	<2.0	29	<5.0	<2.0	<5.0	31	21	<0.013
B7-10'	10	Gas Station	NA	NA	NA	NA	<0.40	40	NA	NA	<2.0	NA	27	NA	NA	NA	NA	19	NA
B8-10'	10	Gas Station	NA	NA	NA	NA	<0.40	41	NA	NA	3.9	NA	32	NA	NA	NA	NA	21	NA
B9-10'	10	Gas Station	NA	NA	NA	NA	<0.40	45	NA	NA	3.4	NA	28	NA	NA	NA	NA	21	NA
B10-20'	10	Gas Station	<2.0	<2.0	51	<0.40	<0.40	58	1.7	7.1	5.1	<2.0	26	<5.0	<2.0	<5.0	23	23	<0.013
B11-20'	10	Gas Station	NA	NA	NA	NA	<0.40	37	NA	NA	2.5	NA	30	NA	NA	NA	NA	19	NA
B12-20'	10	Gas Station	<2.0	2.5	418	<0.40	<0.40	42	4.8	20	39	<2.0	44	<5.0	<2.0	<5.0	26	130	0.090
ESL (COMMERCIAL/INDUSTRIAL, SHALLOW, 510 FEET BSG)			470	0.31	220,000	2,200	580	1,800,000*	350	47,000	160	5,300	11,000	5,800	5,800	12	600,000	350,000	190
ESL (RESIDENTIAL, SHALLOW, 510 FEET BSG)			31	0.057	15,000	150	39	120,000*	23	3,100	80	390	800	800	390	390	140,000	23,000	13
ESL (ANY LAND USE/ANY DEPTH: CONSTRUCTION WORKER EXPOSURE)			340	0.99	67,000	180	110	530,000*	45	14,000	160	1,300	1,700	1,800	1,800	3.5	220,000	110,000	57

Notes
bsg = below surface grade
bold = detected concentration is above laboratory reporting limits
Shading = detected concentration is above one or more ESLs
ESLs = Environmental Screening Levels, SF Bay Region of the California Water Quality Control Board, February 2016

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - TPH AND VOCs
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Sample Depth (feet bgl)	Area of Concern	EPA Method 8260s														Other VOCs
			TPHg	TPHd	TPHm	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acetone	n-Propylbenzene	Isopropylbenzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	tert-Butylbenzene		Naphthalene
Sample Date: April 17, 2016; results in milligrams per kilogram																	
B1-10'	10	Hoist	<1.0	<1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B2-11.5'	11.5	Hoist	<1.0	<1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B3-11'	11	Hoist	<1.0	<1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B4-10'	10	Waste Oil Tank	<1.0	<1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B5-10'	10	Hoist	<1.0	<1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B6-10.5'	10.5	Concrete Culvert	<1.0	AJ 710	770	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B7-10'	10	Gas Station	<1.0	<1.0		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B8-10'	10	Gas Station	<1.0	<1.0		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B9-10'	10	Gas Station	76	AK 70	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B10-10'	10	Gas Station	AS 3,200	958	99	<1.0	<1.0	2.7	2.7	13	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B11-10'	10	Gas Station	<1.0	<1.0		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B12-10'	10	Gas Station	AS 17,000	AK 1,400	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
ESL (LEACHING TO GROUNDWATER)			770	570	51,000*	0.044	2.9	1.4	2.3	0.023	0.53	...	...	...	...	...	...
ESL (COMMERCIAL/INDUSTRIAL, SHALLOW, 510 FEET B55)			3,970	1,100	140,000	1.0	46,000	22	2,400	180	630,000	...	...	...	...	...	...
ESL (RESIDENTIAL, SHALLOW, 510 FEET B55)			740	230	11,000	0.23	970	5.1	560	42	59,070	...	...	...	...	...	...
ESL (ANY LAND USE/ANY DEPTH, CONSTRUCTION WORKER EXPOSURE)			7,470	3,800	37,000	2.4	28,000	480	65,000	3,700	320,000	...	...	...	...	...	...

Notes:
 bgl = below surface grade
 TPHg = total petroleum hydrocarbons as gasoline
 TPHd = total petroleum hydrocarbons as diesel
 TPHm = total petroleum hydrocarbons as motor oil
 VOCs = volatile organic compounds
 NA = not analyzed
 ND = these analyses include a variety of individual compounds. The "ND" designation indicates that individual compounds included in the analyses were not detected above laboratory reporting limits
 bold = detected concentration is above laboratory reporting limit
 Shading = detected concentration is above one or more ESLs
 ESLs = Environmental Screening Levels, 39 Bay Region of the California Water Quality Control Board, February 2016
 * = gross contamination levels (labouring to groundwater ESL not established)
 ... = screening level not established

TABLE 3
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - SVOCs and PCBs
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Sample Depth (feet bsg)	Area of Concern	EPA Method 8270C							Other SVOCs	PCBs EPA Method 8082
			Acenaphthene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene	Sample Date: April 17, 2016; results in milligrams per kilogram			
B1-10'	10	Hoist	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	ND	ND
B2-11.5'	11.5	Hoist	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	ND	ND
B3-11'	11	Hoist	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	ND	ND
B4-10'	10	Waste Oil Tank	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	ND	NA
B5-10'	10	Hoist	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	ND	ND
B6-10.5'	10.5	Concrete Cutoff	<0.020	<0.020	<0.020	0.030	<0.020	<0.020	<0.020	ND	NA
B7-10'	10	Gas Station	NA	NA	NA	NA	NA	NA	NA	NA	NA
B8-10'	10	Gas Station	NA	NA	NA	NA	NA	NA	NA	NA	NA
B9-10'	10	Gas Station	NA	NA	NA	NA	NA	NA	NA	NA	NA
B10-10'	10	Gas Station	0.060	1.9	0.15	0.084	<0.030	<0.030	<0.030	ND	NA
B11-10'	10	Gas Station	NA	NA	NA	NA	NA	NA	NA	NA	NA
B12-10'	10	Gas Station	<0.030	4.5	<0.030	<0.030	<0.030	<0.030	<0.030	ND	NA
ESL (LEACHING TO GROUNDWATER)			16	0.033	11	85	130	Various	Various	Various	Various
ESL (COMMERCIAL/INDUSTRIAL, SHALLOW, ≤10 FEET BSG)			45,000	14	---	23,000	0.29	Various	Various	Various	Various
ESL (RESIDENTIAL, SHALLOW, ≤10 FEET BSG)			3,600	3.3	---	1,800	0.016	Various	Various	Various	Various
ESL (ANY LAND USE/ANY DEPTH: CONSTRUCTION WORKER EXPOSURE)			10,000	350	---	5,000	1.6	Various	Various	Various	Various

Notes:
 bsg = below surface grade
 SVOCs = semi-volatile organic compounds
 PCBs = polychlorinated biphenyls
 NA = not analyzed
 ND = these analyses include a variety of individual compounds. The "ND" designation indicates that individual compounds included in the analyses were not detected above laboratory reporting limits
bold = detected concentration is above laboratory reporting limits
 Shading = detected concentration is above one or more ESLs
 ESLs = Environmental Screening Levels, SF Bay Region of the California Water Quality Control Board, February 2016

TABLE 4
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS - METALS
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Area of Concern	EPA Method 200.8																
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Sample Date: April 17, 2016; results in micrograms per liter																		
B-1 GW	Hoist	<1.0	<1.0	23	<1.0	4.3	<1.0	<2.0	<1.0	<0.20	2.0	11	<1.0	<1.0	<1.0	<1.0	1.9	<5.0
B-5 GW	Hoist	<1.0	<1.0	21	<1.0	3.7	<1.0	2.6	<1.0	<0.20	2.1	4.0	<1.0	<1.0	<1.0	<1.0	1.9	<5.0
B-6 GW	Concrete Cutoff	<1.0	<1.0	20	<1.0	<0.20	1.2	1.1	<2.0	<0.20	<1.0	6.8	<1.0	<1.0	<1.0	<1.0	1.7	<5.0
B-10 GW	Gas Station	<1.0	<1.0	27	<1.0	<0.20	1.1	1.4	<2.0	<0.20	6.6	5.2	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
B-11 GW	Gas Station	1.3	2.3	1,300	<1.0	<0.20	1.5	<1.0	<2.0	<0.20	17	4.0	<1.0	<1.0	<1.0	<1.0	2.5	<5.0
	Tier 1 ESL	6.0	10	1,000	2.7	50	3.0	3.1	2.5	0.05M	100	8.2	5.0	0.19	2.0	2.0	19	81
	MCL	6.0	10	1,000	4.0	5.0	---	1300	15	2	---	100	50	100*	2.0	---	5,000*	

Notes:
 bold = detected concentration is above laboratory reporting limits
 ESL = Environmental Screening Level; San Francisco Region, Regional Water Quality Control Board, February 2016
 MCL = Maximum Contaminant Level, California Department of Public Health, September 2013
 * = Secondary MCL (taste & odor or welfare based)
 --- = Screening level not established

TABLE 5
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS - TPH AND VOCs
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Area of Concern	EPA Method 8013B										EPA Method 8262B									
		TPH _g	TPHM	TPHno	Benzene	Toluene	Ethylbenzene	o-xylene	MTBE	Tetrachloroethene	Naphthalene	Isopropylbenzene	n-Propylbenzene	1,3,5-Trimethylbenzene	tert-butylbenzene	1,2,4-Trimethylbenzene	p-isopropyltoluene	Other VOCs			
Sample Dates: April 17, 2015; results in micrograms per liter																					
B-1 GW	Relif	<50	<50	<100	<0.50	<0.50	<0.50	<0.50	<1.0	3.9	<0.50	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	ND			
B-5 GW	Holt	<50	<54	<110	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	ND			
B-6 GW	Concrete Curb	<50	AJ 84,000	89,000	<0.50	<0.50	<0.50	<1.0	<1.0	<0.50	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	ND			
B-10 GW	Gas Station	21,000	24,000	AJ 1,500	<2.5	240	<2.5	<1.0	<1.0	<2.5	770	1,400	570	66	3,400	310	310	ND			
B-12 GW	Gas Station	3,600	11,000	16,000	5.6	83	1.3	<1.0	<1.0	6.81	39	76	4.2	4.5	16	6.6	6.6	ND			
	MCL	...	...	...	10	30	10*	5.0	5.0	5.0	...	...	...	...	...	...	...	Various
	Tier 1 ESL	100	100	54,000	10	40	10*	5.0	5.0	5.0	...	...	...	...	...	...	...	Various

NOTE:
 TPH_g = total petroleum hydrocarbons as gasoline
 TPH_M = total petroleum hydrocarbons as fuel oil
 TPH_{no} = total petroleum hydrocarbons as motor oil
 VOCs = volatile organic compounds
 ND = these analytes included a variety of individual compounds. The "ND" designation indicates that individual compounds included in the analytes were not detected above laboratory reporting limits
 bold = detected concentration is above Tier 1 ESL and/or MCL
 Sliding = detected concentration is above Tier 1 ESL and/or MCL
 ESL = Environmental Screening Level; San Francisco Region, Regional Water Quality Control Board, February 10/16.
 MCL = Maximum Contaminant Level, California Department of Public Health, September 2013.
 ... = screening level not established
 * = screening level for total xylenes

TABLE 6
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS - SVOCs
1200 PARK STREET, ALAMEDA, CALIFORNIA

Sample ID	Area of Concern	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Other SVOCs
Sample Date: April 17, 2016; results in micrograms per liter												
B-1 GW	Soil	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	ND
B-5 GW	Soil	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	ND
B-6 GW	Concrete Cutoff	0.386	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	ND
B-10 GW	Gas Station	480	3.0	<0.050	0.40	0.41	2.6	4.5	1.5	<0.050	0.096	ND
B-12 GW	Gas Station	67	<0.50	0.46	0.29	0.33	<0.050	1.5	1.5	0.10	0.29	ND
	MCL	0.17	530	---	18,000	800	290	---	1.20	0.034	---	Various
	Tier 1 ESL	0.17	70	30	0.73	8.0	3.9	4.5	2.0	0.034	0.10	Various

Notes:
SVOCs = semi-volatile organic compounds
ND = these analyses include a variety of individual compounds. The "ND" designation indicates that individual compounds included in the analyses were not detected above laboratory reporting limits
bold = detected concentration is above laboratory reporting limits
ESL = Environmental Screening Level for San Francisco Region, Regional Water Quality Control Board, February 2016
MCL = Maximum Contaminant Level, California Department of Public Health, September 2013
--- = screening level not established

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