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Mr. Erik Koppl
Copeland Park Properties, LLC
800 Airport Blvd., Suite 510,
Burlingame, California 94010

December 21, 2016

Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Soil, Groundwater, and Soil Vapor Investigation Report**
Tudor Hall Apartments
150 17th Street, Oakland, California
Fuel Leak Case No. RO0003165

Dear Mr. Nowell:

In regards to the above-referenced site and submittal, I am providing this letter to state the following:

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

If you have any questions or require additional information, please contact me at (650) 342-0002.

Sincerely,

Mr. Erik Koppl
Copeland Park Properties, LLC

cc: Mr. Bryan Campbell, PG, CHG, ATC Group Services LLC, 2400 Camino Diablo, Suite 360, San Ramon, CA 94583

ENVIRONMENTAL • GEOTECHNICAL
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2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Telephone 925-460-5300
Fax 925-328-1090
www.atcgroupservices.com

January 5, 2017

Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Soil, Groundwater, and Soil Vapor Investigation Report**
Tudor Hall Apartments
150 17th Street, Oakland, California
Fuel Leak Case No. RO0003165
ATC Project Number: 118BM01002

Dear Mr. Nowell:

On behalf of Copeland Park Properties, LLC (the "Client"), ATC Group Services LLC (ATC) has prepared this report to document field activities and findings for the Soil, Groundwater, and Soil Vapor Investigation for the above-referenced property. This report was prepared in response to a letter from the Alameda County Environmental Health Department (ACEH) dated August 24, 2016 (Attachment A).

SITE DESCRIPTION

The property is located on the northern corner of the intersection of Madison Street and 17th Street in Oakland, California. A multi-unit building is located on the property. The property is at an elevation of approximately 25 feet above mean sea level. The property slopes to the northeast.

BACKGROUND

In a letter from the ACEH dated May 26, 2016, which is a follow up letter to a previous letter from the ACEH dated June 22, 2015, a subsurface investigation was requested in the vicinity of an underground storage tank (UST) which was abandoned in place in order to characterize the petroleum hydrocarbon impacts to the subsurface.

In addition, in the letter dated June 22, 2015, the ACEH requested the submission of an initial Site Conceptual Model (SCM) and description of the conditions of the site as they relate to the State Water Resources Control Board Low Threat Underground Storage Tank Case Closure Policy (LTCP) in tabular format.

In response, a Data Gap Investigation Work Plan dated July 29, 2016 was submitted by ATC to the ACEH. The Data Gap Investigation Work Plan included a scope of work to characterize the petroleum hydrocarbon impacts to the subsurface around the UST. The Data Gap Investigation Work Plan included the SCM and a description of the conditions of the site as they relate to the LTCP in tabular format.

In a letter dated August 24, 2016, the ACEH approved the Data Gap Investigation Work Plan with modifications. A revised work plan was not requested as long as the modifications noted in the August 24, 2016 letter were implemented.

This report documents the implementation of the Data Gap Investigation Work Plan and includes an updated SCM and an updated description of the conditions of the site as they relate to the LTCP in tabular format.

SCOPE OF WORK

ATC was requested to perform a subsurface investigation in the vicinity of an underground storage tank (UST) which was abandoned in place in order to characterize the petroleum hydrocarbon impacts to the subsurface. This work was performed under the oversight of a licensed professional geologist.

Pre-Field Activities

Prior to initiating field activities, ATC prepared a site specific Health and Safety Plan (HASP) for the site. The HASP complied with Title 29 of the Code of Federal Regulations (CFR) Section 1920.120(j), the California General Industry Safety Order (GISO) and Title 8, California Code of Regulations (CCR) Section 5192. A copy of the HASP was on-site during all field activities.

Permits were obtained from Alameda County Public Works Agency (ACPWA) and the City of Oakland for this investigation (Attachment B).

The public underground utility locating service USA North was notified to identify public utilities in the work area. Private utility locating was conducted by GPRS of Oakland, California to identify underground utilities on the subject property.

Geophysical Survey

On November 21, 2016, a geophysical survey was conducted by GPRS of Oakland, California (Attachment C). The purpose of the survey was to locate utilities and to evaluate the presence and location of the UST. The geophysical survey was conducted using ground penetrating radar and an electromagnetic detector. The locations of any detected utilities were marked at the site. The survey did not specifically locate the UST.

The client should be aware of the inherent limitations of geophysical surveying methods and that above and underground utilities and other man-made or natural features (i.e. automobiles, debris piles, tree roots, reinforced concrete, certain soil conditions, etc), if in the area of the survey, may decrease the effectiveness of the survey. The client should be aware that the lack of a detection of a feature from a geophysical survey does not mean that the feature does not exist only that it was not detected.

Drilling and Soil Sampling Activities

Between November 21 and 23, 2016, five soil borings (B1 through B5) were advanced on the subject property (Figure 2). Hand digging to clear for potential undetected/unmarked utilities was performed for all borings to a depth of 8 feet bgs by Cascade Drilling of Richmond, California using a hand auger. The borings were advanced by Cascade Drilling using a direct-push drilling rig to depths between 32 and 36 feet bgs. The location and purpose of each boring are listed below:

- Boring B1 was advanced near to the UST. The location of the UST was not specifically identified during the geophysical survey and so the boring was placed south of the presumed location of the UST based on site surface features.
- Borings B2 and B3 were advanced in the presumed cross-gradient and up gradient locations, respectively, of the UST.
- Borings B4 and B5 were advanced in the presumed downgradient location and northeast of the tank.

The borings were advanced using approximately 2-inch outer diameter rods and samples were collected by advancing the rods with acetate sample liners. After each interval, the core was retrieved, core barrel disassembled, and the sample liner was removed and transferred to the onsite geologist. Down-hole equipment was decontaminated using a triple rinse system containing detergent.

The soil borings were logged using the Unified Soil Classification System. A photo ionization detector (PID) was used to screen soil samples in the field and the PID readings for each sample were included on the boring logs (Attachment D). Selected soil samples were sealed with Teflon tape and plastic end caps.

Groundwater Sampling Activities

During the investigation, groundwater was collected from the borings. Groundwater was collected from all borings using temporary PVC casing inserted into the borehole and collected using a peristaltic pump.

Soil Gas Sampling Activities

On November 23, 2016, soil gas sampling was conducted on the subject property (Figure 2). The sampling was conducted in accordance with the guidelines outlined in Advisory Active Soil Gas Investigations by the Department of Toxic Substances Control et al. dated July 2015. Borings V1 and V2 were advanced and temporary vapor wells were constructed by Cascade Drilling. The purpose of each boring is listed below:

- Borings V1 and V2 were advanced near to the onsite building and between the building and the presumed location of the UST for the collection of soil gas samples at a depth of 5 feet bgs.

The soil gas samples were collected at a depth of depth 5 feet bgs using a temporary soil gas well. The well is constructed of 0.25-inch diameter tubing connected to a probe type probe tip. The probe tip is placed in the middle of an annular filter pack composed of #2/12 Sand placed at 5 feet bgs. The probe is then sealed with a 1-foot layer of dry granular bentonite followed by hydrated granular bentonite to just below ground surface.

Sampling consisted of vacuum testing the connections and purging with the use of helium as a tracer compound and a shroud. An ambient air leak up to 5% was considered acceptable. If the concentration of the tracer compound in the purge sample is greater than or equal to 5% of the tracer compound concentration in the shroud, corrective action is necessary to either remedy the leak or relocate the probe prior to collecting a soil gas sample.

The samples were collected through a calibrated flow controller and into 1-liter summa canisters. Each canister was individually checked, tested and certified by the laboratory for air tightness and proper vacuum prior to shipping. Prior to sampling, a vacuum gauge was used to measure and record the initial summa canister vacuum pressure. Once sampling is conducted, each summa canister was sealed with a slight vacuum prior to sealing.

Boring Backfilling and Investigation Derived Waste

Following completion of sample collection and removal of tooling, the borings were backfilled with neat cement grout as required by the ACPWA and completed at the surface to match the surrounding conditions. Investigation derived waste consisting of soil was left onsite in one drum.

Laboratory Analysis

The soil and groundwater samples were labeled and placed into a cooler with ice following sampling. All samples were transferred under appropriate chain-of-custody documentation to McCampbell Analytical, Inc. of Pittsburg, California. Laboratory analytical documentation is provided in Attachment E.

Laboratory analysis of the soil and groundwater samples consisted of the following:

- Total Petroleum Hydrocarbons (TPH) multi-range (gasoline, diesel, and motor oil) by EPA Method 8015
- Benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, and methyl tertiary butyl ether (MTBE) by EPA Method 8260

Laboratory analysis of the soil gas samples will consist of the following:

- MTBE, BTEX, and naphthalene by TO-15
- Percent Oxygen by ASTM D-1945 or D-1946
- Carbon Dioxide, Methane, and Helium
- Naphthalene by TO-17

RESULTS

Geology and Hydrogeology

Sediment encountered in each of the borings generally consisted of silty sand to a depth of 4 feet bgs followed by a layer of poorly graded sand to depths between 14 and 19 feet. Below this are various layers of sand, silt, and clay in some or all of the borings to the maximum depth explored. Groundwater levels measured after drilling ranged from 19 to 22 feet bgs.

Analytical Results

The analytical results are provided in Tables 1 through 3. The samples were compared to the applicable Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016.

A concentration of 2.6 milligrams per kilogram (mg/kg) TPH-d was noted in boring B2 at 2 feet bgs and 7.1 mg/kg TPH-d was noted in boring B4 at a depth of 2 feet bgs. These concentrations are not above the ESL for TPH-d. No other impacts to soil above the laboratory detection limits were noted.

No impacts to groundwater above the laboratory detection limits were noted in groundwater samples from any of the borings.

A concentrations of 32 micrograms per meter cubed (µg/m^3) benzene was noted in the sample from boring V1 and a concentration of 30 µg/m^3 benzene was noted in the sample from boring V2. These concentrations are below the ESL for benzene in soil gas. The remaining BTEX constituents were also noted in samples from borings V1 and V2 at concentrations below their respective ESLs. MTBE and naphthalene were not detected in samples from either boring above the laboratory detection limits. Oxygen was noted at 7.9 percent and 11 percent in samples from probes V1 and V2. The LTCP defines the presence of a bioattenuation zone if oxygen is present at a concentration equal to or greater than 4 percent. The results from the current investigation do indicate the presence of a bioattenuation zone in the subsurface.

Updated SCM and LTCP Discussion

An updated SCM and an updated discussion of the site as it relates to the LTCP is provided in tabular format (Tables 4 and 5).

RECOMMENDATIONS

Based on the lack of impacts discovered during this investigation above the ESLs in soil, groundwater, and soil gas, ATC does not recommend any further investigation for this site. Based on the SCM and discussion of the site as it relates to the LTCP as provided in Tables 4 and 5, case closure under the LTCP is requested.

LIMITATIONS AND RELIANCE

This report was prepared in accordance with the scope of work outlined in ATC's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of the Client for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to ATC. To the extent this report is based on information provided to ATC by third parties, ATC may have made efforts to verify this third party information, but ATC cannot guarantee the completeness or accuracy of this third party information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by ATC.

ATC appreciates the opportunity to assist the Client on this project. If you have any questions or require additional information, please contact us at (925) 460-5300.

Respectfully submitted,
ATC Group Services LLC

Colin Klinesteker, PG
Project Geologist

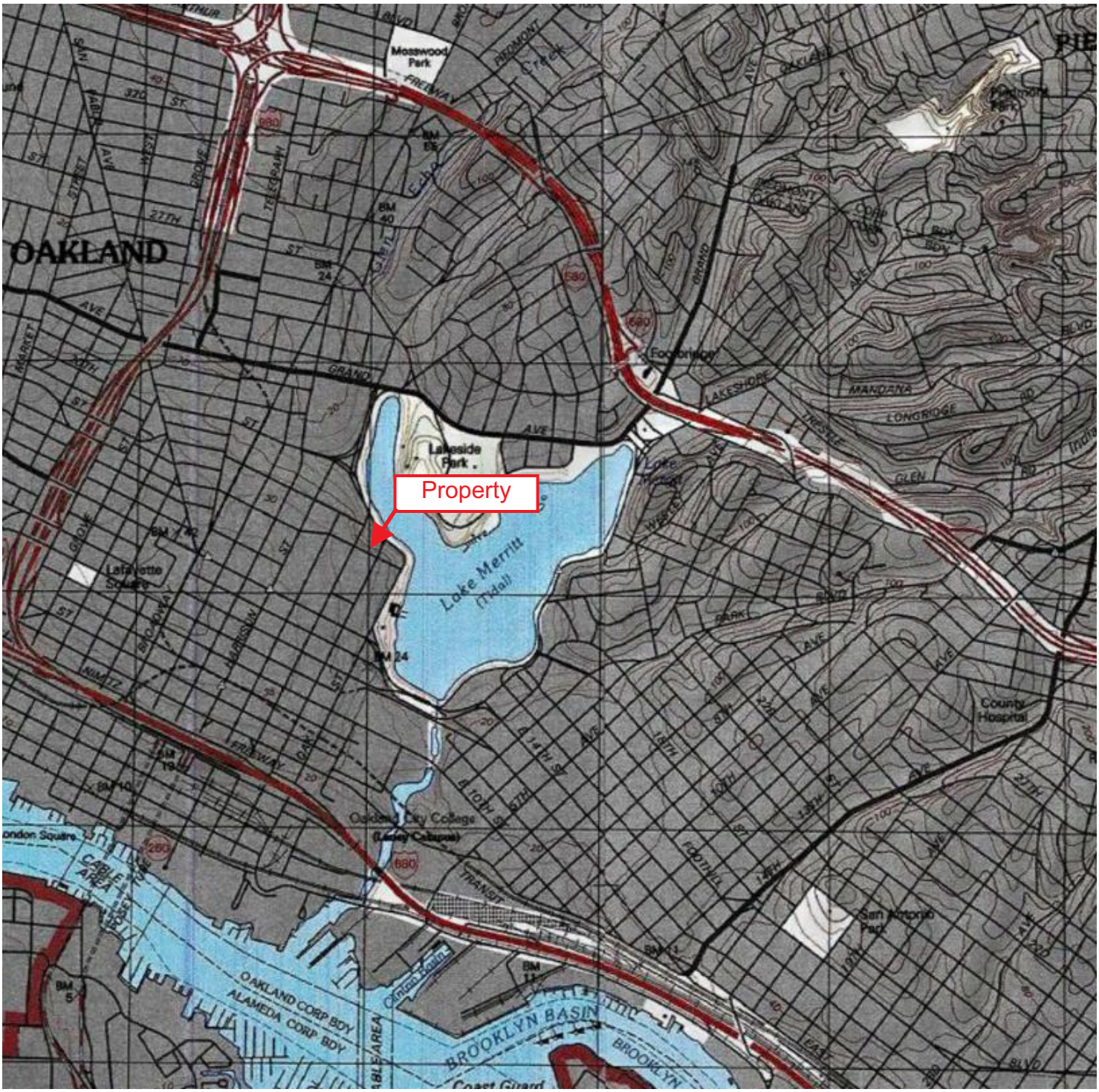
Bryan Campbell, PG, CHG
Branch Manager

PROFESSIONAL GEOLOGIST
BRYAN CAMPBELL
No. 975
CERTIFIED
HYDROGEOLOGIST
Exp. 2/28/2018
STATE OF CALIFORNIA
1/5/2017

Attachments:

Figure 1	Site Location Map
Figure 2	Site Map
Table 1	Summary of Soil Sample Analytical Results
Table 2	Summary of Groundwater Sample Analytical Results
Table 3	Summary of Soil Gas Sample Analytical Results
Table 4	Site Conceptual Model
Table 5	Data Gaps and LTCP Discussion
Attachment A	Agency Correspondence
Attachment B	Permits
Attachment C	Geophysical Survey Report
Attachment D	Boring Logs
Attachment E	Laboratory Analytical Reports

FIGURES



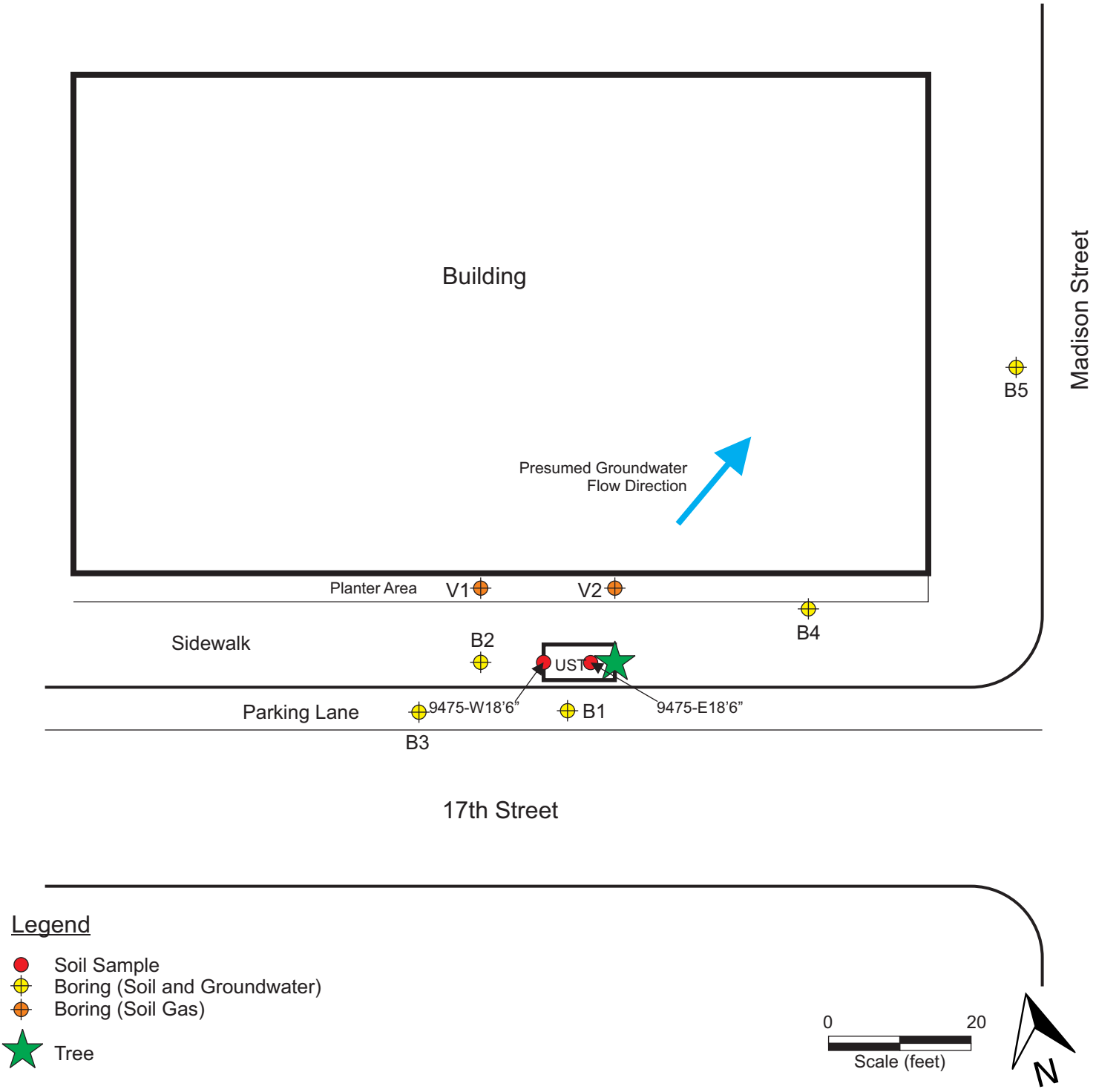
2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO.

DESIGNED BY:	SCALE:1"=2,000'	REVIEWED BY:
DRAWN BY:	DATE:	FILE:

SITE LOCATION MAP

150 17th Street
Oakland, California



2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

SITE MAP

150 17th Street
Oakland, California

PROJECT NO.		
DESIGNED BY:	SCALE:1"=20'	REVIEWED BY:
DRAWN BY:	DATE:	FILE:

TABLES

Table 1
Summary of Soil Analytical Results
150 17th Street, Oakland, California

Boring	Date	Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Naphthalene (mg/kg)
B1	11/22/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1	11/22/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1	11/22/2016	18	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	11/22/2016	2	ND	2.6	ND	ND	ND	ND	ND	ND	ND
B2	11/22/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	11/21/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	11/21/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	11/23/2016	2	ND	7.1	ND	ND	ND	ND	ND	ND	ND
B4	11/23/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	11/22/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	11/22/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND
ESL			100	230	5,100	0.044	2.9	1.4	2.3	0.023	0.023

Notes:

mg/kg	Milligrams per Kilogram
bgs	Below Ground Surface
ND	Not Detected
TPH-g	Total Petroleum Hydrocarbons as Gasoline
TPH-d	Total Petroleum Hydrocarbons as Gasoline
TPH-mo	Total Petroleum Hydrocarbons as Gasoline
MTBE	Methyl Tertiary Butyl Ether
Bold	Result Exceeds Screening Level
ESL	Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016

Table 2
Summary of Groundwater Analytical Results
150 17th Street, Oakland, California

Boring	Date	Depth (feet bgs)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)
B1	11/22/2016	20.65	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	11/22/2016	21.50	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	11/21/2016	22.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	11/23/2016	22.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	11/22/2016	19.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
ESL			100	100	50,000	1.0	40	13	20	5.0	0.12

Notes:

µg/L	Micrograms per Liter
bgs	Below Ground Surface
ND	Not Detected
TPH-g	Total Petroleum Hydrocarbons as Gasoline
TPH-d	Total Petroleum Hydrocarbons as Gasoline
TPH-mo	Total Petroleum Hydrocarbons as Gasoline
MTBE	Methyl Tertiary Butyl Ether
Bold	Result Exceeds Screening Level
ESL	Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016

Table 3
Summary of Soil Gas Analytical Results
150 17th Street, Oakland, California

Boring	Date	Depth (feet bgs)	Benzene (µg/m^3)	Toluene (µg/m^3)	Ethylbenzene (µg/m^3)	Xylenes (µg/m^3)	MTBE (µg/m^3)	Naphthalene (µg/m^3)	Oxygen (Percent)	Helium (Percent)	Carbon Dioxide (µL/L)	Methane (µL/L)
V1	11/23/2016	5	32	69	20	43	ND	ND	7.9	ND	30,000	260
V2	11/23/2016	5	30	60	7.6	25	ND	ND	11	0.051	5,700	11
ESL			48	160,000	560	52,000	5,400	41	--	--	--	--

Notes:

µg/m^3	Micrograms per Liter
µL/L	Microliters per Liter
bgs	Below Ground Surface
ND	Not Detected
TPH-g	Total Petroleum Hydrocarbons as Gasoline
TPH-d	Total Petroleum Hydrocarbons as Gasoline
TPH-mo	Total Petroleum Hydrocarbons as Gasoline
MTBE	Methyl Tertiary Butyl Ether
Bold	Result Exceeds Screening Level
ESL	Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016

Table 4
Site Conceptual Model
150 17th Street, Oakland, California

SCM Element	SCM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	According to the State of California Department of Water Resources, California's Groundwater Bulletin 118, dated February 27, 2004, the site is located along the eastern margin of the San Francisco Bay within the Coast Range Geomorphic Province and is characterized by broad alluvial fan margins slopping westward towards the San Francisco Bay. The site is underlain by Holocene and Pleistocene alluvial fan deposits and underlain by the Franciscan Formation bedrock at depth. The site is located in the East Bay Plain Subbasin of the Santa Clara Groundwater Basin. The cumulative aquifer thickness in the vicinity is approximately 1,000 feet, consisting of unconsolidated sediments.	None	None
	Site	According to the Underground Storage Tank and Abandonment Report dated May 7, 2015 by Golden Gate Tank Removal (GGTR), the overburden soil removed above the tank consisted predominantly of clay. During the November 2016 investigation, sediment encountered in each of the borings generally consisted of silty sand to a depth of 4 feet bgs followed by a layer of poorly graded sand to depths between 14 and 19 feet. Below this are various layers of sand, silt, and clay in some or all of the borings to the maximum depth explored. Groundwater levels measured after drilling ranged from 19 to 22 feet bgs. Groundwater is expected to flow to the northeast and towards Lake Merritt which is located approximately 330 feet from the property.	None	None
Surface Water Bodies		The nearest known water body is Lake Merritt which is located approximately 330 feet to the east of the property.	None	None
Nearby Wells		The State Water Resources Control Board's GeoTracker GAMA website includes information regarding the approximate locations of water supply wells in California. In the vicinity of the site, the closest water supply well presented on this website is depicted approximately 1,500 feet to the northwest of the site. No other wells are located within 2,000 feet of the site according to the GeoTracker GAMA website. Although no formal well or sensitive receptor survey has been conducted for the site; during the November 2016 investigation, impacts to groundwater above the laboratory detection limits were not noted in groundwater samples from any of the borings.	None	None
Release History		Between November 2014 and March 2015, one 1,500-gallon underground storage tank containing heating oil was abandoned in place in the sidewalk along 17th Street as detailed in the report by GGTR. The tank measured approximately 10 feet by 5 feet and was constructed of single wall steel. The bottom of the tank was reported at 16.5 feet bgs. The fill port was located at the west end of the tank. The age of the tank is reportedly unknown. During the tank abandonment, the tank was found to be in poor condition with visible holes. Soil discoloration or hydrocarbon odors were observed in the tank overburden soil and in the soil underlying the tank. The overburden soil consisted predominantly of clay. No groundwater was encountered in the excavation. Due to the presence of utility lines and a large tree directly above the tank, the removal of the tank was reportedly not possible. Two discrete soil samples were collected from the east and west ends of the tank at approximately 18.5 feet below ground surface; samples 9475-E18'6" and 9475-W18'6", respectively. One composite sample was collected from the overburden; sample 9475-SP. The results indicated: 13,800 mg/kg TPH (C10-C28) and 1.75 mg/kg xylenes in sample 9475-E18'6"; 12,600 mg/kg TPH (C10-C28) and 1.71 mg/kg xylenes in sample 9475-W18'6"; and 297 mg/kg TPH (C10-C28) in sample 9475-SP. The tank was filled in place by completely filling the tank with concrete slurry. The excavation was backfilled with clean import fill material and the stockpile was removed and disposed by the Owner although no manifest was provided in the report by GGTR.	None	None
Subsurface Impacts November 2016 Investigation	Soil	A concentration of 2.6 mg/kg TPH-d was noted in boring B2 at 2 feet bgs and 7.1 mg/kg TPH-d was noted in boring B4 at a depth of 2 feet bgs. These concentrations are not above the ESL for TPH-d. No other impacts to soil above the laboratory detection limits were noted.	None	None
	Groundwater	No impacts to groundwater above the laboratory detection limits were noted in groundwater samples from any of the borings.	None	None
	Soil Gas	A concentration of 32 µg/m^3 benzene was noted in the sample from boring V1 and a concentration of 30 µg/m^3 benzene was noted in the sample from boring V2. These concentrations are below the ESL for benzene in soil gas. The remaining BTEX constituents were also noted in samples from borings V1 and V2 at concentrations below their respective ESLs. MTBE and naphthalene were not detected in samples from either boring above the laboratory detection limits.	None	None

mg/kg	milligrams per kilogram
µg/m^3	micrograms per cubic meter
TPH	Total Petroleum Hydrocarbons
SCM	Site Conceptual Model
bgs	below ground surface
ESL	Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016

Table 5
Data Gaps and LTCP Discussion
150 17th Street, Oakland, California

Item	LTCP Element	Data Gap*	November 2016 Investigation	LTCP Discussion
1	General Criteria section d. Free product has been removed to the maximum extent practicable. General Criteria section e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed. General Criteria section f. Secondary source has been removed to the extent practicable.	Site visit documentation reports visible oil in the tank pit. No documentation has been provided to the ACEH evaluating free product removal. Therefore at this time, it is unclear to ACEH that free product has been removed to the maximum extent practicable. The SCM is inadequate as soil contamination and potential impacts to groundwater have not been adequately addressed, and sensitive receptors have not been identified. ACEH considers the SCM a living document and considers the document incomplete until the site has been shown to meet closure criteria. As the tank was abandoned in-place, it is unclear to ACEH if secondary source may be present beneath the tank.	Free product was not identified in either the soil or groundwater samples including those collected from boring B1 which was located near to the tank. As such, free product does not appear to be present.	Since free product does not appear to be present, the removal or abatement of free product is not warranted. The SCM was updated with the November 2016 investigation results and is presented in Table 4. "Secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Based on the results of the November 2016 investigation, a secondary source does not appear to exist.
2	Media Specific Criterial for Groundwater	Impacts to groundwater have not been evaluated at this site. Therefore, no plume length determination or stability evaluation, if warranted, can be performed.	The November 2016 investigation involved the advancement of soil borings (B1 through B5) for the collection and analysis of groundwater samples. The borings were placed near to and around the tank in the presumed up- and downgradient directions. No impacts to groundwater above the laboratory detection limits were noted in groundwater samples from any of the borings.	Given the lack of a contaminant plume, the lack of free product, and the fact that the nearest known water body is Lake Merritt which is located approximately 330 feet from the property, Groundwater Specific Criteria (1) of the LTCP is satisfied.
3	Media Specific Criterial for Vapor Intrusion to Indoor Air	The distribution of TPH in soil within the proximity of the foundation has not been evaluated. Oxygen data and soil gas sampling has not been conducted. Therefore, no vapor intrusion to indoor air determination, if warranted, can be performed.	The November 2016 investigation included the collection and analysis of soil gas from two locations (V1 and V2). BTEX constituents were noted in samples from borings V1 and V2 at concentrations below their respective ESLs. MTBE and naphthalene were not detected in samples from either boring above the laboratory detection limits. Oxygen was noted at 7.9 percent and 11 percent in samples from probes V1 and V2. The LTCP defines the presence of a bioattenuation zone if oxygen is present at a concentration equal to or greater than 4 percent. The results from the current investigation do indicate the presence of a bioattenuation zone in the subsurface.	The Low-Threat Vapor Intrusion criteria for Scenario 4 is satisfied. The benzene, ethylbenzene, and naphthalene concentrations noted during the November 2016 investigation are below their respective commercial soil gas concentrations with a bioattenuation zone as outlined in Scenario 4 of the LTCP.
4	Media Specific Criterial for Direct Contact	It is unclear to ACEH that the distribution of TPH and fuel components in soil in the subsurface has been adequately characterized in relation to the LTCP. Therefore, direct contact exposure determination, if warranted, can not be performed.	During the November 2016 investigation, soil samples were collected and analyzed from both the 0 to 5 feet bgs and 5 to 10 feet bgs intervals in each boring. Benzene, ethylbenzene, and naphthalene were not detected in any soil samples above the laboratory detection limit.	Based on the results of the November 2016 investigation, the criteria for direct contact is considered low-threat.

Notes:

LTCP	State Water Resources Control Board Low Threat Underground Storage Tank Case Closure Policy
TPH	Total Petroleum Hydrocarbons
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
MTBE	Methyl tertiary butyl ether
SCM	Site Conceptual Model
bgs	below ground surface
*	Data gaps were noted in the letter in the Alameda County Environmental Health Department (ACEH) dated June 22, 2015.
ESL	Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board dated February 2016

Attachment A
Agency Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

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

August 24, 2016

Tudor Hall Apartments, LP
800 Airport Boulevard, #510
Burlingame, CA 94010
Attention: Erik Koppl
(*Sent via electronic mail to erik@copelandparkproperties.com*)

Subject: Conditional Work Plan Approval; Fuel Leak Case No. RO0003165 and GeoTracker Global ID T10000007042, Tudor Hall Apartments, 150 17th Street, Oakland, CA 94612

Dear Mr. Koppl:

Thank you for claiming your site and for the preparation and submittal of the work plan to investigate the extent of residual contamination present at the subject site. The residual contamination was encountered during the March 16, 2015 in-place closure of a 1,500-gallon heating oil underground storage tank (UST) which formerly serviced the property. At the time of the closure, a determination was made that the UST experienced an unauthorized release, and the case was transferred to the Local Oversight Program (LOP) managed by Alameda County Department of Environmental Health (ACDEH). ACDEH requested preparation of a work plan to investigate the release in our letter dated June 22, 2015.

ACDEH has reviewed the recently submitted work plan entitled *Data Gap Investigation Work Plan* (Work Plan) dated July 29, 2016 and prepared by ATC Group Services LLC (ATC) for the subject site. ATC proposes to advance five (5) soil bores for the collection of soil and grab-groundwater (GGW) samples. The bore holes will be advanced to a maximum depth of 30 feet below ground surface (bgs) or to five feet below first encountered groundwater, whichever is shallower. It is anticipated that one soil and one GGW sample from each bore hole will be submitted for laboratory analysis. The proposed analyses of soil and GGW samples are total petroleum hydrocarbons (TPH) as diesel (TPHd) by EPA test method 8015, and benzene, toluene, ethylbenzene, xylenes (collectively BTEX), methyl tertiary butyl ether (MTBE), and naphthalene by EPA test method 8260.

In addition to collecting soil and GGW samples, ATC proposes to advance two (2) soil bores to a depth of five (5) feet bgs for the collection of soil gas samples. Soil gas sampling will be conducted in accordance with the July 2015 *Advisory- Active Soil Gas Investigations* prepared by Department of Toxic Substances Control (DTSC guidance) with helium used as the tracer compound for leak detection. The proposed analyses of soil gas samples are BTEX, MTBE, and naphthalene by EPA test method TO-15 and percent oxygen by ASTM test method D-1945 or D-1946.

The proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation.

Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

TECHNICAL COMMENTS

1. **List of Landowners Form –** In letters dated June 22, 2015 and May 5, 2016**,** ACDEH requested the completion and submittal of the List of Landowners Form. To date ACDEH has not received the form. Please complete the form and provide it as an electronic mail attachment, Attention: Keith Nowell, by the date provided below.

2. **Unauthorized Release Form –** In our letters of June 22, 2015 and May 5, 2016**,** we requested the completion and submittal of the Unauthorized Release Form (URF). To date ACDEH has not received the URF. Please complete the form and provide it as an electronic mail attachment, Attention: Keith Nowell, by the date provided below.

3. **Soil Sampling –** ACDEH requested preparation of the Work Plan after a review of the case file in conjunction with the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). In order to address the LTCP Media Specific criteria for Petroleum Vapor Intrusion to Indoor Air and Direct Contact and Outdoor Air Exposure, ACDEH requests soil samples be collected and analyzed from within the 0- to -5-foot and 5- to 10-foot bgs intervals. Additionally, please recover soil samples for analysis from areas of obvious contamination, the soil/groundwater interface, and at significant changes in lithology. If staining, odor, or elevated photoionization detector (PID) readings are observed over an interval of several feet, a sufficient number of soil samples from this interval should be submitted for laboratory analyses to characterize the fuel hydrocarbon concentrations within this interval. If groundwater is not encountered within the 30 feet of the ground surface, an additional soil sample should be collected and analyzed from the bottom of the soil bore to evaluate if groundwater may be impacted. Please ensure that the analytical results define the vertical and horizontal extent of TPH impacts at the site.

4. **Soil and Grab-Groundwater Analysis –** ACDEH requests the following modification be made to the scope of analysis proposed in the Work Plan: carbon range analysis to identify the TPH present.

5. **Soil Vapor Sample Analysis –** ACDEH requests the following analyses be added to the scope proposed in the Work Plan: carbon dioxide, methane, and the leak detection tracer gas (helium is proposed). Additionally, please run an additional naphthalene analysis for confirmation using EPA test method TO-17 per the DTSC guidance.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH ftp site (Attention: Keith Nowell), and to the SWRCB Geotracker website, in accordance with the following specified file naming convention by the date specified below:

- **September 23, 2016** – **List of Landowners Form** (file to be named RO0003165_LNDOWNR_F_yyyy-mm-dd) (provided by electronic mail Attn. Keith Nowell)

- **September 23, 2016** – **Unauthorized Release Form** (file to be named RO0003165_URF_R_yyyy-mm-dd) (provided by electronic mail Attn. Keith Nowell)

- **November 29, 2016 – Soil, Groundwater, and Soil Vapor Investigation** (file to be named: RO0003165_SWI_R_yyyy-mm-dd)

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

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

Sincerely,

Keith Nowell
Hazardous Materials Specialist

Enclosure: Attachment 1- Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: Bryan Campbell, ATC Group Services LLC, 2400 Camino Diablo, Suite 360, San Ramon, CA 94583 (*Sent via electronic mail to: bryan.campbell@atcassociates.com*)

Dilan Roe, ACEH (*Sent via electronic mail to: dilan.roe@acgov.org*)
Keith Nowell, ACEH (*Sent via electronic mail to*: *keith.nowell@acgov.org*)
GeoTracker / File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

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

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

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

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

REQUIREMENTS

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

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

Submission Instructions

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

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

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

Attachment B
Permits

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 11/16/2016 By jamesy

Permit Numbers: W2016-0815 to W2016-0816
Permits Valid from 11/21/2016 to 11/23/2016

Application Id: 1477935810959 **City of Project Site:** Oakland
Site Location: 150 17th Street
Project Start Date: 11/21/2016 **Completion Date:** 11/23/2016
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org

Applicant:	ATC Group Services LLC - Bryan Campbell 2400 Camino Ramon, Suite 360, San Ramon, CA 94583	**Phone:** 925-460-5300
Property Owner:	Eric Koppl 800 Airport Boulevard, Suite 510, Burlingame, CA 94010	**Phone:** 650-342-0002
Client:	Bryan Campbell 2400 Camino Ramon, Suite 360, San Ramon, CA 94583	**Phone:** 925-460-5300
Contact:	Bryan Campbell	**Phone:** 925-804-2858 **Cell:** 925-250-5256

Total Due: $530.00
Receipt Number: WR2016-0565 **Total Amount Paid:** $530.00
Payer Name : Colin Klinesteker Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes
Driller: Cascade Drilling - Lic #: 938110 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0815	11/16/2016	02/19/2017	5	0.75 in.	30.00 ft

Specific Work Permit Conditions

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

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

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

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

5. 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.

6. 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.

7. 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.

8. 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.

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.

Borehole(s) for Investigation-Vapor Sampling 24 to 48 hours only - 2 Boreholes
Driller: Cascade Drilling - Lic #: 938110 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0816	11/16/2016	02/19/2017	2	0.75 in.	30.00 ft

Specific Work Permit Conditions

1. 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.

2. 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.

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 or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

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

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.

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

11. Vapor monitoring wells constructed with tubing shall be decomissioned by complete removal of tubing, grout seal, and fill material of sand or bentonite. Fill material may be removed by hand auger if material can be removed completely.

Vapor monitoring wells constructed with pvc pipe less than 2" shall be overdrilled to total depth.

Vapor monitoring wells constructed with 2" pvc pipe or larger may be grouted by tremie pipe (any depth) or pressure grouted (less than 30', 25 psi for 5 min).

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration of final.

JOB SITE

SL and X permits valid 90 days
CGS permit valid 30 days

CHECK REVERSE

CITY OF OAKLAND

DEPARTMENT OF PUBLIC WORKS 4th FLOOR

250 FRANK H. OGAWA PLAZA • 2ND FLOOR • OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

To schedule inspection
Email: pwa_inspections@oaklandnet.com or call 510-238-3651

PH: 510-238-3891
FAX: 510-238-2263
TDD: 510-238-3254

Permit No: X1602538 OPW - Excavation **Filed Date:** 11/21/2016

Job Site: 150 17TH ST

Schedule Inspection by calling: 510-238-3444

Parcel No: 008 063300601

District:

For SL; X; and CGS permits see **SPECIAL NOTE** below

Project Description: Excavation 3 Soil Borings: RELATE TO OB PERMIT
Soil boring(s) on 3. Impact on traffic lane or sidewalk allowed per TSD# 16-0229. Ensure that environmental controls are in place to prevent dust/debris/waste water from contaminating environment.
If working within 25' feet of a monument you must comply with State Law 8771, contact the Inspector prior to starting excavation: minimum $5,800.00 fine for non-compliance.
Comply with all terms of City of Oakland Public Works Standards, Street Excavation Rules, Revised March 2015 and City Council Ordinance No. 13300 C.M.S. Five day prior notice required for work lasting five days or less in business/commercial districts; 72 hour notice in residential districts. Ten day prior notice required for work lasting six days or more in all districts.
Call PWA INSPECTION prior to start: 510-238-3651. email PWA_inspections@oaklandnet.com.
Contact:

Related Permits: OB1601290

ADDRESS

	Name	Applicant	Address	Phone	License #
Owner:	TUDOR HALL APARTMENTS LP		800 AIRPORT BLVD BURLINGAME, CA		
Contractor:	CASCADE DRILLING L P	X	P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	
Contractor:	CASCADE DRILLING L P		P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	938110

PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA

General Information

Excavation Type: Private Party
Special Paving Detail Required:
Tree Removal Involved:
Date Street Last Resurfaced:
Holiday Restriction (Nov 1 - Jan 1):
Worker's Compensation Company Name:
Limited Operation Area (7AM-9AM) And (4PM-6PM):
Worker's Compensation Policy #:

Key Dates

Approximate Start Date:
Approximate End Date:

APPLICATION

TOTAL FEES TO BE PAID AT FILING: $800.61

Application Fee	$70.00	Excavation - Private Party Type	$321.36	Records Management Fee	$37.18
Technology Enhancement Fee	$20.55	Transportation Service	$351.52		

Plans Checked By _____ Date _____ Permit Issued By _____ Date 11-21-16

Finalized By _____ Date _____

SPECIAL NOTE

- SL; X; and CGS permits: prior to start, email pwa_inspections@oaklandnet.com or call 510-238-3651
- SL and X permits valid 90 days; CGS permit valid 30 days

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

JOB SITE

SL and X permits valid 90 days
CGS permit valid 30 days

CHECK REVERSE

CITY OF OAKLAND

DEPARTMENT OF PUBLIC WORKS 4th FLOOR

250 FRANK H. OGAWA PLAZA • 2ND FLOOR • OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

PH: 510-238-3651
FAX: 510-238-7857
TDD: 510-238-3254

To schedule inspection
Email: pwa_inspections@oaklandnet.com or call 510-238-3651

Permit No: OB1601373 Obstruction **Filed Date:** 11/21/2016

Job Site: 150 17TH ST **Schedule Inspection by calling:** 510-238-3444

Parcel No: 008 063300601

District:

For SL; X; and CGS permits see **SPECIAL NOTE** below

Project Description: NON-METERED PARKING ONLY:
Reserve a NON-METERED parking space(s) in front of parcel only for dumpster, construction vehicle, moving van or storage pod. Post No-parking signs 72 hours prior in residential areas. Impact on traffic lane or sidewalk allowed per TSD #16-0229. No-parking signs are picked up by applicant after payment, 4TH FLOOR. To Have Illegally Parked Vehicle Ticketed Call 510-777-3333. Applicant arranges towing. Comply with terms set forth in CVC Section 22651 (m). For Towed Vehicle: Call 510-238-3021.
Contact:

Related Permits: X1602538

	Name	Applicant	Address	Phone	License #
Owner:	TUDOR HALL APARTMENTS LP		800 AIRPORT BLVD BURLINGAME, CA		
Contractor:	CASCADE DRILLING L P	X	P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	
Contractor:	CASCADE DRILLING L P		P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	938110

ADDRESS

PERMIT DETAILS: Building/Public Use/Activity/Obstructions

Work Information

Start Date: 11/21/2016
End Date: 11/23/2016

Obstruction Permit Type: Short Term (Max 14 Days)
Number of Meters (Metered Area):
Length Of Obstruction (Unmetered Area): 25

TOTAL FEES TO BE PAID AT FILING: $138.85

Application Fee	$70.00	Records Management Fee	$11.50	Short Term Permits	$51.00
Technology Enhancement Fee	$6.35				

Plans Checked By _____ Date _____ Permit Issued By RB Date 11-21-16

Finalized By _____ Date _____

APPLICATION

SPECIAL NOTE

- SL; X; and CGS permits: prior to start, email pwa_inspections@oaklandnet.com or call 510-238-3651
- SL and X permits valid 90 days; CGS permit valid 30 days

Attachment C
Geophysical Survey Report

Customer ATC Group Services **Job Date :** **21-Nov-16**

Billing Address	City	State	Zip
915 Highland Pointe Dr	Roseville	CA	95678

Job Details

Jobsite Location	150 17th Street
City	Oakland
State	CA

WA Number	11804
Job Num	
PO Num	

Lead Technician PANEDA, JEFFREY **Phone** 209-513-3861 **Email** jeffrey.paneda@gp-radar.com

Thank you for using Ground Penetrating Radar Systems on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS technician on this project.

The following equipment was used on this project:

- 400 MHz GPR antenna. Typically capable of detecting objects several feet deep. Maximum effective depth depends on site and soil conditions.
- At this site, the maximum effective depth of the GPR was 4'
- RD 7000/8000 Radio Frequency detector. Detects electromagnetic fields. Used to actively trace metallic pipes and tracer wires, or passively detect electric,communications and other lines.

Ground Penetrating Radar Systems performed the following work on this project:

Scanning the specified area to locate underground utilities and other significant anomalies. A tracer signal was sent along any accessible metallic utility or tracer wire, and the area was scanned with GPR to locate any additional targets. The locations of any detected utilities and anomalies were marked directly at the site with paint, flags, stakes, or other appropriate means, and results were reviewed with onsite personnel.

- Located gas, comms, power (on the side with one boring location), and a few unknowns. Markings in pink paint. Give 1' cushion on each side.

  Did not locate water, sewer, and unable to find the oil heater tank that was assumed to be in the curb.

  Cleared all 7 borings. One boring was difficult as the truck was parked over it. Obstructions present that interfered with full scans. This was communicated to client.

Pictures

TERMS & CONDITIONS

http://www.gp-radar.com/termsandconditions.html

Contact Name	Contact Phone	Contact Email
Colin Klinesteker	**5308400212**	**Colin.klinesteker@atcassociates.com**

Attachment D
Boring Logs

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

ATC Group Services
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

BORING NUMBER B1

CLIENT Copeland Park Properties
PROJECT NAME
PROJECT NUMBER
PROJECT LOCATION 150 17th Street, Oakland, CA
DATE STARTED 11/22/16 **COMPLETED** 11/22/16
GROUND ELEVATION **HOLE SIZE** 3 inches
DRILLING CONTRACTOR Cascade Drilling, L.P.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY C. Klinesteker, PG **CHECKED BY** Bryan Campbell, PG, CHG
AT END OF DRILLING ---
NOTES
AFTER DRILLING 20.65 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0			0.5 Concrete and aggregate base	
			SILTY SAND, 60 % sand, 40 % fines, dark brown (7.5YR 3/2), poorly graded, fine grained, moist, loose	
			2.0 SILTY SAND, 85 % sand, 15 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
			4.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
5				PID = 0
				PID = 0
10				PID = 0
				PID = 0
				PID = 0
15				PID = 0
				PID = 0
				PID = 0
20			19.0 LEAN CLAY, 5 % sand, 95 % fines, grayish brown (10YR 5/2), poorly graded, moist, firm, medium plasticity	
			21.0 ▼	PID = 0
			22.0 SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	
			23.0 SILTY SAND, 30 % sand, 70 % fines, brown, poorly graded, fine grained, wet, loose	PID = 0
			SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	
25				PID = 0
				PID = 0
				PID = 0
			29.0	
30			SILT WITH GRAVEL, 15 % gravel, 5 % sand, 80 % fines, well graded, moist to wet, firm	
			30.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose	PID = 0
			32.0	
			Bottom of borehole at 32.0 feet.	PID = 0

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

ATC Group Services
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

BORING NUMBER B2

CLIENT Copeland Park Properties
PROJECT NAME
PROJECT NUMBER
PROJECT LOCATION 150 17th Street, Oakland, CA
DATE STARTED 11/22/16 **COMPLETED** 11/22/16
GROUND ELEVATION **HOLE SIZE** 3 inches
DRILLING CONTRACTOR Cascade Drilling, L.P.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY C. Klinesteker, PG **CHECKED BY** Bryan Campbell, PG, CHG
AT END OF DRILLING ---
NOTES
AFTER DRILLING 21.50 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0			0.5 Concrete and aggregate base	
			SILTY SAND, 60 % sand, 40 % fines, dark brown (7.5YR 3/2), poorly graded, fine grained, moist, loose	
			2.0 SILTY SAND, 85 % sand, 15 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
			4.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
5				PID = 0
				PID = 0
10				PID = 0
				PID = 0
				PID = 0
15				PID = 0
				PID = 0
				PID = 0
20			19.0 LEAN CLAY, 5 % sand, 95 % fines, grayish brown (10YR 5/2), poorly graded, moist, firm, medium plasticity	
			21.0 SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	PID = 0
			22.0 SILTY SAND, 30 % sand, 70 % fines, brown, poorly graded, fine grained, wet, loose	PID = 0
			23.0 SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	
25				PID = 0
				PID = 0
				PID = 0
			29.0 SILT WITH GRAVEL, 15 % gravel, 5 % sand, 80 % fines, well graded, moist to wet, firm	
30			30.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose	
35				PID = 0

(Continued Next Page)

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BUILDING SCIENCES • MATERIALS TESTING

ATC Group Services
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

BORING NUMBER B2

CLIENT Copeland Park Properties **PROJECT NAME**

PROJECT NUMBER **PROJECT LOCATION** 150 17th Street, Oakland, CA

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
35				
		36.0	POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose *(continued)*	
				PID = 0

Bottom of borehole at 36.0 feet.

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ATC Group Services
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Roseville, CA 95678

BORING NUMBER B3

CLIENT Copeland Park Properties
PROJECT NAME
PROJECT NUMBER
PROJECT LOCATION 150 17th Street, Oakland, CA
DATE STARTED 11/21/16 **COMPLETED** 11/21/16
GROUND ELEVATION **HOLE SIZE** 3 inches
DRILLING CONTRACTOR Cascade Drilling, L.P.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY C. Klinesteker, PG **CHECKED BY** Bryan Campbell, PG, CHG
AT END OF DRILLING ---
NOTES
AFTER DRILLING 22.00 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0			0.5 Concrete and aggregate base	
			SILTY SAND, 60 % sand, 40 % fines, dark brown (7.5YR 3/2), poorly graded, fine grained, moist, loose	
			2.0 SILTY SAND, 85 % sand, 15 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
			4.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
5				PID = 0
				PID = 0
10				PID = 0
				PID = 0
				PID = 0
15				PID = 0
				PID = 0
			19.0	PID = 0
20			LEAN CLAY, 5 % sand, 95 % fines, grayish brown (10YR 5/2), poorly graded, moist, firm, medium plasticity	PID = 0
			21.0 SILTY SAND, 30 % sand, 70 % fines, brown, poorly graded, fine grained, wet, loose	
			22.0 LEAN CLAY, 5 % sand, 95 % fines, grayish brown (10YR 5/2), poorly graded, moist, firm, medium plasticity	PID = 0
25				PID = 0
				PID = 0
			28.0	
			POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose	PID = 0
30				PID = 0
			32.0	
			Bottom of borehole at 32.0 feet.	PID = 0

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ATC Group Services
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

BORING NUMBER B4

CLIENT Copeland Park Properties
PROJECT NAME
PROJECT NUMBER
PROJECT LOCATION 150 17th Street, Oakland, CA
DATE STARTED 11/23/16 **COMPLETED** 11/23/16
GROUND ELEVATION **HOLE SIZE** 3 inches
DRILLING CONTRACTOR Cascade Drilling, L.P.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY C. Klinesteker, PG **CHECKED BY** Bryan Campbell, PG, CHG
AT END OF DRILLING ---
NOTES
AFTER DRILLING 22.00 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0			0.5 Concrete and aggregate base	
			SILTY SAND, 60 % sand, 40 % fines, dark brown (7.5YR 3/2), poorly graded, fine grained, moist, loose	
			2.0 SILTY SAND, 85 % sand, 15 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
			4.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
5				PID = 0
				PID = 0
				PID = 0
10				PID = 0
				PID = 0
				PID = 0
15				PID = 0
			16.0 SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity	PID = 0
				PID = 0
20				PID = 0
				PID = 0
			22.0 SILTY SAND, 30 % sand, 70 % fines, brown, poorly graded, fine grained, wet, loose	PID = 0
25			25.0 SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	PID = 0
				PID = 0
				PID = 0
30				PID = 0
			32.0 Bottom of borehole at 32.0 feet.	PID = 0

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ATC Group Services
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

BORING NUMBER B5

CLIENT Copeland Park Properties
PROJECT NAME
PROJECT NUMBER
PROJECT LOCATION 150 17th Street, Oakland, CA
DATE STARTED 11/22/16 **COMPLETED** 11/22/16
GROUND ELEVATION **HOLE SIZE** 3 inches
DRILLING CONTRACTOR Cascade Drilling, L.P.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY C. Klinesteker, PG **CHECKED BY** Bryan Campbell, PG, CHG
AT END OF DRILLING ---
NOTES
AFTER DRILLING 19.00 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0			0.5 Concrete and aggregate base	
			SILTY SAND, 60 % sand, 40 % fines, dark brown (7.5YR 3/2), poorly graded, fine grained, moist, loose	
			2.0 SILTY SAND, 85 % sand, 15 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
			4.0 POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, moist, loose	PID = 0
5				PID = 0
				PID = 0
10				PID = 0
				PID = 0
			14.0	
15			SANDY SILT, 30 % sand, 70 % fines, brown, poorly graded, fine grained, moist, soft to firm, low plasticity, Trace percentage of fine gravel observed in silt matrix	PID = 0
				PID = 0
			18.0	
			POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose, Intervals of up to 10% course sands and fine gravels within fine sands	PID = 0
20				PID = 0
				PID = 0
			23.0	
			LEAN CLAY, 10 % gravel, 90 % fines, brown (7.5YR 5/2), fine grained, moist to wet, firm, low to medium plasticity, sub-angular fine gravel observed within clay matrix	PID = 0
25				
			26.0	
			POORLY GRADED SAND, 95 % sand, 5 % fines, brown (7.5YR 5/2), poorly graded, fine grained, wet, loose, trace course sand and fine gravel observed in samples	PID = 0
				PID = 0
30				PID = 0
			32.0	
			Bottom of borehole at 32.0 feet.	PID = 0

Attachment E
Laboratory Analytical Reports

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1611B55 **Amended:** 12/02/2016

Report Created for: ATC Group Services

2400 Camino Ramon, Suite 360
San Ramon, CA 94583

Project Contact: Bryan Campbell
Project P.O.:
Project Name: Oakland. 150 17th Street

Project Received: 11/23/2016

Analytical Report reviewed & approved for release on 12/01/2016 by:

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: Oakland. 150 17th Street
WorkOrder: 1611B55

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

e2	diesel range compounds are significant; no recognizable pattern

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: Oakland. 150 17th Street
WorkOrder: 1611B55

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F3	the surrogate standard recovery and/or RPD is outside of acceptance limits.

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-2'	**1611B55-001A**	**Soil**	**11/22/2016 08:40**	**GC28**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/28/2016 20:42
Ethylbenzene	ND	0.0050	1	11/28/2016 20:42
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/28/2016 20:42
Naphthalene	ND	0.0050	1	11/28/2016 20:42
Toluene	ND	0.0050	1	11/28/2016 20:42
Xylenes, Total	ND	0.0050	1	11/28/2016 20:42

Surrogates	REC (%)	Limits	
Dibromofluoromethane	97	70-130	11/28/2016 20:42
Toluene-d8	111	70-130	11/28/2016 20:42
4-BFB	98	70-130	11/28/2016 20:42
Benzene-d6	84	60-140	11/28/2016 20:42
Ethylbenzene-d10	109	60-140	11/28/2016 20:42
1,2-DCB-d4	80	60-140	11/28/2016 20:42

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-8	**1611B55-002A**	**Soil**	**11/22/2016 09:00**	**GC28**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/28/2016 21:20
Ethylbenzene	ND	0.0050	1	11/28/2016 21:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/28/2016 21:20
Naphthalene	ND	0.0050	1	11/28/2016 21:20
Toluene	ND	0.0050	1	11/28/2016 21:20
Xylenes, Total	ND	0.0050	1	11/28/2016 21:20

Surrogates	REC (%)	Limits	
Dibromofluoromethane	96	70-130	11/28/2016 21:20
Toluene-d8	112	70-130	11/28/2016 21:20
4-BFB	95	70-130	11/28/2016 21:20
Benzene-d6	88	60-140	11/28/2016 21:20
Ethylbenzene-d10	113	60-140	11/28/2016 21:20
1,2-DCB-d4	82	60-140	11/28/2016 21:20

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-18	**1611B55-003A**	**Soil**	**11/22/2016 09:25**	**GC28**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/28/2016 21:58
Ethylbenzene	ND	0.0050	1	11/28/2016 21:58
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/28/2016 21:58
Naphthalene	ND	0.0050	1	11/28/2016 21:58
Toluene	ND	0.0050	1	11/28/2016 21:58
Xylenes, Total	ND	0.0050	1	11/28/2016 21:58

Surrogates	REC (%)	Limits	
Dibromofluoromethane	96	70-130	11/28/2016 21:58
Toluene-d8	110	70-130	11/28/2016 21:58
4-BFB	96	70-130	11/28/2016 21:58
Benzene-d6	82	60-140	11/28/2016 21:58
Ethylbenzene-d10	107	60-140	11/28/2016 21:58
1,2-DCB-d4	81	60-140	11/28/2016 21:58

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-2'	**1611B55-004A**	**Soil**	**11/22/2016 10:15**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 14:52
Ethylbenzene	ND	0.0050	1	11/29/2016 14:52
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 14:52
Naphthalene	ND	0.0050	1	11/29/2016 14:52
Toluene	ND	0.0050	1	11/29/2016 14:52
Xylenes, Total	ND	0.0050	1	11/29/2016 14:52

Surrogates	REC (%)	Limits	
Dibromofluoromethane	102	70-130	11/29/2016 14:52
Toluene-d8	115	70-130	11/29/2016 14:52
4-BFB	87	70-130	11/29/2016 14:52
Benzene-d6	85	60-140	11/29/2016 14:52
Ethylbenzene-d10	99	60-140	11/29/2016 14:52
1,2-DCB-d4	87	60-140	11/29/2016 14:52

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-8'	**1611B55-005A**	**Soil**	**11/22/2016 10:25**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 15:33
Ethylbenzene	ND	0.0050	1	11/29/2016 15:33
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 15:33
Naphthalene	ND	0.0050	1	11/29/2016 15:33
Toluene	ND	0.0050	1	11/29/2016 15:33
Xylenes, Total	ND	0.0050	1	11/29/2016 15:33

Surrogates	REC (%)	Limits	
Dibromofluoromethane	103	70-130	11/29/2016 15:33
Toluene-d8	115	70-130	11/29/2016 15:33
4-BFB	87	70-130	11/29/2016 15:33
Benzene-d6	83	60-140	11/29/2016 15:33
Ethylbenzene-d10	97	60-140	11/29/2016 15:33
1,2-DCB-d4	85	60-140	11/29/2016 15:33

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-2'	**1611B55-006A**	**Soil**	**11/21/2016 11:00**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 16:13
Ethylbenzene	ND	0.0050	1	11/29/2016 16:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 16:13
Naphthalene	ND	0.0050	1	11/29/2016 16:13
Toluene	ND	0.0050	1	11/29/2016 16:13
Xylenes, Total	ND	0.0050	1	11/29/2016 16:13

Surrogates	REC (%)	Limits	
Dibromofluoromethane	104	70-130	11/29/2016 16:13
Toluene-d8	113	70-130	11/29/2016 16:13
4-BFB	86	70-130	11/29/2016 16:13
Benzene-d6	93	60-140	11/29/2016 16:13
Ethylbenzene-d10	108	60-140	11/29/2016 16:13
1,2-DCB-d4	92	60-140	11/29/2016 16:13

Analyst(s): KF

(Cont.)

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Angela Rydelius, Lab Manager

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-8'	**1611B55-007A**	**Soil**	**11/21/2016 11:50**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 16:54
Ethylbenzene	ND	0.0050	1	11/29/2016 16:54
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 16:54
Naphthalene	ND	0.0050	1	11/29/2016 16:54
Toluene	ND	0.0050	1	11/29/2016 16:54
Xylenes, Total	ND	0.0050	1	11/29/2016 16:54

Surrogates	REC (%)	Limits	
Dibromofluoromethane	103	70-130	11/29/2016 16:54
Toluene-d8	113	70-130	11/29/2016 16:54
4-BFB	87	70-130	11/29/2016 16:54
Benzene-d6	84	60-140	11/29/2016 16:54
Ethylbenzene-d10	97	60-140	11/29/2016 16:54
1,2-DCB-d4	85	60-140	11/29/2016 16:54

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-2'	**1611B55-008A**	**Soil**	**11/23/2016 10:30**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 17:34
Ethylbenzene	ND	0.0050	1	11/29/2016 17:34
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 17:34
Naphthalene	ND	0.0050	1	11/29/2016 17:34
Toluene	ND	0.0050	1	11/29/2016 17:34
Xylenes, Total	ND	0.0050	1	11/29/2016 17:34

Surrogates	REC (%)	Limits	
Dibromofluoromethane	104	70-130	11/29/2016 17:34
Toluene-d8	114	70-130	11/29/2016 17:34
4-BFB	85	70-130	11/29/2016 17:34
Benzene-d6	96	60-140	11/29/2016 17:34
Ethylbenzene-d10	113	60-140	11/29/2016 17:34
1,2-DCB-d4	96	60-140	11/29/2016 17:34

Analyst(s): KF

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-8'	**1611B55-009A**	**Soil**	**11/23/2016 10:40**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 11:26
Ethylbenzene	ND	0.0050	1	11/29/2016 11:26
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 11:26
Naphthalene	ND	0.0050	1	11/29/2016 11:26
Toluene	ND	0.0050	1	11/29/2016 11:26
Xylenes, Total	ND	0.0050	1	11/29/2016 11:26

Surrogates	REC (%)	Limits	
Dibromofluoromethane	105	70-130	11/29/2016 11:26
Toluene-d8	113	70-130	11/29/2016 11:26
4-BFB	87	70-130	11/29/2016 11:26
Benzene-d6	88	60-140	11/29/2016 11:26
Ethylbenzene-d10	101	60-140	11/29/2016 11:26
1,2-DCB-d4	86	60-140	11/29/2016 11:26

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-2'	**1611B55-010A**	**Soil**	**11/22/2016 12:40**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/29/2016 23:41
Ethylbenzene	ND	0.0050	1	11/29/2016 23:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/29/2016 23:41
Naphthalene	ND	0.0050	1	11/29/2016 23:41
Toluene	ND	0.0050	1	11/29/2016 23:41
Xylenes, Total	ND	0.0050	1	11/29/2016 23:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	104	70-130	11/29/2016 23:41
Toluene-d8	113	70-130	11/29/2016 23:41
4-BFB	87	70-130	11/29/2016 23:41
Benzene-d6	71	60-140	11/29/2016 23:41
Ethylbenzene-d10	85	60-140	11/29/2016 23:41
1,2-DCB-d4	85	60-140	11/29/2016 23:41

Analyst(s): KF

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McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8260B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-8'	**1611B55-011A**	**Soil**	**11/22/2016 12:50**	**GC10**	**130381**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	11/30/2016 00:22
Ethylbenzene	ND	0.0050	1	11/30/2016 00:22
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/30/2016 00:22
Naphthalene	ND	0.0050	1	11/30/2016 00:22
Toluene	ND	0.0050	1	11/30/2016 00:22
Xylenes, Total	ND	0.0050	1	11/30/2016 00:22

Surrogates	REC (%)	Limits	
Dibromofluoromethane	104	70-130	11/30/2016 00:22
Toluene-d8	116	70-130	11/30/2016 00:22
4-BFB	83	70-130	11/30/2016 00:22
Benzene-d6	70	60-140	11/30/2016 00:22
Ethylbenzene-d10	88	60-140	11/30/2016 00:22
1,2-DCB-d4	93	60-140	11/30/2016 00:22

Analyst(s): KF

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"When Quality Counts"

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-2'	**1611B55-001A**	**Soil**	**11/22/2016 08:40**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 09:42
MTBE	---	0.050	1	11/30/2016 09:42
Benzene	---	0.0050	1	11/30/2016 09:42
Toluene	---	0.0050	1	11/30/2016 09:42
Ethylbenzene	---	0.0050	1	11/30/2016 09:42
Xylenes	---	0.015	1	11/30/2016 09:42

Surrogates	REC (%)	Limits	
2-Fluorotoluene	105	69-117	11/30/2016 09:42

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-8	**1611B55-002A**	**Soil**	**11/22/2016 09:00**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 10:12
MTBE	---	0.050	1	11/30/2016 10:12
Benzene	---	0.0050	1	11/30/2016 10:12
Toluene	---	0.0050	1	11/30/2016 10:12
Ethylbenzene	---	0.0050	1	11/30/2016 10:12
Xylenes	---	0.015	1	11/30/2016 10:12

Surrogates	REC (%)	Limits	
2-Fluorotoluene	102	69-117	11/30/2016 10:12

Analyst(s): IA

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-18	**1611B55-003A**	**Soil**	**11/22/2016 09:25**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 10:43
MTBE	---	0.050	1	11/30/2016 10:43
Benzene	---	0.0050	1	11/30/2016 10:43
Toluene	---	0.0050	1	11/30/2016 10:43
Ethylbenzene	---	0.0050	1	11/30/2016 10:43
Xylenes	---	0.015	1	11/30/2016 10:43

Surrogates	REC (%)	Limits	
2-Fluorotoluene	94	69-117	11/30/2016 10:43

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-2'	**1611B55-004A**	**Soil**	**11/22/2016 10:15**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 11:13
MTBE	---	0.050	1	11/30/2016 11:13
Benzene	---	0.0050	1	11/30/2016 11:13
Toluene	---	0.0050	1	11/30/2016 11:13
Ethylbenzene	---	0.0050	1	11/30/2016 11:13
Xylenes	---	0.015	1	11/30/2016 11:13

Surrogates	REC (%)	Limits	
2-Fluorotoluene	97	69-117	11/30/2016 11:13

Analyst(s): IA

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Angela Rydelius, Lab Manager

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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-8'	**1611B55-005A**	**Soil**	**11/22/2016 10:25**	**GC3**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/29/2016 13:39
MTBE	---	0.050	1	11/29/2016 13:39
Benzene	---	0.0050	1	11/29/2016 13:39
Toluene	---	0.0050	1	11/29/2016 13:39
Ethylbenzene	---	0.0050	1	11/29/2016 13:39
Xylenes	---	0.015	1	11/29/2016 13:39

Surrogates	REC (%)	Limits	
2-Fluorotoluene	99	69-117	11/29/2016 13:39

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-2'	**1611B55-006A**	**Soil**	**11/21/2016 11:00**	**GC7**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 10:42
MTBE	---	0.050	1	11/30/2016 10:42
Benzene	---	0.0050	1	11/30/2016 10:42
Toluene	---	0.0050	1	11/30/2016 10:42
Ethylbenzene	---	0.0050	1	11/30/2016 10:42
Xylenes	---	0.015	1	11/30/2016 10:42

Surrogates	REC (%)	Limits	
2-Fluorotoluene	84	69-117	11/30/2016 10:42

Analyst(s): IA

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-8'	**1611B55-007A**	**Soil**	**11/21/2016 11:50**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 11:44
MTBE	---	0.050	1	11/30/2016 11:44
Benzene	---	0.0050	1	11/30/2016 11:44
Toluene	---	0.0050	1	11/30/2016 11:44
Ethylbenzene	---	0.0050	1	11/30/2016 11:44
Xylenes	---	0.015	1	11/30/2016 11:44

Surrogates	REC (%)	Limits	
2-Fluorotoluene	100	69-117	11/30/2016 11:44

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-2'	**1611B55-008A**	**Soil**	**11/23/2016 10:30**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 12:15
MTBE	---	0.050	1	11/30/2016 12:15
Benzene	---	0.0050	1	11/30/2016 12:15
Toluene	---	0.0050	1	11/30/2016 12:15
Ethylbenzene	---	0.0050	1	11/30/2016 12:15
Xylenes	---	0.015	1	11/30/2016 12:15

Surrogates	REC (%)	Limits	
2-Fluorotoluene	100	69-117	11/30/2016 12:15

Analyst(s): IA

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Angela Rydelius, Lab Manager

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"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-8'	**1611B55-009A**	**Soil**	**11/23/2016 10:40**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 12:45
MTBE	---	0.050	1	11/30/2016 12:45
Benzene	---	0.0050	1	11/30/2016 12:45
Toluene	---	0.0050	1	11/30/2016 12:45
Ethylbenzene	---	0.0050	1	11/30/2016 12:45
Xylenes	---	0.015	1	11/30/2016 12:45

Surrogates	REC (%)	Limits	
2-Fluorotoluene	102	69-117	11/30/2016 12:45

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-2'	**1611B55-010A**	**Soil**	**11/22/2016 12:40**	**GC7**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/29/2016 14:00
MTBE	---	0.050	1	11/29/2016 14:00
Benzene	---	0.0050	1	11/29/2016 14:00
Toluene	---	0.0050	1	11/29/2016 14:00
Ethylbenzene	---	0.0050	1	11/29/2016 14:00
Xylenes	---	0.015	1	11/29/2016 14:00

Surrogates	REC (%)	Limits	
2-Fluorotoluene	89	69-117	11/29/2016 14:00

Analyst(s): IA

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW5030B
Date Prepared:	11/28/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-8'	**1611B55-011A**	**Soil**	**11/22/2016 12:50**	**GC19**	**130380**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/30/2016 21:22
MTBE	---	0.050	1	11/30/2016 21:22
Benzene	---	0.0050	1	11/30/2016 21:22
Toluene	---	0.0050	1	11/30/2016 21:22
Ethylbenzene	---	0.0050	1	11/30/2016 21:22
Xylenes	---	0.015	1	11/30/2016 21:22

Surrogates	REC (%)	Limits	
2-Fluorotoluene	107	69-117	11/30/2016 21:22

Analyst(s): IA

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW3550B
Date Prepared:	11/28/16	**Analytical Method:**	SW8015B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-2'	1611B55-001A	Soil	11/22/2016 08:40	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/29/2016 00:53
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/29/2016 00:53

Surrogates	REC (%)	Limits	
C9	98	72-114	11/29/2016 00:53

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-8	1611B55-002A	Soil	11/22/2016 09:00	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 15:11
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 15:11

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 15:11

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-18	1611B55-003A	Soil	11/22/2016 09:25	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 15:50
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 15:50

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 15:50

Analyst(s): TK

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW3550B
Date Prepared:	11/28/16	**Analytical Method:**	SW8015B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-2'	**1611B55-004A**	**Soil**	**11/22/2016 10:15**	**GC6A**	**130379**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**2.6**	1.0	1	11/28/2016 16:29
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 16:29

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 16:29

Analyst(s): TK Analytical Comments: e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-8'	**1611B55-005A**	**Soil**	**11/22/2016 10:25**	**GC6A**	**130379**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 17:07
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 17:07

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 17:07

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-2'	**1611B55-006A**	**Soil**	**11/21/2016 11:00**	**GC6A**	**130379**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 17:46
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 17:46

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 17:46

Analyst(s): TK

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW3550B
Date Prepared:	11/28/16	**Analytical Method:**	SW8015B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-8'	1611B55-007A	Soil	11/21/2016 11:50	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 18:25
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 18:25

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 18:25

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-2'	1611B55-008A	Soil	11/23/2016 10:30	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**7.1**	1.0	1	11/28/2016 19:04
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 19:04

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 19:04

Analyst(s): TK Analytical Comments: e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-8'	1611B55-009A	Soil	11/23/2016 10:40	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 19:43
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 19:43

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 19:43

Analyst(s): TK

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Received:	11/23/16 15:20	**Extraction Method:**	SW3550B
Date Prepared:	11/28/16	**Analytical Method:**	SW8015B
Project:	Oakland. 150 17th Street	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-2'	1611B55-010A	Soil	11/22/2016 12:40	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 20:21
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 20:21

Surrogates	REC (%)	Limits	
C9	99	72-114	11/28/2016 20:21

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-8'	1611B55-011A	Soil	11/22/2016 12:50	GC6A	130379

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/28/2016 21:00
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/28/2016 21:00

Surrogates	REC (%)	Limits	
C9	98	72-114	11/28/2016 21:00

Analyst(s): TK

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Prepared:	11/28/16	**BatchID:**	130381
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	Oakland. 150 17th Street	**Sample ID:**	MB/LCS-130381 1611B55-009AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0396	0.0050	0.050	-	79	53-116
Benzene	ND	0.0465	0.0050	0.050	-	93	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.163	0.050	0.20	-	81	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0479	0.0050	0.050	-	96	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0424	0.0040	0.050	-	85	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0425	0.0040	0.050	-	85	58-135
1,1-Dichloroethene	ND	0.0462	0.0050	0.050	-	92	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

(Cont.)

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QA/QC Officer

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Prepared:	11/28/16	**BatchID:**	130381
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	Oakland. 150 17th Street	**Sample ID:**	MB/LCS-130381 1611B55-009AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0412	0.0050	0.050	-	82	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0419	0.0050	0.050	-	84	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0402	0.0050	0.050	-	81	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0501	0.0050	0.050	-	100	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0500	0.0050	0.050	-	100	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Prepared:	11/28/16	**BatchID:**	130381
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	Oakland. 150 17th Street	**Sample ID:**	MB/LCS-130381 1611B55-009AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.132	0.131		0.12	105	105	70-130
Toluene-d8	0.145	0.148		0.12	116	118	70-130
4-BFB	0.0114	0.0119		0.012	91	95	70-130
Benzene-d6	0.101	0.0996		0.10	101	100	60-140
Ethylbenzene-d10	0.121	0.121		0.10	121	121	60-140
1,2-DCB-d4	0.0965	0.0957		0.10	96	96	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0348	0.0405	0.050	ND	70	81	53-116	15.1	20
Benzene	0.0370	0.0438	0.050	ND	74	88	63-137	16.8	20
t-Butyl alcohol (TBA)	0.136	0.163	0.20	ND	68	81	41-135	17.8	20
Chlorobenzene	0.0379	0.0451	0.050	ND	76,F1	90	77-121	17.4	20
1,2-Dibromoethane (EDB)	0.0348	0.0409	0.050	ND	70	82	67-119	16.2	20
1,2-Dichloroethane (1,2-DCA)	0.0353	0.0410	0.050	ND	71	82	58-135	15.1	20
1,1-Dichloroethene	0.0345	0.0415	0.050	ND	69	83	42-145	18.4	20
Diisopropyl ether (DIPE)	0.0344	0.0400	0.050	ND	69	80	52-129	15.1	20
Ethyl tert-butyl ether (ETBE)	0.0360	0.0418	0.050	ND	72	84	53-125	14.8	20
Methyl-t-butyl ether (MTBE)	0.0343	0.0398	0.050	ND	69	80	58-122	14.9	20
Toluene	0.0375	0.0460	0.050	ND	75,F1	92	76-130	20.5,F1	20
Trichloroethene	0.0395	0.0469	0.050	ND	79	94	72-132	17.2	20
Surrogate Recovery									
Dibromofluoromethane	0.135	0.134	0.12		108	107	70-130	0.760	20
Toluene-d8	0.140	0.143	0.12		112	115	70-130	2.45	20
4-BFB	0.0121	0.0125	0.012		97	100	70-130	3.14	20
Benzene-d6	0.0816	0.0920	0.10		82	92	60-140	11.9	20
Ethylbenzene-d10	0.0921	0.105	0.10		92	105	60-140	13.4	20
1,2-DCB-d4	0.0833	0.0930	0.10		83	93	60-140	11.0	20

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Prepared:	11/28/16	**BatchID:**	130380
Date Analyzed:	11/28/16	**Extraction Method:**	SW5030B
Instrument:	GC19	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Oakland. 150 17th Street	**Sample ID:**	MB/LCS-130380 1611B55-010AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.594	0.40	0.60	-	99	89-118
MTBE	ND	0.0881	0.050	0.10	-	88	68-116
Benzene	ND	0.104	0.0050	0.10	-	104	85-118
Toluene	ND	0.106	0.0050	0.10	-	106	87-121
Ethylbenzene	ND	0.109	0.0050	0.10	-	109	91-124
Xylenes	ND	0.328	0.015	0.30	-	109	92-126
Surrogate Recovery							
2-Fluorotoluene	0.126	0.109		0.10	126,F3	109	88-119

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.571	0.580	0.60	ND	95	97	66-122	1.64	20
MTBE	0.0822	0.0865	0.10	ND	80	84	58-106	5.02	20
Benzene	0.0906	0.0943	0.10	ND	91	94	63-116	3.95	20
Toluene	0.0934	0.0976	0.10	ND	93	98	66-118	4.36	20
Ethylbenzene	0.0964	0.102	0.10	ND	96	102	69-121	5.39	20
Xylenes	0.290	0.306	0.30	ND	97	102	70-125	5.34	20
Surrogate Recovery									
2-Fluorotoluene	0.0964	0.100	0.10		96	100	69-117	3.70	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B55
Date Prepared:	11/28/16	**BatchID:**	130379
Date Analyzed:	11/28/16	**Extraction Method:**	SW3550B
Instrument:	GC6A, GC9b	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Oakland. 150 17th Street	**Sample ID:**	MB/LCS-130379 1611B55-011AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	41.4	1.0	40	-	103	91-127
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	20.8	20.9		25	83	83	74-110

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	46.1	46.7	40	ND	115	117	74-143	1.25	30
Surrogate Recovery									
C9	24.5	24.9	25		98	100	72-114	1.68	30

McCampbell Analytical, Inc.
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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1611B55 **ClientCode: ATCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bryan Campbell
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
(925) 460-5300 FAX: (925) 328-1090

Email: bryan.campbell@atcassociates.com
cc/3rd Party:
PO:
ProjectNo: Oakland. 150 17th Street

Bill to:
Accounts Payable
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
maurice.mckinnies@cardno.com

Requested TAT: 5 days;

Date Received: **11/23/2016**
Date Logged: **11/28/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1611B55-001	B-1-2'	Soil	11/22/2016 08:40	☐	A	A	A									
1611B55-002	B-1-8	Soil	11/22/2016 09:00	☐	A	A	A									
1611B55-003	B-1-18	Soil	11/22/2016 09:25	☐	A	A	A									
1611B55-004	B-2-2'	Soil	11/22/2016 10:15	☐	A	A	A									
1611B55-005	B-2-8'	Soil	11/22/2016 10:25	☐	A	A	A									
1611B55-006	B-3-2'	Soil	11/21/2016 11:00	☐	A	A	A									
1611B55-007	B-3-8'	Soil	11/21/2016 11:50	☐	A	A	A									
1611B55-008	B-4-2'	Soil	11/23/2016 10:30	☐	A	A	A									
1611B55-009	B-4-8'	Soil	11/23/2016 10:40	☐	A	A	A									
1611B55-010	B-5-2'	Soil	11/22/2016 12:40	☐	A	A	A									
1611B55-011	B-5-8'	Soil	11/22/2016 12:50	☐	A	A	A									

Test Legend:

1	8260VOC_S	2	G-MBTEX_S	3	TPH(DMO)_S	4	
5		6		7		8	
9		10		11		12	

Prepared by: Maria Venegas

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: Oakland. 150 17th Street
Comments:

Work Order: 1611B55
QC Level: LEVEL 2
Date Logged: 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-001A	B-1-2'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	8OZ GJ	☐	11/22/2016 8:40	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-002A	B-1-8	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/22/2016 9:00	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-003A	B-1-18	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/22/2016 9:25	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-004A	B-2-2'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	8OZ GJ	☐	11/22/2016 10:15	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: Oakland. 150 17th Street
Comments:

Work Order: 1611B55
QC Level: LEVEL 2
Date Logged: 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-005A	B-2-8'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/22/2016 10:25	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-006A	B-3-2'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	8OZ GJ	☐	11/21/2016 11:00	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-007A	B-3-8'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/21/2016 11:50	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-008A	B-4-2'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	8OZ GJ	☐	11/23/2016 10:30	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES **Project:** Oakland. 150 17th Street **Work Order:** 1611B55
Client Contact: Bryan Campbell **QC Level:** LEVEL 2
Contact's Email: bryan.campbell@atcassociates.com **Comments:** **Date Logged:** 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-009A	B-4-8'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/23/2016 10:40	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-010A	B-5-2'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	8OZ GJ	☐	11/22/2016 12:40	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-011A	B-5-8'	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	11/22/2016 12:50	5 days		☐	
			SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>			☐		5 days		☐	
1611B55-012A	B-1-6'	Soil		1	Acetate Liner	☐	11/22/2016 8:55			☑	
1611B55-013A	B-1-10'	Soil		1	Acetate Liner	☐	11/22/2016 9:05			☑	
1611B55-014A	B-1-12'	Soil		1	Acetate Liner	☐	11/22/2016 9:10			☑	
1611B55-015A	B-1-14'	Soil		1	Acetate Liner	☐	11/22/2016 9:15			☑	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: Oakland. 150 17th Street
Comments:

Work Order: 1611B55
QC Level: LEVEL 2
Date Logged: 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-016A	B-1-16'	Soil		1	Acetate Liner	☐	11/22/2016 9:20			☑	
1611B55-017A	B-1-20'	Soil		1	Acetate Liner	☐	11/22/2016 9:30			☑	
1611B55-018A	B-1-24'	Soil		1	Acetate Liner	☐	11/22/2016 9:35			☑	
1611B55-019A	B-1-28'	Soil		1	Acetate Liner	☐	11/22/2016 9:40			☑	
1611B55-020A	B-1-30'	Soil		1	Acetate Liner	☐	11/22/2016 9:45			☑	
1611B55-021A	B-2-6'	Soil		1	Acetate Liner	☐	11/22/2016 10:20			☑	
1611B55-022A	B-2-10'	Soil		1	Acetate Liner	☐	11/22/2016 10:30			☑	
1611B55-023A	B-2-12'	Soil		1	Acetate Liner	☐	11/22/2016 10:35			☑	
1611B55-024A	B-2-14'	Soil		1	Acetate Liner	☐	11/22/2016 10:40			☑	
1611B55-025A	B-2-16'	Soil		1	Acetate Liner	☐	11/22/2016 10:45			☑	
1611B55-026A	B-2-18'	Soil		1	Acetate Liner	☐	11/22/2016 10:50			☑	
1611B55-027A	B-2-20'	Soil		1	Acetate Liner	☐	11/22/2016 10:55			☑	
1611B55-028A	B-2-24'	Soil		1	Acetate Liner	☐	11/22/2016 11:00			☑	
1611B55-029A	B-2-28'	Soil		1	Acetate Liner	☐	11/22/2016 11:10			☑	
1611B55-030A	B-3-6'	Soil		1	Acetate Liner	☐	11/21/2016 11:45			☑	
1611B55-031A	B-3-10'	Soil		1	Acetate Liner	☐	11/21/2016 11:55			☑	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: Oakland. 150 17th Street
Comments:

Work Order: 1611B55
QC Level: LEVEL 2
Date Logged: 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-032A	B-3-12'	Soil		1	Acetate Liner	☐	11/21/2016 12:00			☑	
1611B55-033A	B-3-14'	Soil		1	Acetate Liner	☐	11/21/2016 12:20			☑	
1611B55-034A	B-3-16'	Soil		1	Acetate Liner	☐	11/21/2016 12:30			☑	
1611B55-035A	B-3-18'	Soil		1	Acetate Liner	☐	11/21/2016 13:00			☑	
1611B55-036A	B-3-30'	Soil		1	Acetate Liner	☐	11/21/2016 13:10			☑	
1611B55-037A	B-4-6'	Soil		1	Acetate Liner	☐	11/23/2016 10:35			☑	
1611B55-038A	B-4-10'	Soil		1	Acetate Liner	☐	11/23/2016 10:45			☑	
1611B55-039A	B-4-12'	Soil		1	Acetate Liner	☐	11/23/2016 10:50			☑	
1611B55-040A	B-4-14'	Soil		1	Acetate Liner	☐	11/23/2016 10:55			☑	
1611B55-041A	B-4-16'	Soil		1	Acetate Liner	☐	11/23/2016 11:00			☑	
1611B55-042A	B-4-18'	Soil		1	Acetate Liner	☐	11/23/2016 11:05			☑	
1611B55-043A	B-4-20'	Soil		1	Acetate Liner	☐	11/23/2016 11:10			☑	
1611B55-044A	B-4-24'	Soil		1	Acetate Liner	☐	11/23/2016 11:15			☑	
1611B55-045A	B-4-28'	Soil		1	Acetate Liner	☐	11/23/2016 11:20			☑	
1611B55-046A	B-4-30'	Soil		1	Acetate Liner	☐	11/23/2016 11:25			☑	
1611B55-047A	B-5-6'	Soil		1	Acetate Liner	☐	11/22/2016 12:45			☑	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: Oakland. 150 17th Street
Comments:

Work Order: 1611B55
QC Level: LEVEL 2
Date Logged: 11/28/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B55-048A	B-5-10'	Soil		1	Acetate Liner	☐	11/22/2016 12:55			☑	
1611B55-049A	B-5-12'	Soil		1	Acetate Liner	☐	11/22/2016 13:00			☑	
1611B55-050A	B-5-14'	Soil		1	Acetate Liner	☐	11/22/2016 13:05			☑	
1611B55-051A	B-5-16'	Soil		1	Acetate Liner	☐	11/22/2016 13:10			☑	
1611B55-052A	B-5-18'	Soil		1	Acetate Liner	☐	11/22/2016 13:15			☑	
1611B55-053A	B-5-20'	Soil		1	Acetate Liner	☐	11/22/2016 13:20			☑	
1611B55-054A	B-5-24'	Soil		1	Acetate Liner	☐	11/22/2016 13:30			☑	
1611B55-055A	B-5-28'	Soil		1	Acetate Liner	☐	11/22/2016 13:35			☑	
1611B55-056A	B-5-30'	Soil		1	Acetate Liner	☐	11/22/2016 13:40			☑	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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General COC ~~Pg 1 of 6~~ ~~Pg 1 of 2 6~~ MAI Work Order # 1611B55

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1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #	
Delivery Format: GeoTracker EDF		PDF		EDD		Write On (DW)		EQuIS	

Report To: Bryan Campbell Bill To: ATC
Company: ATC Group Services
Email: bryan.campbell@atcassociates.com
Alt Email: Tele:
Project Name/#: Oakland
Project Location: 150 17th St. PO #
Sampler Signature: [signature]

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH ~~as Diesel~~ (8015) ~~+ Motor Oil Without Silica Gel~~ Multi-range	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	BTEX, MTBE, Naphthalene (8260)			
B-1-2'	11/22/16	0840	1	Soil			X														X			
B-1-8'	↓	0900	↓	↓			X														X			
B-1-18'	↓	0925	↓	↓			X														X			
B-2-2'	↓	1015	↓	↓			X														X			
B-2-8'	↓	1025	↓	↓			X														X			
B-3-2'	11/21/16	1100	↓	↓			X														X			
B-3-8'	11/21/16	1150	↓	↓			X														X			
B-4-2'	11/23/16	1030	↓	↓			X														X			
B-4-8'	11/23/16	1040	↓	↓			X														X			
B-5-2'	11/22/16	1240	↓	↓			X														X			

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
[signature] / ATC	11/23/16	1520	[signature]	11/23/16	1520

Comments / Instructions: Please hold remaining samples for possible future analysis.

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 7.5 °C Initials ______

Page 1 of 6

General COC

~~Pg. 2 of 2~~

MAI Work Order # ______________________

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #	
Delivery Format: GeoTracker EDF		PDF		EDD		Write On (DW)		EQuIS	

Report To: Bryan Campbell Bill To: ATC
Company: ATC Group Services
Email:
Alt Email: Tele:
Project Name/#: See Pg. 1
Project Location: PO #
Sampler Signature:

Analysis Requested

Analysis columns:
1. BTEX & TPH as Gas (8021/ 8015) MTBE
2. TPH ~~as Diesel~~ (8015) ~~+ Motor Oil Without Silica Gel~~ Multi-range
3. TPH as Diesel (8015) + Motor Oil With Silica Gel
4. Total Oil & Grease (1664 / 9071) Without Silica Gel
5. Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel
6. Total Petroleum Hydrocarbons (418.1) With Silica Gel
7. EPA 505/ 608 / 8081 (Cl Pesticides)
8. EPA 608 / 8082 PCB's ; Aroclors only
9. EPA 524.2 / 624 / 8260 (VOCs)
10. EPA 525.2 / 625 / 8270 (SVOCs)
11. EPA 8270 SIM / 8310 (PAHs / PNAs)
12. CAM 17 Metals (200.8 / 6020)*
13. Metals (200.8 / 6020)
14. Baylands Requirements
15. Lab to filter sample for dissolved metals analysis
16. BTEX, MTBE, Naphthalene (8260)

SAMPLE ID Location / Field Point	Date	Time	#Containers	Matrix	Preservative	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
B-5-8'	11/22/16	1250	1	Soil			X														X			
B-1-6'	11/22/16	0855																						
B-1-10'		0905																						
B-1-12'		0910																						
B-1-14'		0915																						
B-1-16'		0920																						
B-1-20		0930																						
B-1-24		0935																						
B-1-28		0940																						
B-1-30	↓	0945	↓	↓																				

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
[signature] / ATC	11/23/16	1520	[signature]	11/23/16	1520

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.5 °C Initials ______

Page 2 of 6

MAI Work Order # _____

5

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
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www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #						
J-Flag / MDL		ESL		Cleanup Approved			Bottle Order #								
Delivery Format:	GeoTracker EDF		PDF		EDD		Write On (DW)		EQuIS						

Report To: Bryan Campbell Bill To: ATC

Company:

Email:

Alt Email: Tele:

Project Name/#:

Project Location: PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis				
B-2-6'	11/22/16	1020	1	Soil																				
B-2-10'		1030																						
B-2-12'		1035																						
B-2-14'		1040																						
B-2-16'		1045																						
B-2-18'		1050																						
B-2-20'		1055																						
B-2-24'		1100																						
B-2-28'		1110																						
~~B-2-30'~~																								

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Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
COMA / ATC	11/23/16	1520		11/23/16	1520

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.5 °C Initials _____

MAI Work Order # _____

5

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www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #							
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #							
Delivery Format: GeoTracker EDF		PDF		EDD		Write On (DW)		EQuIS							

Report To: Bryan Campbell Bill To: ATC

Company:

Email:

Alt Email: Tele:

Project Name/#:

Project Location: PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis
B-3-6'	11/21/16	1145	1	Soil																
B-3-10'		1155																		
B-3-12'		1200																		
B-3-14'		1220																		
B-3-16'		1230																		
B-3-18'		1300																		
~~B-3-20'~~																				
~~B-3-24'~~																				
~~B-3-28'~~																				
B-3-30'		1310																		

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
correct / ATC	11/23/16	1520		11/23/16	1520

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.5 °C Initials _____

MAI Work Order # _____

5

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #							
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #							
Delivery Format: GeoTracker EDF		PDF		EDD		Write On (DW)		EQuIS							

Report To: Bryan Campbell Bill To: ATC

Company:

Email:

Alt Email: Tele:

Project Name/#:

Project Location: PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis				
B-4-6'	11/23/16	1035	1	Soil																				
B-4-10'		1045																						
B-4-12'		1050																						
B-4-14'		1055																						
B-4-16'		1100																						
B-4-18'		1105																						
B-4-20'		1110																						
B-4-24'		1115																						
B-4-28'		1120																						
B-4-30'		1125																						

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Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
CORE / ATC	11/23/16	1520		11/23/16	1520

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.5 °C Initials _____

Page 5 of 6

MAI Work Order # _____

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Telephone: (877) 252-9262 / Fax: (925) 252-9269
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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF | EDD | Write On (DW) | EQuIS

Report To: Bryan Campbell Bill To: ATC
Company:
Email:
Alt Email: Tele:
Project Name/#:
Project Location: PO #
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
B-S-6'	11/22/16	1245	1	Soil	
B-S-10'		1255			
B-S-12'		1300			
B-S-14'		1305			
B-S-16'		1310			
B-S-18'		1315			
B-S-20'		1320			
B-S-24'		1330			
B-S-28'		1335			
B-S-30'		1340			

Analysis Requested

BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
COURIER / ATC	11/23/16	1520		11/23/16	1520

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.5 °C Initials _____

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Sample Receipt Checklist

Client Name:	**ATC Group Services**	Date and Time Received	**11/23/2016 15:20**
Project Name:	**Oakland. 150 17th Street**	Date Logged:	**11/28/2016**
		Received by:	Alexandra Iniguez
WorkOrder №:	**1611B55** Matrix: Soil	Logged by:	Maria Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature	Temp: 2.5°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA ☑

Comments:

McCampbell Analytical, Inc.

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Analytical Report

WorkOrder: 1611B03

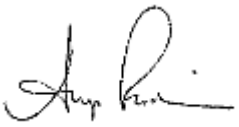
Report Created for: ATC Group Services

2400 Camino Ramon, Suite 360
San Ramon, CA 94583

Project Contact: Bryan Campbell
Project P.O.:
Project Name: Oakland

Project Received: 11/23/2016

Analytical Report reviewed & approved for release on 12/02/2016 by:



Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

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CA ELAP 1644 ♦ NELAP 4033ORELAP

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Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: Oakland
WorkOrder: 1611B03

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: Oakland
WorkOrder: 1611B03

Analytical Qualifiers

S	surrogate spike recovery outside accepted recovery limits
b1	aqueous sample that contains greater than ~1 vol. % sediment
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/30/16	**Analytical Method:**	SW8260B
Project:	Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-GW	1611B03-001B	Water	11/22/2016 09:55	GC18	130525

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/30/2016 03:09
Ethylbenzene	ND	0.50	1	11/30/2016 03:09
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/30/2016 03:09
Naphthalene	ND	0.50	1	11/30/2016 03:09
Toluene	ND	0.50	1	11/30/2016 03:09
Xylenes, Total	ND	0.50	1	11/30/2016 03:09

Surrogates	REC (%)	Limits	
Dibromofluoromethane	102	70-130	11/30/2016 03:09
Toluene-d8	98	70-130	11/30/2016 03:09
4-BFB	86	70-130	11/30/2016 03:09

Analyst(s): JEM Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-GW	1611B03-002B	Water	11/22/2016 12:35	GC18	130525

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/30/2016 03:48
Ethylbenzene	ND	0.50	1	11/30/2016 03:48
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/30/2016 03:48
Naphthalene	ND	0.50	1	11/30/2016 03:48
Toluene	ND	0.50	1	11/30/2016 03:48
Xylenes, Total	ND	0.50	1	11/30/2016 03:48

Surrogates	REC (%)	Limits	
Dibromofluoromethane	102	70-130	11/30/2016 03:48
Toluene-d8	96	70-130	11/30/2016 03:48
4-BFB	88	70-130	11/30/2016 03:48

Analyst(s): JEM Analytical Comments: b1

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/30/16	**Analytical Method:**	SW8260B
Project:	Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-GW	1611B03-003B	Water	11/22/2016 13:20	GC18	130525

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/30/2016 04:27
Ethylbenzene	ND	0.50	1	11/30/2016 04:27
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/30/2016 04:27
Naphthalene	ND	0.50	1	11/30/2016 04:27
Toluene	ND	0.50	1	11/30/2016 04:27
Xylenes, Total	ND	0.50	1	11/30/2016 04:27

Surrogates	REC (%)	Limits	
Dibromofluoromethane	103	70-130	11/30/2016 04:27
Toluene-d8	97	70-130	11/30/2016 04:27
4-BFB	86	70-130	11/30/2016 04:27

Analyst(s): JEM Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-GW	1611B03-004B	Water	11/22/2016 12:00	GC18	130525

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/30/2016 05:06
Ethylbenzene	ND	0.50	1	11/30/2016 05:06
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/30/2016 05:06
Naphthalene	ND	0.50	1	11/30/2016 05:06
Toluene	ND	0.50	1	11/30/2016 05:06
Xylenes, Total	ND	0.50	1	11/30/2016 05:06

Surrogates	REC (%)	Limits	
Dibromofluoromethane	102	70-130	11/30/2016 05:06
Toluene-d8	96	70-130	11/30/2016 05:06
4-BFB	87	70-130	11/30/2016 05:06

Analyst(s): JEM Analytical Comments: b1

(Cont.)

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/30/16	**Analytical Method:**	SW8260B
Project:	Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-GW	**1611B03-005B**	**Water**	**11/22/2016 14:20**	**GC18**	**130525**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/30/2016 05:44
Ethylbenzene	ND	0.50	1	11/30/2016 05:44
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/30/2016 05:44
Naphthalene	ND	0.50	1	11/30/2016 05:44
Toluene	ND	0.50	1	11/30/2016 05:44
Xylenes, Total	ND	0.50	1	11/30/2016 05:44

Surrogates	REC (%)	Limits	
Dibromofluoromethane	102	70-130	11/30/2016 05:44
Toluene-d8	97	70-130	11/30/2016 05:44
4-BFB	84	70-130	11/30/2016 05:44

Analyst(s): JEM Analytical Comments: b1

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/29/16-12/1/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-GW	1611B03-001A	Water	11/22/2016 09:55	GC7	130467

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	12/01/2016 08:19
MTBE	---	5.0	1	12/01/2016 08:19
Benzene	---	0.50	1	12/01/2016 08:19
Toluene	---	0.50	1	12/01/2016 08:19
Ethylbenzene	---	0.50	1	12/01/2016 08:19
Xylenes	---	1.5	1	12/01/2016 08:19

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	132	S	89-115	12/01/2016 08:19

Analyst(s): IA Analytical Comments: c4,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-GW	1611B03-002A	Water	11/22/2016 12:35	GC3	130532

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	12/01/2016 07:05
MTBE	---	5.0	1	12/01/2016 07:05
Benzene	---	0.50	1	12/01/2016 07:05
Toluene	---	0.50	1	12/01/2016 07:05
Ethylbenzene	---	0.50	1	12/01/2016 07:05
Xylenes	---	1.5	1	12/01/2016 07:05

Surrogates	REC (%)	Limits	
aaa-TFT	106	89-115	12/01/2016 07:05

Analyst(s): IA Analytical Comments: b1

(Cont.)

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/29/16-12/1/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-GW	1611B03-003A	Water	11/22/2016 13:20	GC3	130532

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/29/2016 16:41
MTBE	---	5.0	1	11/29/2016 16:41
Benzene	---	0.50	1	11/29/2016 16:41
Toluene	---	0.50	1	11/29/2016 16:41
Ethylbenzene	---	0.50	1	11/29/2016 16:41
Xylenes	---	1.5	1	11/29/2016 16:41

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	160	S	89-115	11/29/2016 16:41

Analyst(s): IA Analytical Comments: c4,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-GW	1611B03-004A	Water	11/22/2016 12:00	GC3	130532

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/29/2016 17:11
MTBE	---	5.0	1	11/29/2016 17:11
Benzene	---	0.50	1	11/29/2016 17:11
Toluene	---	0.50	1	11/29/2016 17:11
Ethylbenzene	---	0.50	1	11/29/2016 17:11
Xylenes	---	1.5	1	11/29/2016 17:11

Surrogates	REC (%)	Limits	
aaa-TFT	106	89-115	11/29/2016 17:11

Analyst(s): IA Analytical Comments: b1

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW5030B
Date Prepared:	11/29/16-12/1/16	**Analytical Method:**	SW8021B/8015Bm
Project:	Oakland	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-GW	**1611B03-005A**	**Water**	**11/22/2016 14:20**	**GC3**	**130532**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/29/2016 17:41
MTBE	---	5.0	1	11/29/2016 17:41
Benzene	---	0.50	1	11/29/2016 17:41
Toluene	---	0.50	1	11/29/2016 17:41
Ethylbenzene	---	0.50	1	11/29/2016 17:41
Xylenes	---	1.5	1	11/29/2016 17:41

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	145	S	89-115	11/29/2016 17:41

Analyst(s): IA Analytical Comments: c4,b1

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW3510C
Date Prepared:	11/23/16	**Analytical Method:**	SW8015B
Project:	Oakland	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1-GW	1611B03-001A	Water	11/22/2016 09:55	GC11A	130245

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/24/2016 10:46
TPH-Motor Oil (C18-C36)	ND	250	1	11/24/2016 10:46

Surrogates	REC (%)	Limits	
C9	103	72-117	11/24/2016 10:46

Analyst(s): TK Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2-GW	1611B03-002A	Water	11/22/2016 12:35	GC11A	130245

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/24/2016 10:07
TPH-Motor Oil (C18-C36)	ND	250	1	11/24/2016 10:07

Surrogates	REC (%)	Limits	
C9	102	72-117	11/24/2016 10:07

Analyst(s): TK Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3-GW	1611B03-003A	Water	11/22/2016 13:20	GC11A	130245

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/24/2016 11:25
TPH-Motor Oil (C18-C36)	ND	250	1	11/24/2016 11:25

Surrogates	REC (%)	Limits	
C9	102	72-117	11/24/2016 11:25

Analyst(s): TK Analytical Comments: b1

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Received:	11/23/16 14:40	**Extraction Method:**	SW3510C
Date Prepared:	11/23/16	**Analytical Method:**	SW8015B
Project:	Oakland	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-4-GW	**1611B03-004A**	**Water**	**11/22/2016 12:00**	**GC6A**	**130245**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/24/2016 11:47
TPH-Motor Oil (C18-C36)	ND	250	1	11/24/2016 11:47

Surrogates	REC (%)	Limits	
C9	101	72-117	11/24/2016 11:47

Analyst(s): TK Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5-GW	**1611B03-005A**	**Water**	**11/22/2016 14:20**	**GC6A**	**130245**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/24/2016 12:26
TPH-Motor Oil (C18-C36)	ND	250	1	11/24/2016 12:26

Surrogates	REC (%)	Limits	
C9	102	72-117	11/24/2016 12:26

Analyst(s): TK Analytical Comments: b1

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Prepared:	11/29/16	**BatchID:**	130525
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Oakland	**Sample ID:**	MB/LCS-130525 1611B39-003AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	192	10	200	-	96	46-155
tert-Amyl methyl ether (TAME)	ND	8.93	0.50	10	-	89	54-140
Benzene	ND	9.59	0.50	10	-	96	47-158
t-Butyl alcohol (TBA)	ND	35.5	2.0	40	-	89	42-140
Chlorobenzene	ND	9.64	0.50	10	-	96	43-157
1,2-Dibromoethane (EDB)	ND	9.57	0.50	10	-	96	44-155
1,2-Dichloroethane (1,2-DCA)	ND	9.47	0.50	10	-	95	66-125
1,1-Dichloroethene	ND	9.61	0.50	10	-	96	47-149
Diisopropyl ether (DIPE)	ND	9.35	0.50	10	-	94	57-136
Ethylbenzene	ND	9.57	0.50	10	-	96	60-152
Ethyl tert-butyl ether (ETBE)	ND	9.30	0.50	10	-	93	55-137
Methyl-t-butyl ether (MTBE)	ND	9.33	0.50	10	-	93	53-139
Naphthalene	ND	8.96	0.50	10	-	90	66-127
Toluene	ND	9.47	0.50	10	-	95	52-137
Trichloroethene	ND	9.78	0.50	10	-	98	43-157
Xylenes, Total	ND	28.1	0.50	30	-	94	70-130
Surrogate Recovery							
Dibromofluoromethane	25.6	25.2		25	102	101	70-130
Toluene-d8	24.2	24.9		25	97	100	70-130
4-BFB	2.23	2.22		2.5	89	89	70-130

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Prepared:	11/29/16	**BatchID:**	130525
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Oakland	**Sample ID:**	MB/LCS-130525 1611B39-003AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	232	230	200	ND	116	115	66-158	0.876	20
tert-Amyl methyl ether (TAME)	9.87	10.0	10	ND	99	100	69-139	1.52	20
Benzene	10.2	10.5	10	ND	102	105	69-141	2.67	20
t-Butyl alcohol (TBA)	41.1	42.0	40	ND	103	105	41-152	2.28	20
Chlorobenzene	10.2	10.5	10	ND	102	105	77-120	2.79	20
1,2-Dibromoethane (EDB)	10.3	10.4	10	ND	103	105	76-135	1.31	20
1,2-Dichloroethane (1,2-DCA)	10.4	10.6	10	ND	104	105	73-139	1.29	20
1,1-Dichloroethene	9.87	10.4	10	ND	99	104	59-140	4.83	20
Diisopropyl ether (DIPE)	10.4	10.5	10	ND	104	105	72-140	1.07	20
Ethylbenzene	10.2	10.5	10	ND	102	105	73-128	2.94	20
Ethyl tert-butyl ether (ETBE)	10.3	10.4	10	ND	103	104	71-140	1.12	20
Methyl-t-butyl ether (MTBE)	10.3	10.4	10	ND	102	103	73-139	1.39	20
Naphthalene	10.9	10.8	10	ND	109	108	54-148	0.684	20
Toluene	9.89	10.0	10	ND	99	100	71-128	1.43	20
Trichloroethene	10.2	10.6	10	ND	102	106	64-132	3.53	20
Xylenes, Total	30.6	32.1	30	ND	102	107	70-130	4.78	20
Surrogate Recovery									
Dibromofluoromethane	25.3	25.5	25		101	102	73-131	0.608	20
Toluene-d8	24.6	24.2	25		98	97	72-117	1.77	20
4-BFB	2.20	2.30	2.5		88	92	74-116	4.69	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Prepared:	11/29/16	**BatchID:**	130532
Date Analyzed:	11/29/16	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	Oakland	**Sample ID:**	MB/LCS-130532 1611B03-004AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	58.5	40	60	-	97	85-112
MTBE	ND	9.13	5.0	10	-	91	74-127
Benzene	ND	9.60	0.50	10	-	96	81-124
Toluene	ND	10.0	0.50	10	-	100	79-131
Ethylbenzene	ND	10.3	0.50	10	-	103	86-127
Xylenes	ND	32.6	1.5	30	-	108	87-133
Surrogate Recovery							
aaa-TFT	10.1	10.1		10	101	101	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	63.5	63.0	60	ND	106	105	85-113	0.848	20
MTBE	8.59	8.61	10	ND	86	86	73-120	0	20
Benzene	9.44	10.1	10	ND	94	100	84-121	6.68	20
Toluene	10.4	10.8	10	ND	101	104	86-125	3.33	20
Ethylbenzene	11.5	12.0	10	ND	113	118	93-124	4.03	20
Xylenes	35.9	36.1	30	ND	117	117	93-130	0	20
Surrogate Recovery									
aaa-TFT	10.2	10.5	10		101	105	89-115	3.06	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B03
Date Prepared:	11/22/16	**BatchID:**	130245
Date Analyzed:	11/23/16	**Extraction Method:**	SW3510C
Instrument:	GC9a	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	Oakland	**Sample ID:**	MB/LCS/LCSD-130245

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	622		625	100	74-107

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1160	1130	1000	116	113	95-136	2.16	30
Surrogate Recovery								
C9	600	600	625	96	96	74-107	0	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1611B03 **ClientCode: ATCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bryan Campbell
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
(925) 460-5300 FAX: (925) 328-1090

Email: bryan.campbell@atcassociates.com
cc/3rd Party:
PO:
ProjectNo: Oakland

Bill to:
Accounts Payable
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
maurice.mckinnies@cardno.com

Requested TAT: 5 days;

Date Received: **11/23/2016**
Date Logged: **11/23/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1611B03-001	B-1-GW	Water	11/22/2016 09:55	☐	B	A	A									
1611B03-002	B-2-GW	Water	11/22/2016 12:35	☐	B	A	A									
1611B03-003	B-3-GW	Water	11/22/2016 13:20	☐	B	A	A									
1611B03-004	B-4-GW	Water	11/22/2016 12:00	☐	B	A	A									
1611B03-005	B-5-GW	Water	11/22/2016 14:20	☐	B	A	A									

Test Legend:

1	8260VOC_W	2	G-MBTEX_W	3	TPH(DMO)_W	4	
5		6		7		8	
9		10		11		12	

Prepared by: Jena Alfaro

The following SampIDs: 001A, 002A, 003A, 004A, 005A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES **Project:** Oakland **Work Order:** 1611B03
Client Contact: Bryan Campbell **QC Level:** LEVEL 2
Contact's Email: bryan.campbell@atcassociates.com **Comments:** **Date Logged:** 11/23/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B03-001A	B-1-GW	Water	Multi-Range TPH by EPA 8015Bm	4	VOA w/ HCl	☐	11/22/2016 9:55	5 days	5%+	☐	
1611B03-001B	B-1-GW	Water	SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	11/22/2016 9:55	5 days	5%+	☐	
				2	1LA	☐			5%+	☐	
1611B03-002A	B-2-GW	Water	Multi-Range TPH by EPA 8015Bm	4	VOA w/ HCl	☐	11/22/2016 12:35	5 days	5%+	☐	
1611B03-002B	B-2-GW	Water	SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	11/22/2016 12:35	5 days	5%+	☐	
				2	1LA	☐			5%+	☐	
1611B03-003A	B-3-GW	Water	Multi-Range TPH by EPA 8015Bm	4	VOA w/ HCl	☐	11/22/2016 13:20	5 days	5%+	☐	
1611B03-003B	B-3-GW	Water	SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	11/22/2016 13:20	5 days	5%+	☐	
				2	1LA	☐			5%+	☐	
1611B03-004A	B-4-GW	Water	Multi-Range TPH by EPA 8015Bm	4	VOA w/ HCl	☐	11/22/2016 12:00	5 days	5%+	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES **Project:** Oakland **Work Order:** 1611B03
Client Contact: Bryan Campbell **QC Level:** LEVEL 2
Contact's Email: bryan.campbell@atcassociates.com **Comments:** **Date Logged:** 11/23/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B03-004B	B-4-GW	Water	SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	11/22/2016 12:00	5 days	5%+	☐	
				2	1LA	☐			5%+	☐	
1611B03-005A	B-5-GW	Water	Multi-Range TPH by EPA 8015Bm	4	VOA w/ HCl	☐	11/22/2016 14:20	5 days	5%+	☐	
1611B03-005B	B-5-GW	Water	SW8260B (VOCs) <Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	11/22/2016 14:20	5 days	5%+	☐	
				2	1LA	☐			5%+	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 1611B03

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1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF | EDD | Write On (DW) | EQuIS

Report To: Bryan Campbell Bill To: ATC
Company: ATC Group Services
Email: Bryan.Campbell@ATCAssociates.com
Alt Email: Tele:
Project Name/#: Oakland
Project Location: 150 17th St. PO #
Sampler Signature: [signature]

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
B-1-GW	11/22/16	0955	6 VOA 2 Amb	GW	
B-2-GW	11/22/16	1235			
B-3-GW	11/21/16	[illegible]			
B-4-GW	11/23/16	1200			
B-5-GW	11/22/16	1420			

Analysis Requested

SAMPLE ID	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as ~~Diesel (8015) + Motor Oil With Silica Gel~~ Multi-range	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	8260 (BTEX, MTBE, Naphthalene)
B-1-GW		X														X
B-2-GW		X														X
B-3-GW		X														X
B-4-GW		X														X
B-5-GW		X														X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
[signature] / ATC	11/23/16	1440	[signature]	11/23	1440

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 0.3 °C Initials

Page ___ of ___

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Sample Receipt Checklist

Client Name:	**ATC Group Services**	Date and Time Received	**11/23/2016 14:40**
Project Name:	**Oakland**	Date Logged:	**11/23/2016**
		Received by:	Jena Alfaro
WorkOrder №:	**1611B03** Matrix: Water	Logged by:	Jena Alfaro
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	NA ☐
Sample/Temp Blank temperature	Temp: 6.3°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	NA ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	
	(Ice Type: WET ICE)		

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

Comments:

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1611B02

Report Created for: ATC Group Services

2400 Camino Ramon, Suite 360
San Ramon, CA 94583

Project Contact: Bryan Campbell
Project P.O.:
Project Name: Oakland

Project Received: 11/23/2016

Analytical Report reviewed & approved for release on 12/02/2016 by:

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: Oakland
WorkOrder: 1611B02

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a10	reporting limit changed due to variable volume of air that pumped through each filter / sorbent tube.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Received:	11/23/16 14:26	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	11/29/16	**Analytical Method:**	ASTM D 1946-90
Project:	Oakland	**Unit:**	%

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-1	**1611B02-001B**	**SoilGas**	**11/23/2016 11:07**	**GC26**	**130539**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.60	**29.13**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**7.9**	0.40	1	11/29/2016 12:01

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-2	**1611B02-002B**	**SoilGas**	**11/23/2016 09:12**	**GC26**	**130539**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.13	**24.27**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**11**	0.40	1	11/29/2016 12:22

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Received:	11/23/16 14:26	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	11/28/16	**Analytical Method:**	ASTM D 1946-90
Project:	Oakland	**Unit:**	%

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-1	**1611B02-001A**	**SoilGas**	**11/23/2016 11:07**	**GC26**	**130537**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.60	**29.13**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	11/28/2016 15:07

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-2	**1611B02-002A**	**SoilGas**	**11/23/2016 09:12**	**GC26**	**130537**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.13	**24.27**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Helium	**0.051**	0.050	1	11/28/2016 15:20

Angela Rydelius, Lab Manager

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Received:	11/23/16 14:26	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	11/29/16-11/30/16	**Analytical Method:**	ASTM D 1946-90
Project:	Oakland	**Unit:**	uL/L

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-1	**1611B02-001B**	**SoilGas**	**11/23/2016 11:07**	**GC26**	**130595**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.60	**29.13**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	**30,000**	160	4	11/29/2016 12:01
Methane	**260**	2.0	1	11/30/2016 15:46

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-2	**1611B02-002B**	**SoilGas**	**11/23/2016 09:12**	**GC26**	**130595**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.13	**24.27**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	**5700**	40	1	11/30/2016 16:20
Methane	**11**	2.0	1	11/30/2016 16:20

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Received:	11/23/16 14:26	**Extraction Method:**	TO17
Date Prepared:	12/1/16-12/2/16	**Analytical Method:**	TO17
Project:	Oakland	**Unit:**	µg/m³

Volatile Organic Compounds in µg/m³

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-1	**1611B02-001A**	**SoilGas**	**11/23/2016 11:07**	**GC37**	**130656**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**32**	2.2	1	12/01/2016 21:58
Ethylbenzene	**20**	2.2	1	12/01/2016 21:58
Methyl-t-butyl ether (MTBE)	ND	2.2	1	12/01/2016 21:58
Naphthalene	ND	2.2	1	12/01/2016 21:58
Toluene	**69**	2.2	1	12/01/2016 21:58
Xylenes, Total	**43**	6.7	1	12/01/2016 21:58

Surrogates	REC (%)	Limits	
4-BFB	109	70-130	12/01/2016 21:58
toluene-d8	102	70-130	12/01/2016 21:58
1,2-DCA-d4	94	70-130	12/01/2016 21:58

Analyst(s): KBO Analytical Comments: a10

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
V-2	**1611B02-002A**	**SoilGas**	**11/23/2016 09:12**	**GC37**	**130656**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**30**	2.1	1	12/02/2016 00:12
Ethylbenzene	**7.6**	2.1	1	12/02/2016 00:12
Methyl-t-butyl ether (MTBE)	ND	2.1	1	12/02/2016 00:12
Naphthalene	ND	2.1	1	12/02/2016 00:12
Toluene	**60**	2.1	1	12/02/2016 00:12
Xylenes, Total	**25**	6.2	1	12/02/2016 00:12

Surrogates	REC (%)	Limits	
4-BFB	107	70-130	12/02/2016 00:12
toluene-d8	101	70-130	12/02/2016 00:12
1,2-DCA-d4	93	70-130	12/02/2016 00:12

Analyst(s): KBO Analytical Comments: a10

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"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Prepared:	11/29/16	**BatchID:**	130539
Date Analyzed:	11/29/16	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	SoilGas	**Unit:**	%
Project:	Oakland	**Sample ID:**	MB/LCS-130539

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Oxygen	ND	0.633	0.20	0.70	-	90	70-130

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Prepared:	11/28/16	**BatchID:**	130537
Date Analyzed:	11/28/16	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	Soilgas	**Unit:**	%
Project:	Oakland	**Sample ID:**	MB/LCS-130537

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.118	0.025	0.10	-	118	60-140

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Prepared:	11/30/16	**BatchID:**	130595
Date Analyzed:	11/30/16	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	Tedlar	**Unit:**	uL/L
Project:	Oakland	**Sample ID:**	MB/LCS-130595

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	89.2	20	100	-	89	70-130
Methane	ND	88.8	1.0	100	-	89	70-130

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Prepared:	12/1/16	**BatchID:**	130656
Date Analyzed:	12/1/16	**Extraction Method:**	TO17
Instrument:	GC37	**Analytical Method:**	TO17
Matrix:	Sorbent Tube	**Unit:**	µg/m³
Project:	Oakland	**Sample ID:**	MB/LCS-130656

QC Summary Report for TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1,1-Trichloroethane	ND	47.8	2.0	50	-	96	60-140
1,1-Dichloroethane	ND	42.7	2.0	50	-	85	60-140
1,1-Dichloroethene	ND	53.5	2.0	50	-	107	60-140
1,1-Dichloropropene	ND	45.8	2.0	50	-	92	60-140
2,2-Dichloropropane	ND	46.1	2.0	50	-	92	60-140
2-Butanone (MEK)	ND	167	8.0	200	-	83	60-140
2-Hexanone	ND	38.7	2.0	50	-	77	60-140
Acetone	ND	882	20	1000	-	88	60-140
Bromochloromethane	ND	49.9	2.0	50	-	100	60-140
Carbon Disulfide	ND	52.5	2.0	50	-	105	60-140
Carbon Tetrachloride	ND	44.2	2.0	50	-	88	60-140
Chloroform	ND	44.2	2.0	50	-	88	60-140
cis-1,2-Dichloroethene	ND	44.0	2.0	50	-	88	60-140
Dibromomethane	ND	47.8	2.0	50	-	96	60-140
Diisopropyl ether (DIPE)	ND	45.8	2.0	50	-	92	60-140
Ethyl tert-butyl ether (ETBE)	ND	41.8	2.0	50	-	84	60-140
Methylene chloride	ND	41.7	2.0	50	-	83	60-140
n-Butyl benzene	ND	48.1	2.0	50	-	96	60-140
t-Butyl alcohol (TBA)	ND	164	8.0	200	-	82	60-140
tert-Amyl methyl ether (TAME)	ND	46.6	2.0	50	-	93	60-140
Tetrahydrofuran	ND	344	2.0	500	-	69	60-140
trans-1,2-Dichloroethene	ND	44.6	2.0	50	-	89	60-140
Benzene	ND	41.5	2.0	50	-	83	60-140
Bromobenzene	ND	46.5	2.0	50	-	93	60-140
Bromodichloromethane	ND	47.5	2.0	50	-	95	60-140
Bromoform	ND	43.0	2.0	50	-	86	60-140
sec-Butyl benzene	ND	44.5	2.0	50	-	89	60-140
tert-Butyl benzene	ND	44.9	2.0	50	-	90	60-140
Chlorobenzene	ND	45.5	2.0	50	-	91	60-140
2-Chlorotoluene	ND	44.0	2.0	50	-	88	60-140
4-Chlorotoluene	ND	44.6	2.0	50	-	89	60-140
Dibromochloromethane	ND	44.9	2.0	50	-	90	60-140
1,2-Dibromo-3-chloropropane	ND	16.7	2.0	20	-	84	60-140
1,2-Dibromoethane (EDB)	ND	43.9	2.0	50	-	88	60-140
1,2-Dichlorobenzene	ND	44.3	2.0	50	-	89	60-140
1,3-Dichlorobenzene	ND	43.9	2.0	50	-	88	60-140
1,4-Dichlorobenzene	ND	44.5	2.0	50	-	89	60-140

(Cont.)

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1611B02
Date Prepared:	12/1/16	**BatchID:**	130656
Date Analyzed:	12/1/16	**Extraction Method:**	TO17
Instrument:	GC37	**Analytical Method:**	TO17
Matrix:	Sorbent Tube	**Unit:**	µg/m³
Project:	Oakland	**Sample ID:**	MB/LCS-130656

QC Summary Report for TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,2-Dichloroethane (1,2-DCA)	ND	42.9	2.0	50	-	86	60-140
1,2-Dichloropropane	ND	45.2	2.0	50	-	90	60-140
1,3-Dichloropropane	ND	44.3	2.0	50	-	89	60-140
cis-1,3-Dichloropropene	ND	41.6	2.0	50	-	83	60-140
trans-1,3-Dichloropropene	ND	42.2	2.0	50	-	84	60-140
Ethylbenzene	ND	47.2	2.0	50	-	94	60-140
Hexachlorobutadiene	ND	42.2	2.0	50	-	84	60-140
Isopropylbenzene	ND	46.9	2.0	50	-	94	60-140
4-Isopropyl toluene	ND	45.7	2.0	50	-	91	60-140
Methyl-t-butyl ether (MTBE)	ND	47.5	2.0	50	-	95	60-140
Naphthalene	ND	45.6	2.0	50	-	91	60-140
n-Propyl benzene	ND	45.4	2.0	50	-	91	60-140
Styrene	ND	44.1	2.0	50	-	88	60-140
1,1,1,2-Tetrachloroethane	ND	44.9	2.0	50	-	90	60-140
1,1,2,2-Tetrachloroethane	ND	47.1	2.0	50	-	94	60-140
Tetrachloroethene	ND	44.7	2.0	50	-	89	60-140
Toluene	ND	45.9	2.0	50	-	92	60-140
1,2,3-Trichlorobenzene	ND	42.2	2.0	50	-	84	60-140
1,2,4-Trichlorobenzene	ND	42.5	2.0	50	-	85	60-140
1,1,2-Trichloroethane	ND	45.9	2.0	50	-	92	60-140
Trichloroethene	ND	44.8	2.0	50	-	90	60-140
1,2,3-Trichloropropane	ND	47.6	2.0	50	-	95	60-140
1,2,4-Trimethylbenzene	ND	45.4	2.0	50	-	91	60-140
1,3,5-Trimethylbenzene	ND	47.1	2.0	50	-	94	60-140
Xylenes, Total	ND	142	6.0	150	-	95	60-140
Surrogate Recovery							
4-BFB	98.6	103		100	99	103	70-130
toluene-d8	98.0	103		100	98	103	70-130

QA/QC Officer

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1611B02 **ClientCode: ATCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ▣ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bryan Campbell
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
(925) 460-5300 FAX: (925) 328-1090

Email: bryan.campbell@atcassociates.com
cc/3rd Party:
PO:
ProjectNo: Oakland

Bill to:
Accounts Payable
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
maurice.mckinnies@cardno.com

Requested TAT: 5 days;

Date Received: **11/23/2016**
Date Logged: **11/23/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1611B02-001	V-1	SoilGas	11/23/2016 11:07	☐	B	A	B			A						
1611B02-002	V-2	SoilGas	11/23/2016 09:12	☐	B	A	B			A						
1611B02-003	Unused Summa	SoilGas	<Not Provided>	☐				A	A		A					

Test Legend:

1	ATMOSPHERICGAS_SG(%)	2	HELIUM_LC_SOILGAS(%)	3	LG_SUMMA_SOILGAS	4	PRHELIUM SHROUD
5	PRUNUSEDSUMMA	6	TO17VOC_ST(UGM3)	7	UNUSED_SUMMA	8	
9		10		11		12	

Prepared by: Jena Alfaro

The following SampIDs: 001A, 002A contain testgroup TO17+Helium_SG(UG/M3).

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES **Project:** Oakland **Work Order:** 1611B02
Client Contact: Bryan Campbell **QC Level:** LEVEL 2
Contact's Email: bryan.campbell@atcassociates.com **Comments:** **Date Logged:** 11/23/2016

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611B02-001A	V-1	SoilGas	TO17 with Helium as a Leak Check	1	Sorbent Tube	☐	11/23/2016 11:07	5 days		☐	
1611B02-001B	V-1	SoilGas	ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4>	1	1L Summa	☐	11/23/2016 11:07	5 days		☐	
			ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>			☐		5 days		☐	
1611B02-002A	V-2	SoilGas	TO17 with Helium as a Leak Check	1	Sorbent Tube	☐	11/23/2016 9:12	5 days		☐	
1611B02-002B	V-2	SoilGas	ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4>	1	1L Summa	☐	11/23/2016 9:12	5 days		☐	
			ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>			☐		5 days		☐	
1611B02-003A	Unused Summa	SoilGas	Unused Summa	1	1L Summa	☐	<Not Provided>	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Summa COC

MAI Work Order # 1611B02

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF | EDD | Write On (DW) | EQuIS

Report To: Bryan Campbell Bill To: ATC
Company: ATC Group Services
Email: Bryan.Campbell@atcassociates.com
Email: Tele:
Project Name/#: Oakland
Project Location: 150 17th St. PO #
Sampler Signature: Corbett

Analysis Requested

Helium Shroud SN#

Leak Check Default is IPA

Notes: Please specify units if different than default: VOCs is reported in µg/m³, fixed is reported in %.

SAMPLE ID Location / Field Point	Sampling Start Date	Sampling Start Time	End Time	Canister SN#	Sample Kit / Manifold #	VOCs TO-15 (µg/m³) - See Notes MTBE BTEX	~~8010 by TO-15 (µg/m³)~~ Naphthalene - TO-17	TPH(g) (µg/m³)	LEED: (inc. 4PCH, Formaldehyde, CO, Total VOCs)	Fixed Gas (CO_2, Methane, Ethane, Ethylene, Acetylene, Propane, CO) %	Fixed Gas: (O_2, ~~N_2~~) %	APH: Aliphatic and/or Aromatic (circle one) µg/m³	Helium Leak Check %	Leak Check (IPA, Norflurane, 1,1-difluroethane) µg/m³	CO_2, methane, helium	Matrix: Soilgas	Matrix: Indoor Air	Matrix:	Canister Pressure / Vacuum: Initial	Canister Pressure / Vacuum: Final
V-1	11/23/16	1100	1107			X	X				X				X	X			-30	-3
V-2	11/23/16	0905	0912			X	X				X				X	X			-30	-1

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	Comments / Instructions
Corbett / ATC	11/23/16	1424		11/23/16	1424	

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McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**ATC Group Services**	Date and Time Received	**11/23/2016 14:26**
Project Name:	**Oakland**	Date Logged:	**11/23/2016**
		Received by:	Jena Alfaro
WorkOrder №:	**1611B02** Matrix: SoilGas	Logged by:	Jena Alfaro
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	NA ☐
Sample/Temp Blank temperature	Temp:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

Comments: