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June 8, 2017

To: Ms. Kit Soo, P.G., Senior Hazardous Materials Specialist
Alameda County Environmental Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Acknowledgement Statement
Vapor Intrusion Assessment Report
Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California 94501
SLIC # RO0382
Geotracker Global ID # T0600100980

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

Carolyn C. Fong, Trustee

Carolyn C. Fong, Trustee
Claimant: Lily Angela Chun 1991 Living Trust
711 E. Hermosa Drive
San Gabriel, California 91775

June 7, 2017
Project No. 401896004

Ms. Kit Soo
Alameda County Environmental Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Vapor Intrusion Assessment Report
Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California
Fuel Leak Case #RO0382
GeoTracker Global ID #T0600100980

Dear Ms. Soo:

On behalf of Ms. Carolyn C. Fong, Trustee, Lily A. Chun 1991 Trust, Ninyo & Moore has prepared this Vapor Intrusion Assessment Report for the Bill Chun Service Station located at 2301 Santa Clara Avenue in Alameda, California (site; Figure 1). The immediate site vicinity is shown on Figure 2 and the site plan including well locations and remediation system location is shown on Figure 3. This Report was prepared to document the implementation of Ninyo & Moore's Vapor Intrusion Assessment Work Plan (Work Plan) dated February 3, 2017 which was requested in an Alameda County Department of Environmental Health (ACDEH) email dated October 31, 2016. The Work Plan presented a survey of sensitive receptors and an evaluation of underground utilities in the site vicinity. Presented below are our field activities and procedures for performing this soil vapor investigation and an assessment of current soil vapor conditions at the site and site vicinity. The Work Plan was conditionally approved in a directive letter from ACDEH dated March 17, 2017.

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1. SITE DESCRIPTION

The site is located at 2301 Santa Clara Avenue in the City and County of Alameda, California (Figure 1). The rectangular lot measures approximately 85 feet long by 40 feet wide. The site is occupied by a small vacant kiosk, a canopy, and a garage. The site is located in a mostly commercial area with some residential buildings, and is bordered by Oak Street to the northwest, a meeting hall and residences to the northeast and east, a retail store to the southeast (formerly Towata Flowers), and by Santa Clara Avenue to the southwest. The site vicinity is presented on Figure 2, with the site plan and adjacent properties presented on Figure 3.

2. BACKGROUND

The site is a former gasoline service station, and has been the subject of subsurface assessments, remedial actions, groundwater monitoring, and closure petitions since 1993, when three underground storage tanks (USTs) were removed. The site is listed as a Leaking Underground Storage Tank (LUST) facility in the State Water Resources Control Board (SWRCB) GeoTracker database and as a Leaking Underground Fuel Tank (LUFT) and Spills, Leaks, Investigation and Cleanup (SLIC) facility in the ACEH database.

3. SOIL VAPOR ASSESSMENT

Locations of the borings for soil sampling and soil vapor probe installation are shown on Figure 3. Location NMB-3B was intended to evaluate impacts near the northern site boundary. Locations NMB-6B and NMB-9B were intended to evaluate impacts near the eastern site boundary adjacent to the building at 2305 Santa Clara Avenue. Location NMB-11B was intended to evaluate impacts on the eastern side of the 2305 Santa Clara Avenue building which contains a slab on grade foundation. Location NMB-13 was intended to evaluate impacts beneath the north-adjacent 1510 Oak Street building. One soil boring (NMB-13) was advanced within the 1510 Oak Street building's basement which contains a concrete slab foundation that is approximately 4 feet below the surrounding grade. Location NMB-14 was advanced on the east side of the 2305 Santa Clara Avenue property to evaluate impacts at the boundary of the 2305 Santa Clara Avenue

and 2309 Santa Clara Avenue properties, both of which have slab on grade foundations. The locations of NMB-3B, NMB-6B, NMB-9B and NMB-11B correspond to locations where soil vapor samples have been collected in the past.

The ACDEH requested an additional soil vapor sample to be collected adjacent to groundwater monitoring well MW-12 in their March 2017 letter, and Ninyo & Moore added soil vapor probe number NMB-15 at this location. The ACDEH also requested that an air sample be collected in the crawl space accessed from the basement of the 1510 Oak Street property and near the location of NMB-13. This sample was collected and identified as crawl space indoor air sample IA-1.

3.1. Pre-Field Activities

Prior to field activities, the following pre-field activities were conducted:

- Ninyo & Moore conducted a site visit to inspect and mark-out the boring locations for the proposed soil vapor probes, and provided Underground Service Alert (USA) notification as required by California law.
- A drilling permit was obtained from the Alameda County Public Works Agency (ACPWA).

3.2. Soil Sampling and Soil Vapor Well Installation

On April 25, 2017, Ninyo & Moore contracted with VTS, LLC. (VTS) of Hayward, California, a State of California licensed C-57 drilling subcontractor to advance and install seven soil vapor borings at the site (Figure 3). Soil vapor boring locations NMB-3B, NMB-6B, NMB-9B, NMB-11B, and NMB-13 through NMB-15 were advanced by VTS using a 2.5-inch diameter hand auger under the guidance of a Ninyo & Moore field geologist to a depth of approximately 5.5 feet below ground surface (bgs). Soil samples were collected at 2.5 feet below ground surface and at 5.0 feet bgs. The sample collected from soil vapor boring NMB-11B at 5.0 feet bgs could not be analyzed because the sample container did not retain enough soil. Soil vapor boring location NMB-13 was advanced in the basement of the

1510 Oak Street property to approximately 4.0 feet below the bottom of the basement slab. The auger was not advanced deeper than four feet below slab because groundwater was encountered. Soil samples were collected from 2.5 and 4.0 feet below the slab.

Soil samples were collected in United States Environmental Protection Agency (US EPA) Method 5035 approved containers supplied by the analytical lab, placed in dedicated re-sealable containers and placed in an ice-filled cooler for transport to the analytical laboratory and analyzed for total petroleum hydrocarbons as gasoline (TPHg) by US EPA Method 8260B.

Subsequent to soil sample collection the borings were converted to soil vapor monitoring wells by installing ¼-inch diameter Teflon tubing and 1-inch long stainless steel micro-pore soil vapor screens set at various depths near the bottom of the borings. The soil vapor sample probe screen assembly was installed in the soil borings with a one-foot sand pack of 2/12 Monterey sand constructed around the screens at the appropriate depths. Soil vapor screen placement for each soil vapor well varied slightly depending on soil moisture conditions. In general, approximately 0.5 feet of dry bentonite seal was installed immediately above the sand pack and hydrated bentonite was emplaced as a seal from the dry bentonite seal to approximately 0.5-feet bgs. The wells were completed with traffic rated well boxes in concrete. Because groundwater was encountered at a shallower depth (4 feet below the slab) than the other borings, soil vapor well NMB-13 was completed to 3.0 feet below the basement slab, with the screen placed at 2.5 feet below the slab. This soil vapor well was constructed with sand between 2.0 to 3.0 feet, 0.5 feet of dry bentonite between 1.5 to 2.0 feet, and hydrated bentonite between 0.5 to 1.5 feet below the slab.

Wet soils encountered in soil vapor borings NMB-3B and NMB-9B may have been caused by the remediation system injection water and are likely not a sign that the stable groundwater elevation is 5 feet bgs in these locations.

A Soil Vapor Well Construction Diagram for each Vapor Well is included as Figures 4a-g.

3.3. Soil Vapor Sampling

On April 27, 2017, soil vapor sampling was conducted at the Site from the soil vapor monitoring wells by a Ninyo & Moore Professional Geologist. For each sample location, a 1-liter Summa© canister was collected for analysis of benzene, ethylbenzene, and naphthalene by United States EPA Method TO-15, and fixed gases oxygen, methane, and tracer gas helium by American Society for Testing and Materials (ASTM) Method D-1946.

For US EPA Method TO-15 and ASTM Method D-1946 sampling, stainless steel sampling manifolds were connected to the vapor wells, consisting of Swagelok® ball valves, using Teflon tubing and Swagelok® fittings. Vapor samples were collected using 1-liter Summa® vacuum canisters. Pre-sample purging was performed using a 6-liter Summa® vacuum canister. The manifolds, filters, gauges, flow controllers and Summa® canisters were supplied by a state-certified laboratory. The flow controller was pre-set by the laboratory to allow approximately 150 milliliters per minute (mL/min) flow rate.

Before the manifold was connected to the vapor sampling well with Teflon tubing, a shut-in test was performed by opening the purge canister. At the onset of the shut-in test the initial vacuum and time was recorded on vapor sampling data sheets included as Appendix A. The shut-in test continued for a minimum of two minutes. If the vacuum pressure remained constant, the test was considered successful (leak free). No leaks were detected during the shut-in tests.

Prior to collecting samples, a purge volume of the collection manifold and Teflon© tubing was calculated and one volume was purged. A combined tubing and manifold length of 8 feet was assumed for the purge volume calculation of the approximately five feet bgs vapor monitoring probes, respectively. The purge volume was calculated to be approximately 478 mL which is equivalent to a drop in Summa® canister vacuum pressure of approximately 2.39 in. Hg for the approximately 5 feet bgs vapor monitoring probes. The purge volume was monitored by the change in pressure. The purge beginning time, initial purge canister

vacuum, end time, and final vacuum were recorded on vapor sampling data sheets included as Appendix A.

Subsequent to purging, the purge canister valve was closed and the sample canister valve opened to begin sample collection. A tracer-gas shroud was placed over the sample train and helium gas was pumped into the shroud for the duration of sample collection in order to test for leaks in the remaining fittings and the well head integrity. Helium concentrations within the shroud were monitored by utilizing a helium meter and maintaining a minimum of 20% helium in the shroud for the duration of sampling. The sample collection was monitored by change in pressure in the sample canister. The sampling start time, initial sample canister vacuum, end time, and final vacuum were recorded on the vapor sampling data sheets. Sample canister valves were closed when the remaining vacuum was approximately -5 in. Hg. Sample canisters were not allowed to reach 0 in. Hg, which would indicate that no vacuum remained in the canister. Soil vapor samples were collected into 1-Liter Summa© canisters at a flow rate of approximately 150 milliliters per minute. Soil vapor sampling datasheets are included as Appendix A.

During soil vapor sampling at location NMB-13, groundwater was observed in the sample tubing and therefore this sample could not be analyzed.

As stated, an additional sample was collected at the request of the ACDEH in the crawl space accessed from the basement at 1510 Oak Street. Ninyo & Moore collected an 8-hour crawl space indoor air sample (sample IA-1) in a 6-Liter Summa© canister using a flow controller set to approximately 12.6 milliliters per minute. The IA-1 canister was set in the crawl space at 07:30 in the morning, and was collected approximately 8-hours later at approximately 15:25, just prior to collection of the adjacent NMB-13 soil vapor sample. Because elevated concentrations of TPHg were observed during the installation of NMB-13, the IA-1 indoor air sample was removed from the 1510 Oak Street crawl space prior to opening the nearby NMB-13 well box (which was sealed during construction) in order to prevent any possible cross-contamination of the indoor air.

Subsequent to sample collection, the Summa© canisters were identified with the sample number, canister pressures or flow rate, location, date, time, and analytical methods, and placed into packing boxes with completed chain-of-custody documentation and transported to the analytical laboratory. Summa® samples were not chilled to prevent condensation of the collected gases.

4. LABORATORY ANALYTICAL RESULTS AND SCREENING LEVELS

Soil samples were analyzed by TestAmerica Laboratories Inc. (TestAmerica) of Pleasanton, California. Soil vapor samples and the crawl space indoor air sample were analyzed by McCampbell Analytical laboratory (McCampbell) in Pittsburgh, California. Soil and soil vapor analytical results were compared to the San Francisco Bay Regional Water Quality Control Board's (RWQCB) Low-Threat Underground Storage Tank (UST) Case Closure Policy, media-specific criteria 2 (petroleum vapor intrusion to indoor air), scenario 4. The crawl space indoor air sample result was compared to the Environmental Screening Level (ESL), for shallow soil, direct exposure human health risk levels (Table S-1); dated February 2016; established by the RWQCB.

4.1. Soil Analytical Results

Soil samples were analyzed by TestAmerica for TPHg by US EPA Method 8260B. Soil analytical results are presented in Table 1, and TestAmerica Certified Laboratory Analytical Report is presented in Appendix B. The results of the soil sample analysis include the following:

- In two of 13 soil samples (NMB-13-2.5 and NMB-13-4.0), TPHg was reported at concentrations greater than laboratory reporting limits at concentrations of 12,000 and 8,600 milligrams per kilogram (mg/Kg), respectively. The reported detections exceeded the RWQCB Low-Threat UST Case Closure Policy value of 100 mg/kg for criteria 2, scenario 4. This boring was located in the basement of the adjacent building at 1510 Oak Street and was installed in a 4 foot below grade basement slab. TPHg was not detected above the laboratory reporting limit in any of the remaining soil samples.

4.2. Soil Vapor Analytical Results

Soil vapor samples and the crawl space indoor air sample were analyzed by McCampbell for benzene, ethylbenzene and naphthalene by US EPA Method TO-15, and fixed gases (i.e., oxygen, methane and the tracer gas helium) by ASTM Method D-1946. Soil vapor analytical results are included in Table 2, and the McCampbell certified laboratory analytical report is included in Appendix B. The laboratory analytical results are discussed below.

Soil vapor analytical results were compared to the San Francisco Bay Regional Water Quality Control Board's Low-Threat Underground Storage Tank (UST) Case Closure Policy, media-specific criteria 2 (petroleum vapor intrusion to indoor air), scenario 4. Soil vapor and crawl space indoor air analytical results as Fixed Gases and select VOCs are presented in Table 2 and summarized below.

- The tracer gas Helium was detected in 2 of the 7 analyzed soil vapor samples (NMB-11B and NMB-14) at concentrations of 1.9 and 0.25%. Average helium concentrations within the tracer-gas shroud were documented as 27.9% and 25.0%, respectively during the sampling procedure. Calculations of percent ambient air leakage are thus 6.8% and 0.01% for samples NMB-11B and NMB-14. This indicates that the soil vapor probe assembly and/or well completion may have been slightly compromised for sample NMB-11B, and as a result the sample may have been slightly diluted. The NMB-14 sample is within acceptable limits and is considered valid. A calculated leakage of 5% or less is considered acceptable according to the California EPA/RWQCB document *Advisory: Active Soil Gas Investigations* dated July 2015.

- Oxygen was detected at concentrations below the atmospheric percentage of 20.946% in all samples. Concentrations of oxygen at levels approaching the atmospheric concentrations may be indicative of atmospheric intrusion into soil vapor samples from the surface, however, these concentrations were not observed in any samples. Oxygen was detected at concentrations above 4% in all samples except NMB-6B. Oxygen concentrations greater than 4% may be indicative of a bio-attenuation zone.

- Methane was detected at concentrations above the atmospheric percentage of 0.000179% in soil vapor probe samples NMB-3B and NMB-6B, and in the crawl space sample IA-1. Concentrations of methane at levels above that of the earth's atmosphere may be indicative of the degradation of petroleum hydrocarbons and VOCs in the subsurface. In addition, the methane concentrations are below 10% of the lower explosive limits (LEL) for methane (0.5% by volume).

- Benzene was detected in four soil vapor samples at concentrations ranging from 12 µg/m^3 (NMB-14) to 500 µg/m^3 (NMB-3B), and was several orders of magnitude below both the residential and Commercial RWQCB Low-Threat UST Case Closure Policy screening levels for benzene. Benzene was also detected in the crawl space indoor air sample IA-1 at a concentration of 1.1 µg/m^3 which is above the commercial/Industrial ESL for Indoor Air; Direct Exposure Human Health Risk Levels (Table IA-1) established by the RWQCB, February 2016.

- Ethylbenzene was detected in three samples at concentrations ranging from 15 µg/m^3 (NMB-14) to 1,500 µg/m^3 (NMB-3B), which were several orders of magnitude below the RWQCB Low-Threat UST Case Closure Policy screening levels. Ethylbenzene was not detected above the laboratory reporting limit in the crawl space indoor air sample IA-1.

- Naphthalene was detected at concentrations ranging from 8.9 µg/m^3 (NMB-9B) to 28 µg/m^3 (NMB-3B), which were several orders of magnitude below the Low Threat Closure screening levels. Naphthalene was also detected in the crawl space indoor air sample at a concentration of 0.57 µg/m^3 which is above the commercial/Industrial ESL for Indoor Air of 0.36 µg/m^3 for naphthalene.

5. SAMPLE QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The analytical data obtained from the sampling activities were assessed for QA/QC in order to ensure that the data met the requirements for its intended use. QA/QC procedures were implemented during the sampling to assure that the project's data quality objectives (DQOs) were achieved so that the sample, analysis and reporting activities provide data that are accurate, precise, representative and legally defensible.

This project's QC/QA tasks included maintaining appropriate field documentation, and sample collection following standard environmental sampling and handling methodology, including use of all dedicated soil vapor sample train equipment, precluding decontamination between sample locations. QC samples such as duplicates and equipment blanks were not warranted for this limited investigation.

Helium was used as a tracer gas in the soil vapor sampling shroud, which completely surrounded the wellhead and soil vapor sample train. Helium was detected in just one of the analyzed soil vapor samples at 6.8% in NMB-11B which is slightly above the 5% permissible limit. This

indicates that the soil vapor sample train and all wellhead components maintained integrity during the soil vapor sampling and that no leakage of ambient air or sample dilution occurred, with the exception of NMB-11B.

Ninyo & Moore reviewed and confirmed the analytical laboratory reports. All samples were submitted in accordance with the US EPA analytical procedures and analyzed within their respective holding times.

Two soil sample extractions NMB-6B-2.5 and NMB-9B-2.5 were diluted and had elevated reporting limits due to significant carry-over from previous runs in the batch. However reporting limits were below screening levels and so this data was useful and considered valid.

Soil vapor sample NMB-6B had a surrogate recovery outside of control limits due to matrix interference, and the sample was diluted due to a cluttered chromatogram and due to high organic content. Therefore elevated reporting limits for this sample yielded an unusable result. No other significant analytical testing problems were encountered. No significant issues were identified by the labs on their internal QC samples.

Based on this review, Ninyo & Moore concludes that the projects DQOs have been achieved with the above noted qualifiers, and the reported analytical data is acceptable for use.

6. SUMMARY

On April 25, 2017, Ninyo & Moore mobilized to the Site to begin a limited soil vapor investigation with the installation of soil vapor wells NMB-3B, NMB-6B, NMB-9B, NMB-11B, and NMB-13 through NMB-15. Fourteen soil samples were collected and submitted for analysis of TPHg. Sample NMB-11B-5.0 did not retain enough soil in the sample container to perform the sample analysis. TPHg was detected at concentrations exceeding the RWQCB Low-Threat UST Case Closure Policy screening level in the two samples collected in boring NMB-13 at 2.5 and 4.0 feet below the basement slab and beneath the 1510 Oak Street building. These two samples were moist to wet due to shallow groundwater conditions

On April 27, 2017 soil vapor samples were collected from the seven soil vapor wells installed. . Due to shallow groundwater conditions, soil vapor probe NMB-13 was installed at 2.5 feet below the basement slab and, during sample collection groundwater was observed in the sample-train and as a result the sample could not be analyzed. Laboratory analyses of the remaining soil vapor samples detected low concentrations of benzene, ethylbenzene, and naphthalene above laboratory reporting limits, but below the RWQCB Low-Threat UST Case Closure Policy screening levels. Analysis of fixed gases did detect the tracer gas helium in one sample (NMB-11B) at slightly greater than permissible concentrations, indicating that the soil vapor sample train or wellhead construction contained a leak, did not maintain integrity, or the soil vapor well short-circuited with the atmosphere. In either case, minor sample dilution did occur.

The reported greater than-atmospheric concentrations of methane indicated that the breakdown of VOCs and TPHg constituents is occurring. Concentrations of methane were below 10% of the LEL for methane (equivalent to 0.5% methane by volume) which indicates that there is not a potential explosive hazard due to methane.

Indoor air samples collected from the crawl space at 1510 Oak Street indicated that benzene (reported at 1.1 µg/m^3) and naphthalene (reported at 0.57 µg/m^3) vapors exceeded their respective RWQCB Indoor Air Commercial/Industrial ESL. However, based on documented studies, the average background concentrations of benzene in outdoor urban air from eight cities indicate a benzene concentration of 1.09 µg/m^3 may be considered typical (McCarthy et. al., 2006). In addition, background indoor concentrations of naphthalene range from 0.18 to 1.7 according to a review of 21 studies performed between 1985 and 2006 (Jia and Batterman, 2010). Therefore, the concentrations of benzene and naphthalene reported in the crawl space may be related to ambient conditions.

7. CONCLUSIONS AND RECOMMENDATIONS

The Ninyo & Moore vapor intrusion study for the Chun facility indicates that the site meets the criteria outlined in the Low-Threat Underground Storage Tank Case Closure Policy for vapor

intrusion with the exception of the high concentrations of TPHg in the soil samples collected from NMB-13. Because these samples were likely impacted by contaminants in groundwater, the results are not representative of vadose zone soils on site.

Because of the difficulty of collecting an unsaturated soil vapor sample beneath the 1510 Oak street building, Ninyo & Moore recommends the installation of a sub-slab soil vapor probe and the collection of a sub-slab soil vapor sample in this location. We also recommend re-sampling the NMB-11B soil vapor well where detections of tracer gas exceeded permissible limits, which indicates possible sample dilution.

The soil vapor wells should be retained and resampled again in the future, if needed.

8. LIMITATIONS AND EXCEPTIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil, soil-gas and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

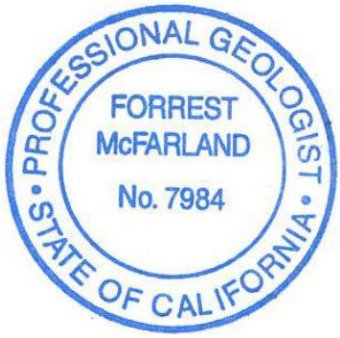
Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This report is intended exclusively for use by the Lily Chun 1991 Living Trust. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the Lily Chun 1991 Living Trust is undertaken at said parties' sole risk.

We appreciate the opportunity to submit this letter report, and look forward to working with you on future projects.

Respectfully submitted,
NINYO & MOORE



Forrest McFarland, PG 7984
Senior Environmental Geologist

Peter D. Sims
Project Manager

FSM/KML/vmn

Attachments: References

Figure 1 – Site Location Map
Figure 2 – Site Vicinity Map
Figure 3 – Site Plan with Soil Vapor Sampling Locations
Figure 4a-g – Soil Vapor Well Construction Diagrams

Table 1 – Soil Analytical Results: TPH as gasoline
Table 2 – Soil Vapor Analytical Results: Benzene, Ethylbenzene and Naphthalene, and Fixed Gases Oxygen, Methane, and Helium

Appendix A – Soil Vapor Sampling Datasheets
Appendix B –Laboratory Analytical Reports

Distribution: (1) Addressee
(2) Lily Angela Chun 1991 Living Trust

REFERENCES

DTSC/RWQCB, 2015, Advisory – Active Soil Gas Investigations, dated July.

Jia, Chunrong and Batterman, Stuart, 2010, A Critical Review of Naphthalene Sources and Exposures Relevant to Indoor and Outdoor Air.

McCarthy et.al., 2006, Background Concentrations of 18 Air Toxics for North America, Michael C. McCarthy, Hilary R. Hafner & Stephen A. Montzka; Journal of the Air & Waste Management Association, 56:1, 3-11, DOI: 10.1080/10473289.2006.10464436

Ninyo & Moore, 2017, Vapor Intrusion Assessment Work Plan Bill Chun Service Station. 2301 Santa Clara Avenue, Alameda, California; Fuel Leak Case #RO0382; dated February, 3.

RWQCB, 2012, Low-Threat Underground Storage Tank Case Closure Policy, dated August 17.

REFERENCE: METRO AREAS OF ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES, THOMAS GUIDE, 2008.

N

SCALE IN FEET

0 2000 4000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 401896004	DATE 3/17	2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA	1

401896004-FIG1.dwg, 03/14/2017, AOB, JP

REFERENCE: GOOGLE EARTH, 2012.

N

SCALE IN FEET

0 40 80

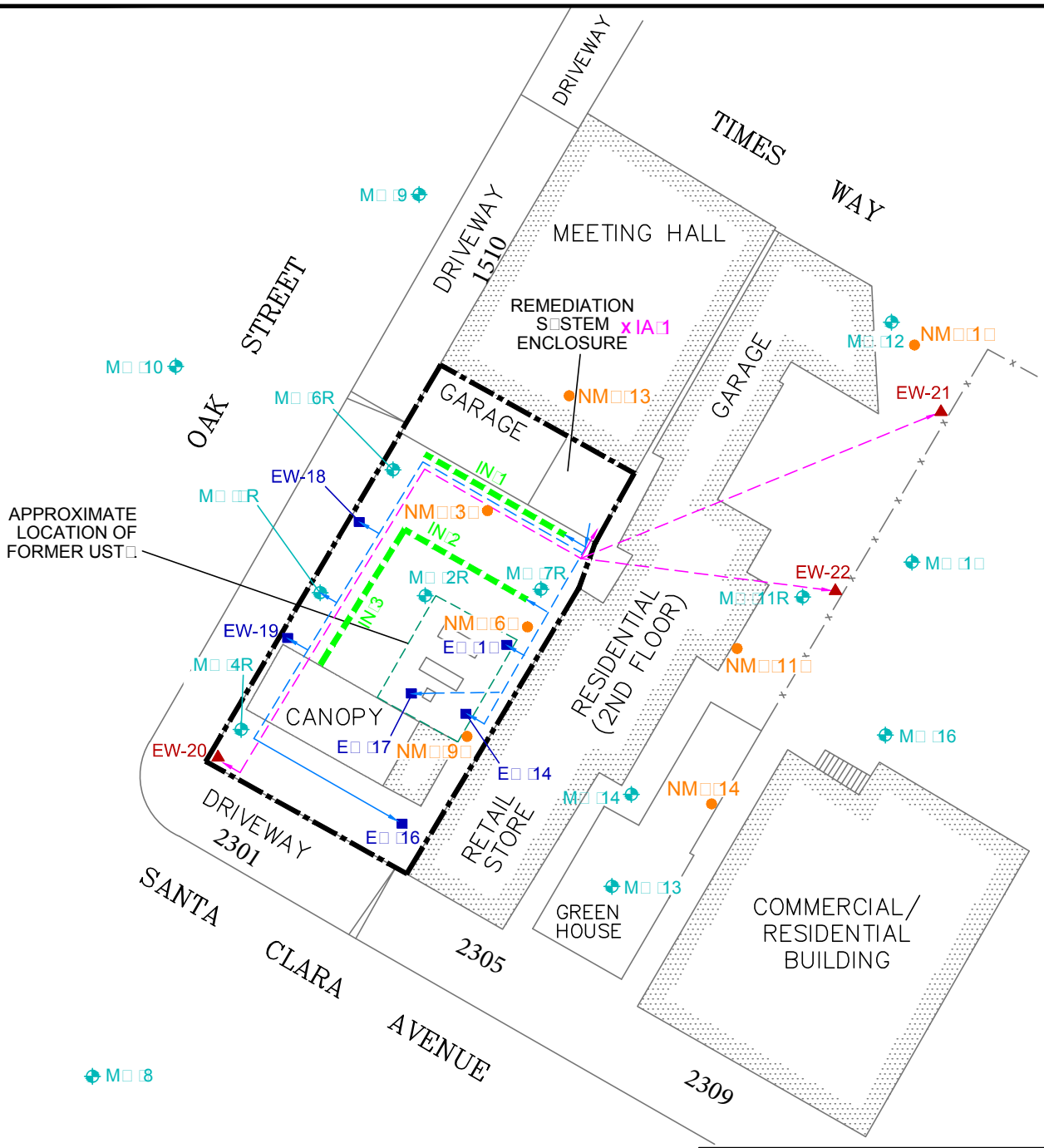
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

APPROXIMATE SITE BOUNDARY

Ninyo & Moore		SITE VICINITY	FIGURE
PROJECT NO.	DATE	2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA	2
401896004	3/17		

401896004-FIG2.dwg, 03/14/2017, AOB_JP



LEGEND

IA-1 x	CRAWL SPACE INDOOR AIR SAMPLE LOCATION
NM-1 ●	SOIL VAPOR BORING LOCATION
	APPROXIMATE SITE BOUNDARY
— x —	FENCE
	EXTRACTION WATER SUPPLY LINE AND POWER CONDUIT
	INJECTION WATER SUPPLY LINE
	SLOTTED HORIZONTAL INJECTION PIPING CONTOUR
M-16 ⊕	GROUNDWATER MONITORING WELL
E-22 ▲	GROUNDWATER EXTRACTION WELL
E-19 ■	GROUNDWATER INJECTION WELL

N

SCALE IN FEET

0 30 60

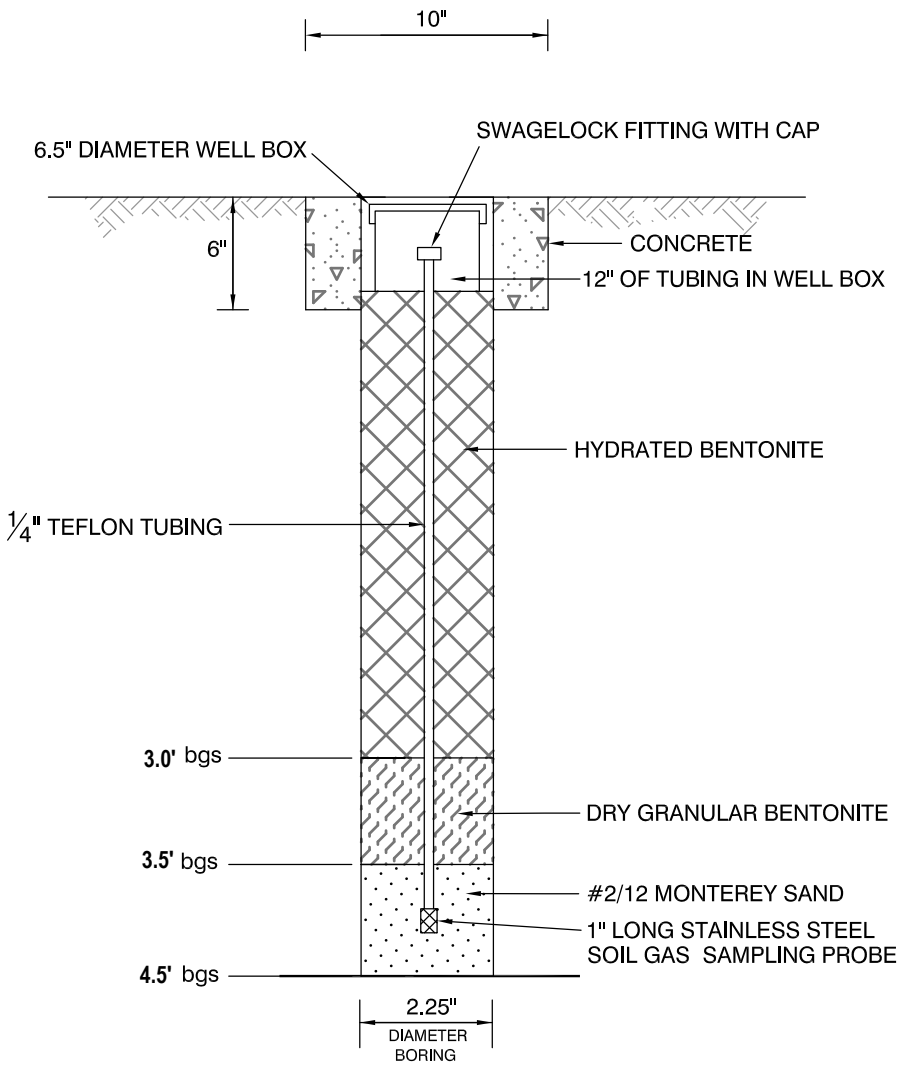
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVE- LAND SURVE-ING, 2012.

Ninyo & Moore		SITE PLAN WITH SOIL VAPOR BORING LOCATIONS	FIGURE
PROJECT NO.	DATE	2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA	3
401896004	-/17		

February 2017 V:\A WP\401896004-FIG2 SPSV.dwg AOB

Soil Vapor Well Construction Diagram: NMB-3B

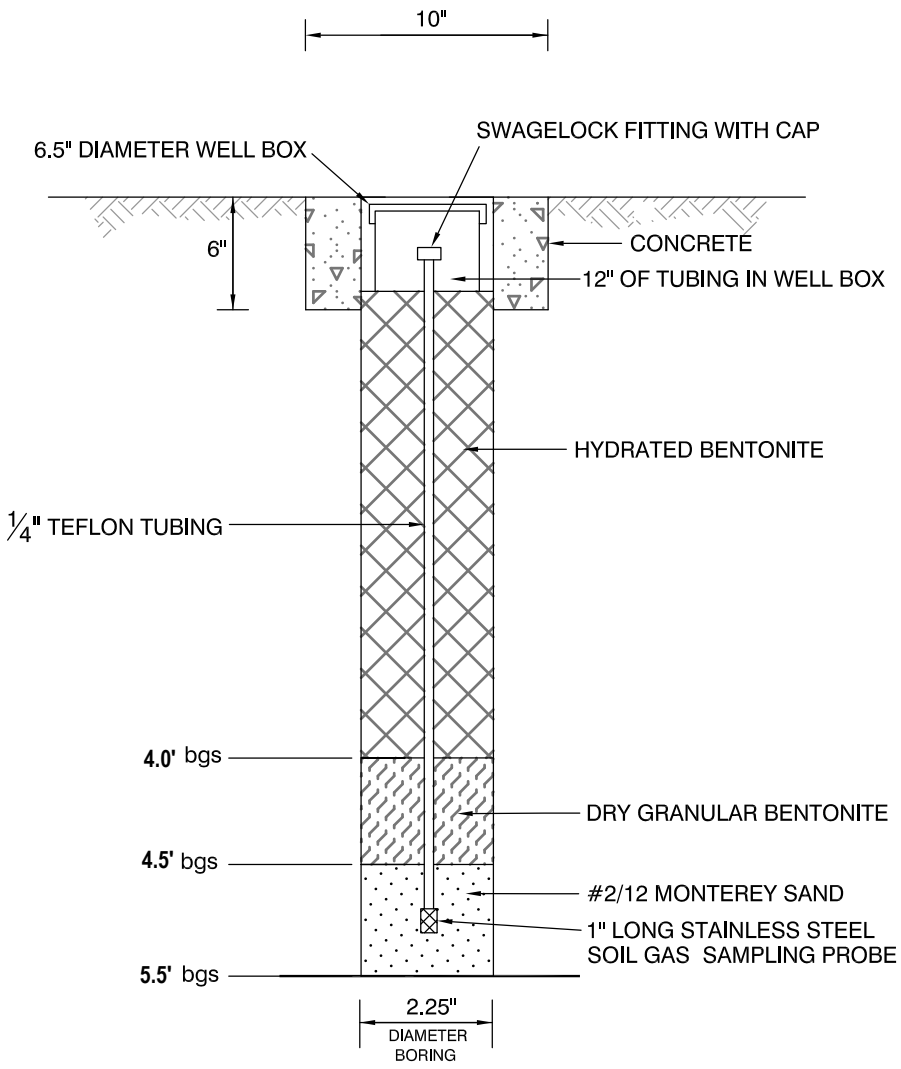


NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4a
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-6B

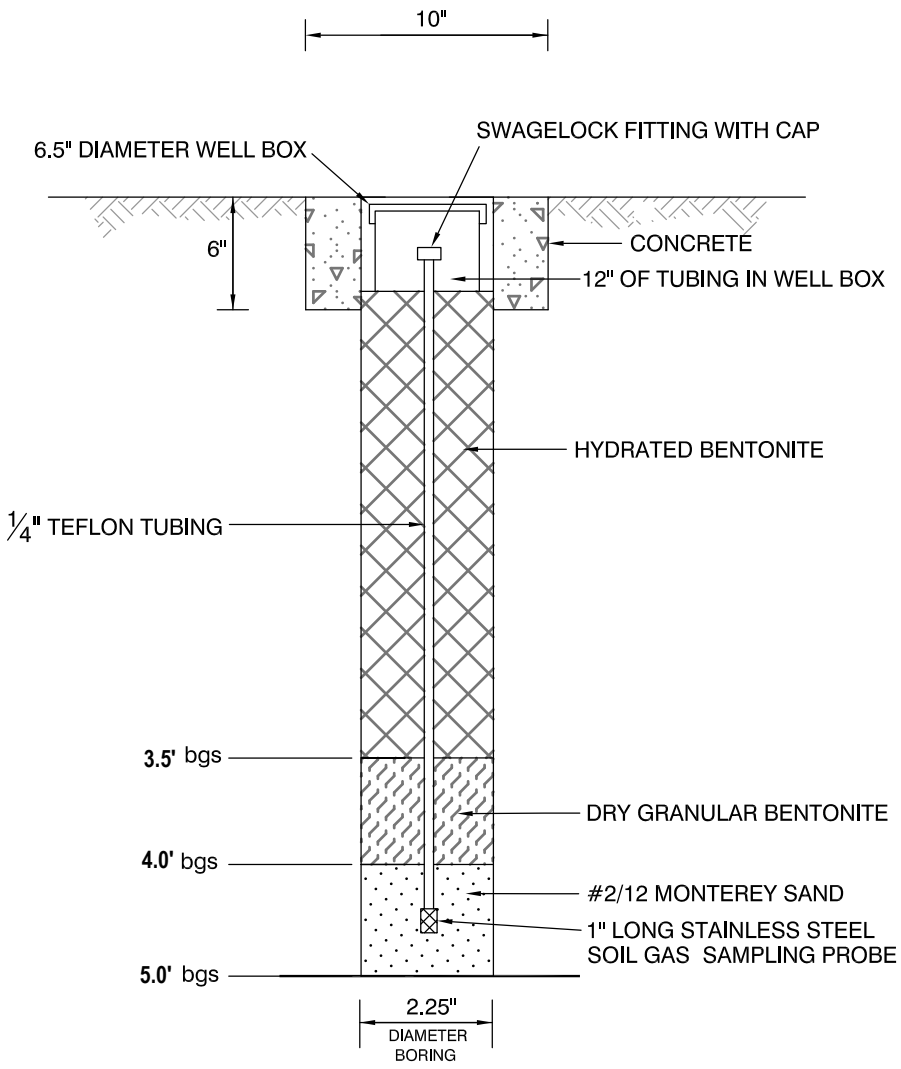


NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4b
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-9B

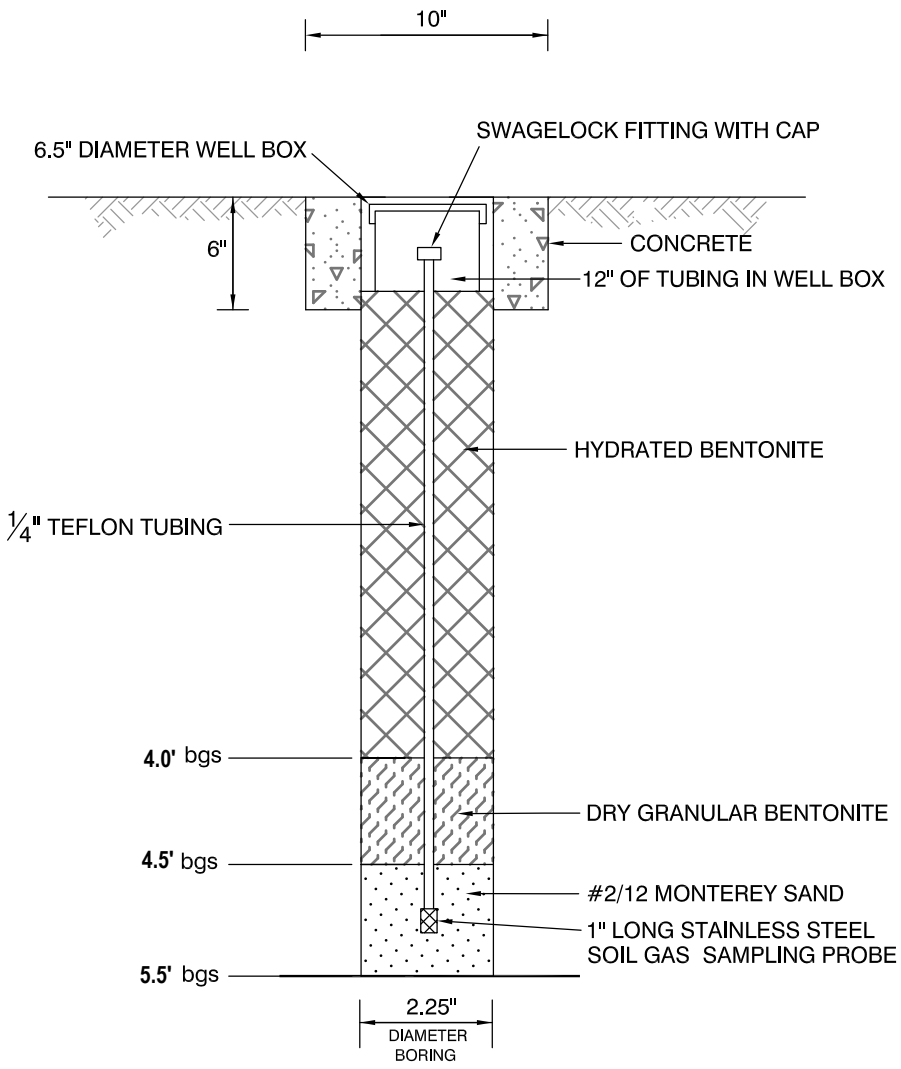


NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4c
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-11B

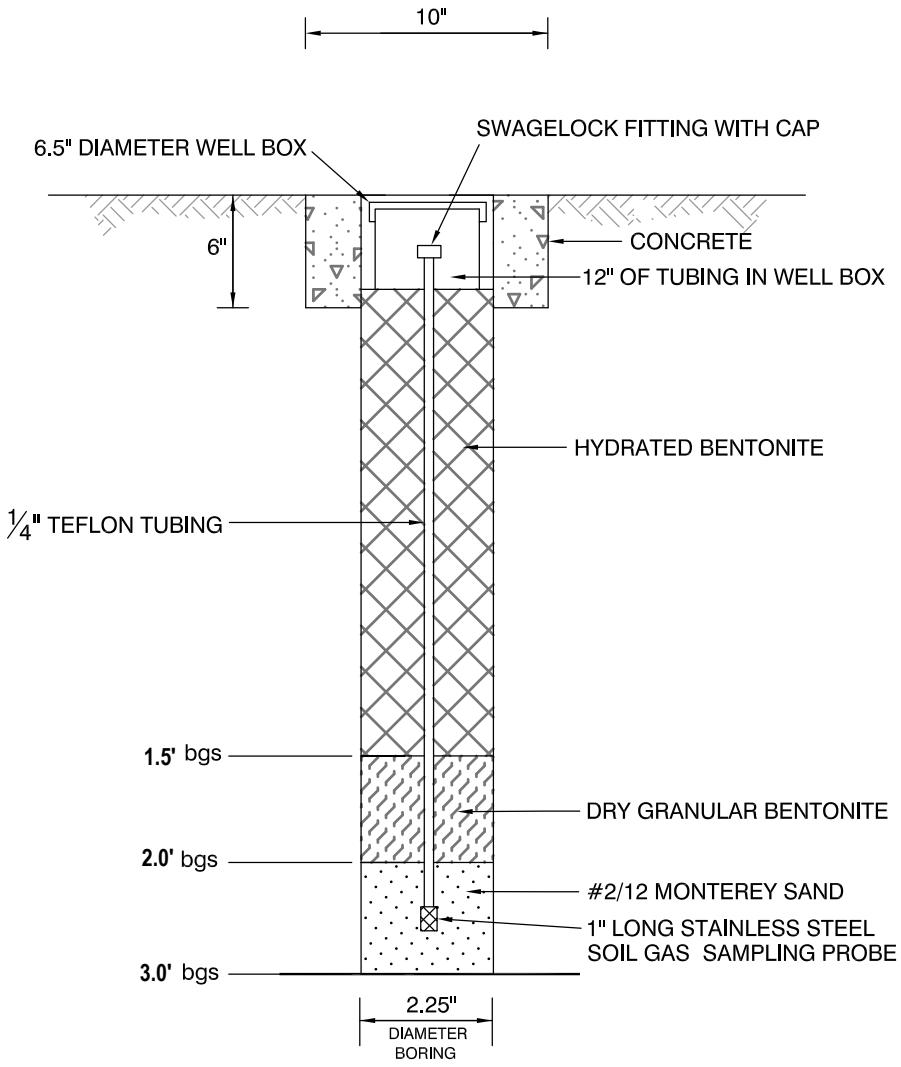


NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4d
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-13



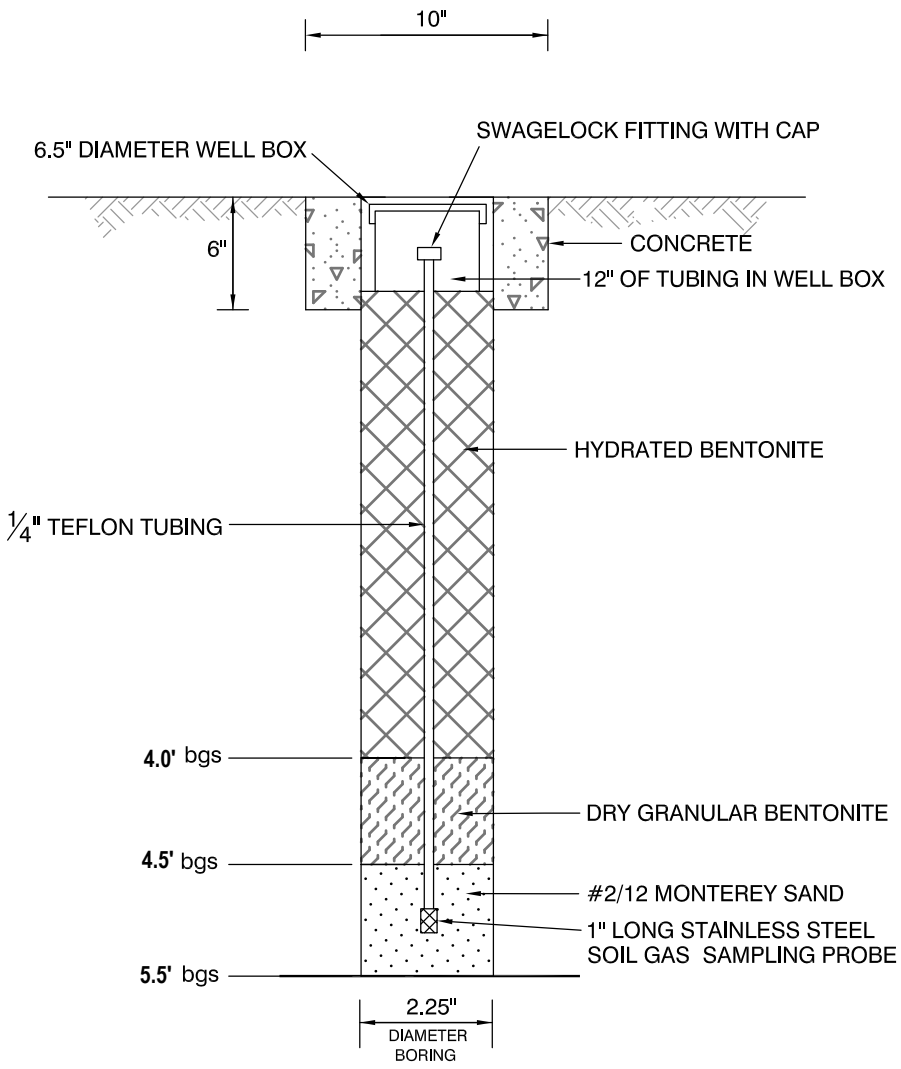
Shallow groundwater encountered at 4.0 feet: Backfill to 3.0 feet below ground surface

NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4e
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-14

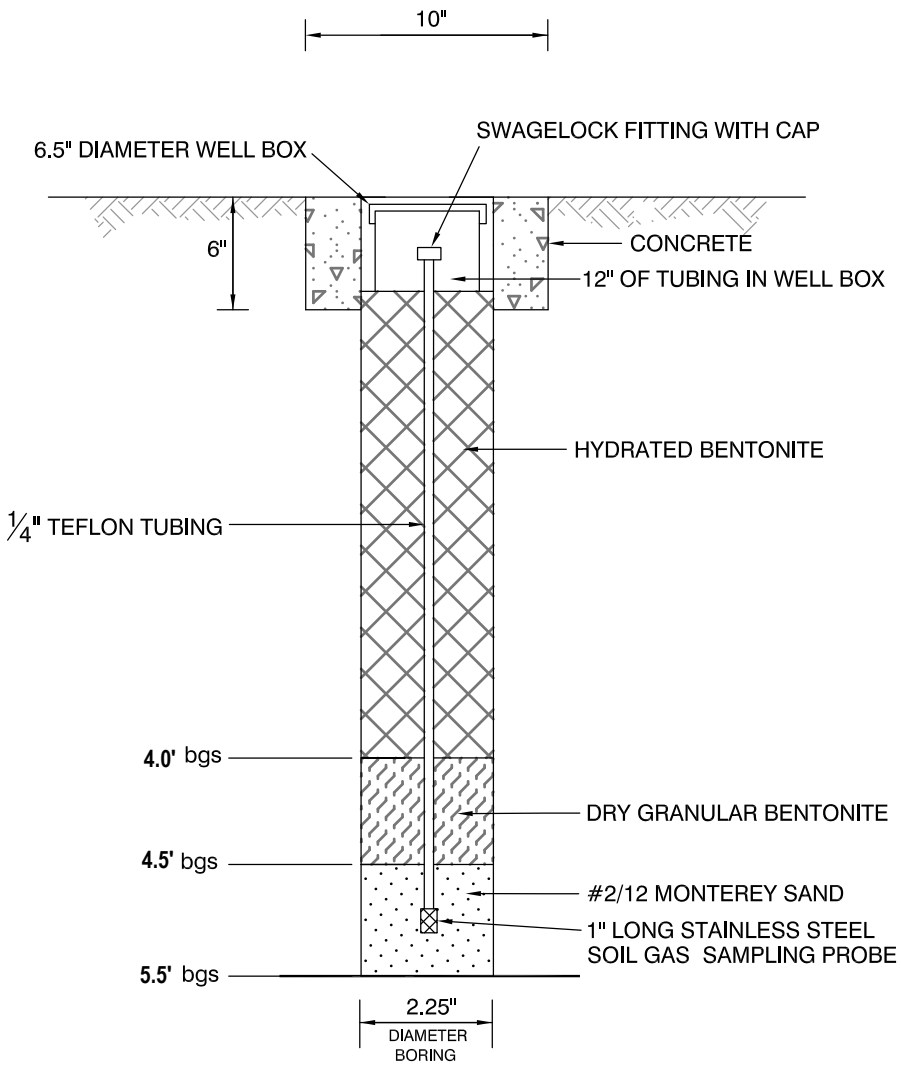


NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4f
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

Soil Vapor Well Construction Diagram: NMB-15



NOT TO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	TEMPORARY SOIL VAPOR WELL CONSTRUCTION DIAGRAM	FIGURE 4g
PROJECT NO. 401896004 / DATE 5/17	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, California	

APPENDIX A

SOIL VAPOR SAMPLING DATASHEETS

Soil Vapor Sample Collection Data

NMB-9B

Client: Chevron | Date: 4/23/14

Project Number: 401896004

Site Location: 2301 Santa Clara, Alameda

Field Personnel: #501

Type of Probe and Advancement Method: SV / HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	6406-793					
	Flow Controller Serial No.	316.770					
	Sample Depth (Ft.)	5'					
	Tubing length	8'					
	Purge Volume and Rate	3" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	0812					
	Initial Canister Vacuum (inches Hg)	-29"					
	Time Sample-Train Vacuum-Hold Test Ends	0816					
	Duration of Vacuum-Hold Test	4 min					
	Final Canister Vacuum (inches Hg)	-29"					
Purge	Time Beginning of Purge	0817	-29" → -26"				
	Time End of Purge	0830					
	Actual Duration of Purge	3 min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-29"					
	Time Canister Opened	0830					
	Measured Helium % initial	—					
	2 min.	23.7	35 min.		2 min.		35 min.
	4 min.	23.1	40 min.		4 min.		40 min.
	6min.	22.5	45 min.		6min.		45 min.
	8min.		50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	0836					
	Final Canister Pressure (inches Hg)	-5"					
	Time of Sample Collection	0836					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-6B

Client: Chevron Date 7/27/17

Project Number: 401896004

Site Location: 2301 Santa Clara Ave, Alameda

Field Personnel ESM

Type of Probe and Advancement Method SV / HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	7527-875					
	Flow Controller Serial No.	316-1347					
	Sample Depth (Ft.)	5					
	Tubing length	8'					
	Purge Volume and Rate	5" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	0859					
	Initial Canister Vacuum (inches Hg)	-27.5					
	Time Sample-Train Vacuum-Hold Test Ends	0859					
	Duration of Vacuum-Hold Test	2 min.					
	Final Canister Vacuum (inches Hg)	~27.5					
Purge	Time Beginning of Purge	0902	-27.5 →		-24.5"		
	Time End of Purge	0906					
	Actual Duration of Purge	4 min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-31"					
	Time Canister Opened	0906					
	Measured Helium % initial	0					
	2 min.	27.3	35 min.		2 min.		35 min.
	4 min.	26.7	40 min.		4 min.		40 min.
	6min.	24.2	45 min.		6min.		45 min.
	8min.	22.0	50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	0914					
	Final Canister Pressure (inches Hg)	-4"					
	Time of Sample Collection	0914					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-3B

Client: Chevron

Date 4/27/17

Project Number: 401896004

Site Location: 2501 Santa Clara, Alameda

Field Personnel FSM

Type of Probe and Advancement Method SV/HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	7531-879					
	Flow Controller Serial No.	316-1328					
	Sample Depth (Ft.)	~4'					
	Tubing length	7'					
	Purge Volume and Rate	3" H_2O					
	Calculated Duration of Purge (3 tubing volumes)	3" H_2O					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	0933					
	Initial Canister Vacuum (inches Hg)	-25"					
	Time Sample-Train Vacuum-Hold Test Ends	0933					
	Duration of Vacuum-Hold Test	2 min					
	Final Canister Vacuum (inches Hg)	-25"					
Purge	Time Beginning of Purge	0935	-25" → +22				
	Time End of Purge	0940					
	Actual Duration of Purge	5 min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-31					
	Time Canister Opened	0940					
	Measured Helium % initial	0					
	2 min.	25.9	35 min.		2 min.		35 min.
	4 min.	24.0	40 min.		4 min.		40 min.
	6min.	21.9	45 min.		6min.		45 min.
	8min.	20.4	50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	0947					
	Final Canister Pressure (inches Hg)	-4"					
	Time of Sample Collection	0947					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-15			Client: Chevron				Date 4/27/17
			Project Number: 401896004				
			Site Location: Times Alley				
2730 Shadelands Dr. Walnut Creek, CA T 925.946.3100 F 510.350.9988 www.itsi.com			Field Personnel FSM Type of Probe and Advancement Method SU / HA				
	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	7528-876					
	Flow Controller Serial No.	316-717					
	Sample Depth (Ft.)	5'					
	Tubing length	8'					
	Purge Volume and Rate	3" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	1015					
	Initial Canister Vacuum (inches Hg)	-31"					
	Time Sample-Train Vacuum-Hold Test Ends	1017					
	Duration of Vacuum-Hold Test	2 min					
	Final Canister Vacuum (inches Hg)	-31"					
Purge	Time Beginning of Purge	1018	-31" → -28"				
	Time End of Purge	1023					
	Actual Duration of Purge	5 min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-30					
	Time Canister Opened	1023					
	Measured Helium % initial	0					
	2 min.	29.9	35 min.		2 min.		35 min.
	4 min.	27.7	40 min.		4 min.		40 min.
	6min.	26.8	45 min.		6min.		45 min.
	8min.	25.6	50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	1031					
	Final Canister Pressure (inches Hg)	-5"					
	Time of Sample Collection	1031					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-11-B

Client: Chevron | Date 4/27/17

Project Number: 401896004

Site Location: 2305 Santa Clara, Alameda

Field Personnel FSM

Type of Probe and Advancement Method SV / HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

Sample Data	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
	Canister Serial No.	1978-1926					
	Flow Controller Serial No.	316-1327					
	Sample Depth (Ft.)	5'					
	Tubing length	8'					
	Purge Volume and Rate	3" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	1217					
	Initial Canister Vacuum (inches Hg)	-28					
	Time Sample-Train Vacuum-Hold Test Ends	1219					
	Duration of Vacuum-Hold Test	2 min					
	Final Canister Vacuum (inches Hg)	-28"					
Purge	Time Beginning of Purge	1222	-28 → -25				
	Time End of Purge	1226					
	Actual Duration of Purge	4 min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-31"					
	Time Canister Opened	1226					
	Measured Helium % initial	0					
	2 min.	29.3	35 min.		2 min.		35 min.
	4 min.	27.7	40 min.		4 min.		40 min.
	6min.	26.6	45 min.		6min.		45 min.
	8min.		50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	1232					
	Final Canister Pressure (inches Hg)	-4					
	Time of Sample Collection	1232					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-14

Client: CH4N | Date 4/27/07

Project Number: 401896004

Site Location: 2305 Santa Clara

Field Personnel FSM

Type of Probe and Advancement Method SV / HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	6204-748					
	Flow Controller Serial No.	316-845					
	Sample Depth (Ft.)	5'					
	Tubing length	8'					
	Purge Volume and Rate	3" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	1253					
	Initial Canister Vacuum (inches Hg)	-24.5					
	Time Sample-Train Vacuum-Hold Test Ends	1255					
	Duration of Vacuum-Hold Test	2min					
	Final Canister Vacuum (inches Hg)	-24.5					
Purge	Time Beginning of Purge	1308	24.5 → 21.5"				
	Time End of Purge	1313					
	Actual Duration of Purge	5min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-31					
	Time Canister Opened	1313					
	Measured Helium % initial	0					
	2 min.	26.6	35 min.		2 min.		35 min.
	4 min.	25.1	40 min.		4 min.		40 min.
	6min.	23.2	45 min.		6min.		45 min.
	8min.		50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	1319					
	Final Canister Pressure (inches Hg)	-4"					
	Time of Sample Collection	1319					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Soil Vapor Sample Collection Data

NMB-13

Client: CHMD

Project Number: 401896004

Site Location: 1515 Dale St., Alameda

Date: 4/23/17

Field Personnel: ESM

Type of Probe and Advancement Method: SV / HA

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	R1218-2551					
	Flow Controlier Serial No.	316-1336					
	Sample Depth (Ft.)	4'					
	Tubing length	7'					
	Purge Volume and Rate	3" Hg					
	Calculated Duration of Purge (3 tubing volumes)	3" Hg					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	1505					
	Initial Canister Vacuum (inches Hg)	-21.5					
	Time Sample-Train Vacuum-Hold Test Ends	1507					
	Duration of Vacuum-Hold Test	2 min					
	Final Canister Vacuum (inches Hg)	-21.5"					
Purge	Time Beginning of Purge	1521	21.5 → -18.5				
	Time End of Purge	1526					
	Actual Duration of Purge	5 Min					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-29"					
	Time Canister Opened	1526	@ 1529		Notice there is		
	Measured Helium % initial	0	Liquids in tubing Abort				
	2 min.	29.8	35 min.		2 min.		35 min.
	4 min.	27.7	40 min.		4 min.		40 min.
	6min.		45 min.		6min.		45 min.
	8min.		50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	1528					
	Final Canister Pressure (inches Hg)	-26					
	Time of Sample Collection	NO	Sample				

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

Smells of TPHg

Soil Vapor Sample Collection Data

IA-1

Client: CHuN

Project Number: 401896004

Site Location: 1510 Oak Street, Alameda CA

Field Personnel FSM

Type of Probe and Advancement Method Indoor Air / Crawl Space Sample

Date 4/27/17

2730 Shadelands Dr. Walnut Creek, CA
T 925.946.3100 F 510.350.9988 www.itsi.com

	Sample ID	Sample Info / Times	Comments		Duplicate Sample ID	Duplicate Info / Times	Comments
Sample Data	Canister Serial No.	2735-558					
	Flow Controller Serial No.	1051					
	Sample Depth (Ft.)	—					
	Tubing length	~					
	Purge Volume and Rate	~					
	Calculated Duration of Purge (3 tubing volumes)	~					
10-Minute Vacuum-Hold Test	Time Sample-Train Vacuum-Hold Test Begins	~					
	Initial Canister Vacuum (inches Hg)	~					
	Time Sample-Train Vacuum-Hold Test Ends	~					
	Duration of Vacuum-Hold Test	~					
	Final Canister Vacuum (inches Hg)	~					
Purge	Time Beginning of Purge	~					
	Time End of Purge	~					
	Actual Duration of Purge	~					
Sample Collection and Tracer Gas Monitoring	Initial Canister Vacuum (inches Hg)	-29.5					
	Time Canister Opened	0785					
	Measured Helium % initial						
	2 min.	NA	35 min.		2 min.		35 min.
	4 min.		40 min.		4 min.		40 min.
	6min.		45 min.		6min.		45 min.
	8min.		50 min.		8min.		50 min.
	10 min.		55 min.		10 min.		55 min.
	15 min.		60 min.		15 min.		60 min.
	20 min.		____ min.		20 min.		____ min.
	25 min.		____ min.		25 min.		____ min.
	30 min.		____ min.		30 min.		____ min.
	Comments		____ min.		Comments		____ min.
	Time Canister Closed	1520					
	Final Canister Pressure (inches Hg)	-5"					
	Time of Sample Collection	1520					

Notes:
Calculating Purge Volume: Length of tube (ft.) x 5.5 cc/linear foot (1/4" OD Teflon Tube)

APPENDIX B

LABORATORY ANALYTICAL REPORTS

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 1705029

Report Created for: Ninyo & Moore

1956 Webster St. #400
Oakland, CA 94612

Project Contact: Peter Sims
Project P.O.: 401896004
Project Name: 401596004; CHUN

Project Received: 05/01/2017

Analytical Report reviewed & approved for release on 05/09/2017 by:

Angela Rydelius,
Laboratory Manager

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
CA ELAP 1644 ♦ NELAP 4033ORELAP

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: Ninyo & Moore
Project: 401596004; CHUN
WorkOrder: 1705029

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
IGN1	Sample is non metalic
IGN2	Sample is metalic
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)

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: Ninyo & Moore
Project: 401596004; CHUN
WorkOrder: 1705029

Analytical Qualifiers

S	surrogate spike recovery outside accepted recovery limits
a2	sample diluted due to cluttered chromatogram
a3	sample diluted due to high organic content.
c2	surrogate recovery outside of the control limits due to matrix interference.

Quality Control Qualifiers

F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.

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

Case Narrative

Client: Ninyo & Moore
Project: 401596004; CHUN

Work Order: 1705029
May 11, 2017

TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Active Soil Gas Advisory of July 2015.

Sample 1705029-007A could not be analyzed because it contained liquid and had a strong gasoline odor. A septa was put on the port of the sample, and liquid oozed out.

McCampbell Analytical, Inc.
"When Quality Counts"

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/3/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-1	**1705029-008A**	**Indoor Air**	**04/27/2017 15:20**	**GC26**	**138457**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**16**	8.0	2.5	05/03/2017 11:02

Analyst(s): AK

Angela Rydelius, Lab Manager

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/3/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-9B	**1705029-001A**	**SoilGas**	**04/27/2017 08:36**	**GC26**	**138457**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.58	**27.16**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**16**	0.40	1	05/03/2017 08:16

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-6B	**1705029-002A**	**SoilGas**	**04/27/2017 09:14**	**GC26**	**138457**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.97	**27.93**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**1.2**	0.40	1	05/03/2017 08:37

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-3B	**1705029-003A**	**SoilGas**	**04/27/2017 09:47**	**GC26**	**138457**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.71	**27.38**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Oxygen	**13**	0.40	1	05/03/2017 08:58

(Cont.)

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Analytical Report

Client: Ninyo & Moore
Date Received: 5/1/17 16:00
Date Prepared: 5/3/17
Project: 401596004; CHUN

WorkOrder: 1705029
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-15	1705029-004A	SoilGas	04/27/2017 10:31	GC26	138457

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.92	25.74	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	15	0.40	1	05/03/2017 09:19

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-11B	1705029-005A	SoilGas	04/27/2017 12:32	GC26	138457

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.96	27.87	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	13	0.40	1	05/03/2017 09:40

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-14	1705029-006A	SoilGas	04/27/2017 13:19	GC26	138457

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.11	28.21	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	17	0.40	1	05/03/2017 10:01

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/3/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	µL/L

Helium and Hydrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-1	1705029-008A	Indoor Air	04/27/2017 15:20	GC26	138459

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.13	21.00	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	40	1	05/03/2017 17:00

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Analytical Report

Client: Ninyo & Moore
Date Received: 5/1/17 16:00
Date Prepared: 5/3/17-5/4/17
Project: 401596004; CHUN

WorkOrder: 1705029
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-9B	1705029-001A	SoilGas	04/27/2017 08:36	GC26	138460

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.58	27.16	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	05/03/2017 15:43

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-6B	1705029-002A	SoilGas	04/27/2017 09:14	GC26	138460

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.97	27.93	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	05/03/2017 15:56

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-3B	1705029-003A	SoilGas	04/27/2017 09:47	GC26	138460

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.71	27.38	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	05/03/2017 16:08

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/3/17-5/4/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-15	**1705029-004A**	**SoilGas**	**04/27/2017 10:31**	**GC26**	**138460**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.92	**25.74**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	05/03/2017 16:21

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-11B	**1705029-005A**	**SoilGas**	**04/27/2017 12:32**	**GC26**	**138460**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.96	**27.87**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Helium	**1.9**	1.2	25	05/04/2017 12:35

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-14	**1705029-006A**	**SoilGas**	**04/27/2017 13:19**	**GC26**	**138460**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.11	**28.21**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Helium	**0.25**	0.050	1	05/03/2017 16:47

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/2/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-1	**1705029-008A**	**Indoor Air**	**04/27/2017 15:20**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.13	**21.00**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	**0.0075**	0.00016	1	05/02/2017 17:59

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/2/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-9B	**1705029-001A**	**SoilGas**	**04/27/2017 08:36**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.58	**27.16**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	ND	0.00020	1	05/02/2017 15:52

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-6B	**1705029-002A**	**SoilGas**	**04/27/2017 09:14**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.97	**27.93**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	**0.20**	0.00020	1	05/02/2017 16:13

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-3B	**1705029-003A**	**SoilGas**	**04/27/2017 09:47**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.71	**27.38**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	**0.0012**	0.00020	1	05/02/2017 16:34

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	ASTM D 1946-90
Date Prepared:	5/2/17	**Analytical Method:**	ASTM D 1946-90
Project:	401596004; CHUN	**Unit:**	%

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-15	**1705029-004A**	**SoilGas**	**04/27/2017 10:31**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.92	**25.74**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	ND	0.00020	1	05/02/2017 16:55

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-11B	**1705029-005A**	**SoilGas**	**04/27/2017 12:32**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.96	**27.87**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	ND	0.00020	1	05/02/2017 17:16

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-14	**1705029-006A**	**SoilGas**	**04/27/2017 13:19**	**GC26**	**138454**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.11	**28.21**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Methane	ND	0.00020	1	05/02/2017 17:37

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	SW5030B
Date Prepared:	5/9/17	**Analytical Method:**	SW8260B
Project:	401596004; CHUN	**Unit:**	µg/m³

Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-6B	**1705029-002A**	**SoilGas**	**04/27/2017 09:14**	**GC10**	**138557**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.97	**27.93**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	2000	4	05/09/2017 13:30
Ethylbenzene	ND	2000	4	05/09/2017 13:30
Naphthalene	ND	2000	4	05/09/2017 13:30

Surrogates	REC (%)	Qualifiers	Limits	
Dibromofluoromethane	25	S	70-130	05/09/2017 13:30
Toluene-d8	129		70-130	05/09/2017 13:30
4-BFB	302	S	70-130	05/09/2017 13:30

Analytical Comments: a2,a3,c2

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	TO15
Date Prepared:	5/4/17-5/5/17	**Analytical Method:**	TO15
Project:	401596004; CHUN	**Unit:**	µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-3B	**1705029-003A**	**SoilGas**	**04/27/2017 09:47**	**GC43**	**138462**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.71	**27.38**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**500**	8.0	5	05/05/2017 01:41
Ethylbenzene	**1500**	220	5	05/05/2017 01:41
Naphthalene	**28**	26	5	05/05/2017 01:41
Surrogates	**REC (%)**	**Limits**		
1,2-DCA-d4	96	70-130		05/05/2017 01:41
Toluene-d8	102	70-130		05/05/2017 01:41
4-BFB	98	70-130		05/05/2017 01:41

NMB-15	1705029-004A	SoilGas	04/27/2017 10:31	GC43	138462

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.92	**25.74**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	8.0	5	05/05/2017 00:59
Ethylbenzene	ND	220	5	05/05/2017 00:59
Naphthalene	ND	26	5	05/05/2017 00:59
Surrogates	**REC (%)**	**Limits**		
1,2-DCA-d4	99	70-130		05/05/2017 00:59
Toluene-d8	101	70-130		05/05/2017 00:59
4-BFB	97	70-130		05/05/2017 00:59

Analytical Comments: a3

(Cont.)

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	TO15
Date Prepared:	5/4/17-5/5/17	**Analytical Method:**	TO15
Project:	401596004; CHUN	**Unit:**	µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-11B	**1705029-005A**	**SoilGas**	**04/27/2017 12:32**	**GC43**	**138462**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.96	**27.87**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**21**	16	10	05/04/2017 22:53
Ethylbenzene	ND	440	10	05/04/2017 22:53
Naphthalene	ND	53	10	05/04/2017 22:53
Surrogates	**REC (%)**	**Limits**		
1,2-DCA-d4	98	70-130		05/04/2017 22:53
Toluene-d8	100	70-130		05/04/2017 22:53
4-BFB	97	70-130		05/04/2017 22:53

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Analytical Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Received:	5/1/17 16:00	**Extraction Method:**	TO15
Date Prepared:	5/5/17	**Analytical Method:**	TO15
Project:	401596004; CHUN	**Unit:**	µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-1	**1705029-008A**	**Indoor Air**	**04/27/2017 15:20**	**GC24**	**138468**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.13	**21.00**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**1.1**	0.051	1	05/05/2017 12:30
Ethylbenzene	ND	0.70	1	05/05/2017 12:30
Naphthalene	**0.57**	0.080	1	05/05/2017 12:30

Surrogates	REC (%)	Limits	
1,2-DCA-d4	73	70-130	05/05/2017 12:30
Toluene-d8	99	70-130	05/05/2017 12:30
4-BFB	96	70-130	05/05/2017 12:30

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Analytical Report

Client: Ninyo & Moore
Date Received: 5/1/17 16:00
Date Prepared: 5/4/17-5/6/17
Project: 401596004; CHUN

WorkOrder: 1705029
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-9B	**1705029-001A**	**SoilGas**	**04/27/2017 08:36**	**GC43**	**138462**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.58	**27.16**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**15**	1.6	1	05/06/2017 03:56
Ethylbenzene	**72**	2.2	1	05/06/2017 03:56
Naphthalene	**8.9**	5.3	1	05/06/2017 03:56

Surrogates	REC (%)	Limits	
1,2-DCA-d4	95	70-130	05/06/2017 03:56
Toluene-d8	98	70-130	05/06/2017 03:56
4-BFB	106	70-130	05/06/2017 03:56

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
NMB-14	**1705029-006A**	**SoilGas**	**04/27/2017 13:19**	**GC24**	**138462**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.11	**28.21**	**AK**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**12**	1.6	1	05/04/2017 09:42
Ethylbenzene	**15**	2.2	1	05/04/2017 09:42
Naphthalene	ND	5.3	1	05/04/2017 09:42

Surrogates	REC (%)	Qualifiers	Limits	
1,2-DCA-d4	69	S	70-130	05/04/2017 09:42
Toluene-d8	99		70-130	05/04/2017 09:42
4-BFB	95		70-130	05/04/2017 09:42

Analytical Comments: c2

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Quality Control Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Prepared:	5/3/17	**BatchID:**	138457
Date Analyzed:	5/3/17	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	SoilGas	**Unit:**	%
Project:	401596004; CHUN	**Sample ID:**	MB/LCS-138457

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Oxygen	ND	0.554	0.20	0.70	-	79	70-130

QA/QC Officer

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Quality Control Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Prepared:	5/3/17	**BatchID:**	138460
Date Analyzed:	5/3/17	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	Soilgas	**Unit:**	%
Project:	401596004; CHUN	**Sample ID:**	MB/LCS-138460

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0846	0.025	0.10	-	85	60-140

QA/QC Officer

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Quality Control Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Prepared:	5/2/17	**BatchID:**	138454
Date Analyzed:	5/2/17	**Extraction Method:**	ASTM D 1946-90
Instrument:	GC26	**Analytical Method:**	ASTM D 1946-90
Matrix:	SoilGas	**Unit:**	%
Project:	401596004; CHUN	**Sample ID:**	MB/LCS-138454

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	0.00723	0.00010	0.010	-	72	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:	Ninyo & Moore	**WorkOrder:**	1705029
Date Prepared:	5/4/17 - 5/5/17	**BatchID:**	138468
Date Analyzed:	5/4/17 - 5/5/17	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Indoor Air	**Unit:**	µg/m³
Project:	401596004; CHUN	**Sample ID:**	MB/LCS-138468

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	11.4	6.0	12	-	95	60-140
Acrolein	ND	12.0	0.58	11.65	-	103	60-140
Acrylonitrile	ND	13.2	0.22	11	-	120	60-140
tert-Amyl methyl ether (TAME)	ND	14.2	0.42	21	-	68	60-140
Benzene	ND	18.5	0.032	16	-	116	60-140
Benzyl chloride	ND	21.0	0.53	26.5	-	79	60-140
Bromodichloromethane	ND	38.4	0.0070	35	-	110	60-140
Bromoform	ND	59.1	1.1	52.5	-	113	60-140
Bromomethane	ND	22.2	0.39	19.5	-	114	60-140
1,3-Butadiene	ND	12.6	0.22	11	-	115	60-140
2-Butanone (MEK)	ND	17.0	7.5	15	-	113	60-140
t-Butyl alcohol (TBA)	ND	9.81	6.2	15.5	-	63	60-140
Carbon Disulfide	ND	17.2	0.32	16	-	107	60-140
Carbon Tetrachloride	ND	18.1	0.0064	32	-	57, F2	60-140
Chlorobenzene	ND	26.7	0.47	23.5	-	113	60-140
Chloroethane	ND	16.1	0.27	13.5	-	119	60-140
Chloroform	ND	23.6	0.025	24.5	-	96	60-140
Chloromethane	ND	9.64	0.21	10.5	-	92	60-140
Cyclohexane	ND	18.4	1.8	17.5	-	105	60-140
Dibromochloromethane	ND	53.7	0.87	43.5	-	123	60-140
1,2-Dibromo-3-chloropropane	ND	57.7	0.050	49	-	118	60-140
1,2-Dibromoethane (EDB)	ND	46.0	0.0078	39	-	118	60-140
1,2-Dichlorobenzene	ND	36.8	0.61	30.5	-	121	60-140
1,3-Dichlorobenzene	ND	36.4	0.61	30.5	-	119	60-140
1,4-Dichlorobenzene	ND	36.2	0.030	30.5	-	119	60-140
Dichlorodifluoromethane	ND	22.6	0.50	25	-	90	60-140
1,1-Dichloroethane	ND	22.6	0.41	20.5	-	110	60-140
1,2-Dichloroethane (1,2-DCA)	ND	15.6	0.0041	20.5	-	76	60-140
1,1-Dichloroethene	ND	22.4	0.10	20	-	112	60-140
cis-1,2-Dichloroethene	ND	21.4	0.40	20	-	107	60-140
trans-1,2-Dichloroethene	ND	21.1	0.40	20	-	106	60-140
1,2-Dichloropropane	ND	26.1	0.0047	23.5	-	111	60-140
cis-1,3-Dichloropropene	ND	25.8	0.12	23	-	112	60-140
trans-1,3-Dichloropropene	ND	21.6	0.12	23	-	94	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	33.1	0.71	35.5	-	93	60-140
Diisopropyl ether (DIPE)	ND	20.4	0.42	21	-	97	60-140
1,4-Dioxane	ND	23.7	0.018	18.5	-	128	60-140

(Cont.)

QA/QC Officer

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

Quality Control Report

Client:	Ninyo & Moore	**WorkOrder:**	1705029
Date Prepared:	5/4/17 - 5/5/17	**BatchID:**	138468
Date Analyzed:	5/4/17 - 5/5/17	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Indoor Air	**Unit:**	µg/m³
Project:	401596004; CHUN	**Sample ID:**	MB/LCS-138468

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethyl acetate	ND	18.6	0.92	18.5	-	100	60-140
Ethyl tert-butyl ether (ETBE)	ND	15.9	0.42	21	-	76	60-140
Ethylbenzene	ND	25.1	0.44	22	-	114	60-140
4-Ethyltoluene	ND	29.0	0.50	25	-	116	60-140
Freon 113	ND	39.3	0.78	39	-	101	60-140
Heptane	ND	22.0	2.1	21	-	105	60-140
Hexachlorobutadiene	ND	66.1	1.1	54	-	122	60-140
Hexane	ND	17.9	1.8	18	-	99	60-140
2-Hexanone	ND	14.6	0.42	21	-	70	60-140
4-Methyl-2-pentanone (MIBK)	ND	22.6	0.42	21	-	107	60-140
Methyl-t-butyl ether (MTBE)	ND	14.7	0.37	18.5	-	79	60-140
Methylene chloride	ND	17.4	0.88	17.5	-	100	60-140
Methyl methacrylate	ND	23.2	0.42	20.8	-	112	60-140
Naphthalene	ND	64.6	0.050	53	-	122	60-140
Propene	ND	ND	8.8	8.5	-	86	60-140
Styrene	ND	24.8	0.43	21.5	-	115	60-140
1,1,1,2-Tetrachloroethane	ND	38.6	0.0070	35	-	110	60-140
1,1,2,2-Tetrachloroethane	ND	43.2	0.0070	35	-	124	60-140
Tetrachloroethene	ND	39.2	0.069	34.5	-	114	60-140
Tetrahydrofuran	ND	14.3	0.60	15	-	95	60-140
Toluene	ND	21.6	0.38	19	-	114	60-140
1,2,4-Trichlorobenzene	ND	50.6	0.75	37.5	-	135	60-140
1,1,1-Trichloroethane	ND	26.4	0.55	27.5	-	96	60-140
1,1,2-Trichloroethane	ND	31.4	0.0055	27.5	-	114	60-140
Trichloroethene	ND	30.8	0.027	27.5	-	112	60-140
Trichlorofluoromethane	ND	28.5	0.57	28.5	-	100	60-140
1,2,4-Trimethylbenzene	ND	29.3	0.50	25	-	117	60-140
1,3,5-Trimethylbenzene	ND	28.5	0.50	25	-	114	60-140
Vinyl Acetate	ND	21.6	1.8	18	-	120	60-140
Vinyl Chloride	ND	14.6	0.013	13	-	113	60-140
Xylenes, Total	ND	85.1	1.3	66	-	129	60-140
Surrogate Recovery							
1,2-DCA-d4	73.96	71.5		100	74	72	70-130
Toluene-d8	98.85	99.2		100	99	99	70-130
4-BFB	95.35	97.1		100	95	97	70-130

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1705029 **ClientCode: NMO**

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

Report to:
Peter Sims
Ninyo & Moore
1956 Webster St. #400
Oakland, CA 94612
(510) 633-5640 FAX: (510) 633-5646

Email: psims@ninyoandmoore.com
cc/3rd Party:
PO: 401896004
ProjectNo: 401596004; CHUN

Bill to:
Accounts Payable
Ninyo & Moore
1956 Webster St. #400
Oakland, CA 94612

Requested TAT: 5 days;

Date Received: 05/01/2017
Date Logged: 05/02/2017

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
1705029-001	NMB-9B	SoilGas	4/27/2017 08:36	☐		A	A			A		A	A			
1705029-002	NMB-6B	SoilGas	4/27/2017 09:14	☐		A	A			A		A	A			
1705029-003	NMB-3B	SoilGas	4/27/2017 09:47	☐		A	A			A		A	A			
1705029-004	NMB-15	SoilGas	4/27/2017 10:31	☐		A	A			A		A	A			
1705029-005	NMB-11B	SoilGas	4/27/2017 12:32	☐		A	A			A		A	A			
1705029-006	NMB-14	SoilGas	4/27/2017 13:19	☐		A	A			A		A	A			
1705029-007	NMB-13	SoilGas	4/27/2017 15:28	☐		A	A			A		A	A			
1705029-008	IA-1	Indoor Air	4/27/2017 15:20	☐	A			A	A		A					

Test Legend:

1	ATMOSPHERICGAS_A(%)	2	ATMOSPHERICGAS_SG(%)	3	HELIUM_LC_SOILGAS(%)	4	HELIUM+HYDROGEN_Tedlar
5	LG_SUMMA_INDOOR(%)	6	LG_SUMMA_SOILGAS(%)	7	TO15_SCAN-SIM_Indoor(ug/m3)	8	TO15_Scan-SIM_SOIL(UG/M3)
9	TO15-8260_SOIL(UG/M3)	10		11		12	

Prepared by: Jena Alfaro

The following SampID: 008A contains testgroup TO15_INDOOR.; The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A contain testgroup TO15He_O2_CO2_Ch4_SG.

Comments: Jennifer is the PM

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: NINYO & MOORE
Client Contact: Peter Sims
Contact's Email: psims@ninyoandmoore.com

Project: 401596004; CHUN
Comments: Jennifer is the PM

Work Order: 1705029
QC Level: LEVEL 2
Date Logged: 5/2/2017

☐ 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
1705029-001A	NMB-9B	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 8:36	5 days		☐	
1705029-002A	NMB-6B	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 9:14	5 days		☐	
1705029-003A	NMB-3B	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 9:47	5 days		☐	
1705029-004A	NMB-15	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 10:31	5 days		☐	
1705029-005A	NMB-11B	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 12:32	5 days		☐	
1705029-006A	NMB-14	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 13:19	5 days		☐	
1705029-007A	NMB-13	SoilGas	TO15 w/ Helium, O2, CO2 and Methane	1	1L Summa	☐	4/27/2017 15:28	5 days		☐	
1705029-008A	IA-1	Indoor Air	TO15 for Indoor Air (Scan-SIM)	1	6L Summa	☐	4/27/2017 15:20	5 days		☐	
			ASTM D1946-90 (CO, CO2 and CH4) <Methane_4>			☐		5 days		☐	
			ASTM D1946-90 (Helium &/or Hydrogen) <Helium_3>			☐		5 days		☐	
			ASTM D1946-90 (N2, O2) <Oxygen>			☐		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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1705029

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 DAY ☒

GeoTracker EDF ☐ PDF ☐ EDD ☐ EQuIS ☐ 10 DAY ☐

UST Clean Up Fund Project ☐ Claim #

Report To: Peter Sims | Bill To: 401896004

Company: Ninyo and Moore
1956 Webster St.
Oakland CA 94612

E-Mail: psims@ninyoandmoore.com

Tele: (510) 343-3000 | Fax: ( )

Project #: 401896004 | Project Name: CHUN

Project Location: 2301 Santa Clara Ave, Alameda

Sampler Signature: [signature]

Helium Shroud SN#

Other:

Notes: Please Specify units if different than defaults VOCs is ug/m3 and fixed gas is uL/L. Leak check default is IPA.

Fixed gas + Helium in % please

Analysis Requested

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	VOCs by TO-15 (ug/m3) TO-15	8010 by TO-15 (ug/m3) Naphthalene	~~TPH(g) (ug/m3)~~ Benzene, Ethylbenzene, Other	LEED (inc. 4PCH, Formaldehyde, CO, Total VOCs)	Fixed Gas: CO2, Methane, Ethane, Ethylene, Acetylene, CO (please circle or indicate in notes) uL/L	Fixed Gas: O2, N2 (please circle) uL/L	Fixed Gas: Propane uL/L	Helium Leak Check (%) D1946	Leak Check (IPA, Norflorane, 1,1-difluroethane) ug/m3	APH: Aliphatic and/or Aromatic (please circle) ug/m3	Other: O2, Methane by D1946	Matrix: Soilgas	Matrix: Indoor Air	Cannister Pressure/Vacuum: Initial	Cannister Pressure/Vacuum: Final
NMB-9B	4/27/17	0836	6906-793	316-770			X					X			X	X		-29	-5
NMB-6B		0914	7527-875	316-1347			X					X			X	X		-31	-4
NMB-3B		0947	7531-879	316-1328			X					X			X	X		-31	-4
NMB-15		1031	7528-876	316-727			X					X			X	X		-30	-5
NMB-11B		1232	1978-1926	316-1327			X					X			X	X		-31	-4
NMB-14		1319	6209-745	316-845			X					X			X	X		-31	-4
NMB-13*		1528	R1218-2551	316-1336			X					X			X	X		-29	-26
IA-1	↓	1520	2735-558	1051			X					X			X		X	-29.5	-5

*Note: Water or Possible TPHg in tubing, manifold, and Summa Canister

Relinquished By:	Date:	Time:	Received By:
[signature]	4/28/17	0900	[signature] 5-1-17 1420
[signature]	5-1-17	1600	[signature]

Temp (°C) : ______ Work Order #: ______

Condition: ______

Custody Seals Intact?: Yes ____ No ____ None ____

Shipped Via: ______

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Sample Receipt Checklist

Client Name:	**Ninyo & Moore**	Date and Time Received	**5/1/2017 16:00**
Project Name:	**401596004; CHUN**	Date Logged:	**5/2/2017**
		Received by:	Jena Alfaro
WorkOrder №:	**1705029** Matrix: Indoor Air/SoilGas	Logged by:	Jena Alfaro
Carrier:	Bernie Cummins (MAI Courier)		

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:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-79144-1
Client Project/Site: Chun
Revision: 1

For:
Ninyo & Moore
1956 Webster Street
Suite 400
Oakland, California 94612

Attn: Mr. Peter D. Sims

Authorized for release by:
5/17/2017 3:10:51 PM

Paloma Duong, Project Manager I
(925)484-1919
paloma.duong@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Glossary

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

Job ID: 720-79144-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-79144-1

Comments
No additional comments.

Receipt
The samples were received on 4/26/2017 12:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

Receipt Exceptions
Sample NMB-11B-5.0 was received with no soil in the core-n-one. Sample analysis was canceled.

GC/MS VOA
Method 8260B: Elevated reporting limits are provided for the following samples: NMB-9B-2.5 (720-79144-3) and NMB-6B-2.5 (720-79144-5). Original analysis had significant carryover from the previous runs in the batch. The second analysis had a poor purge with no reportable data.

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

Detection Summary

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-13-2.5 — Lab Sample ID: 720-79144-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	12000000		2300000		ug/Kg	10000		8260B	Total/NA

Client Sample ID: NMB-13-4.0 — Lab Sample ID: 720-79144-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	8600000		2300000		ug/Kg	10000		8260B	Total/NA

Client Sample ID: NMB-9B-2.5 — Lab Sample ID: 720-79144-3

No Detections.

Client Sample ID: NMB-9B-5.0 — Lab Sample ID: 720-79144-4

No Detections.

Client Sample ID: NMB-6B-2.5 — Lab Sample ID: 720-79144-5

No Detections.

Client Sample ID: NMB-6B-5.0 — Lab Sample ID: 720-79144-6

No Detections.

Client Sample ID: NMB-3B-2.5 — Lab Sample ID: 720-79144-7

No Detections.

Client Sample ID: NMB-3B-5.0 — Lab Sample ID: 720-79144-8

No Detections.

Client Sample ID: NMB-14-2.5 — Lab Sample ID: 720-79144-9

No Detections.

Client Sample ID: NMB-14-5.0 — Lab Sample ID: 720-79144-10

No Detections.

Client Sample ID: NMB-11B-2.5 — Lab Sample ID: 720-79144-11

No Detections.

Client Sample ID: NMB-15-2.5 — Lab Sample ID: 720-79144-13

No Detections.

Client Sample ID: NMB-15-5.0 — Lab Sample ID: 720-79144-14

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-13-2.5
Date Collected: 04/25/17 08:50
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	12000000		2300000		ug/Kg		04/26/17 23:00	04/28/17 19:11	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*66 - 148*	*04/26/17 23:00*	*04/28/17 19:11*	*10000*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-13-4.0
Date Collected: 04/25/17 09:05
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	8600000		2300000		ug/Kg		04/26/17 23:00	04/28/17 19:42	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*66 - 148*	*04/26/17 23:00*	*04/28/17 19:42*	*10000*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-9B-2.5
Date Collected: 04/25/17 09:50
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		22000		ug/Kg		04/26/17 23:00	05/02/17 12:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*66 - 148*	*04/26/17 23:00*	*05/02/17 12:05*	*100*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-9B-5.0
Date Collected: 04/25/17 10:05
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		210		ug/Kg		04/26/17 23:00	04/28/17 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*45 - 131*	*04/26/17 23:00*	*04/28/17 19:30*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-6B-2.5
Date Collected: 04/25/17 10:30
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		22000		ug/Kg		04/26/17 23:00	05/02/17 12:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*66 - 148*	*04/26/17 23:00*	*05/02/17 12:36*	*100*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-6B-5.0
Date Collected: 04/25/17 10:40
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		210		ug/Kg		04/26/17 23:00	04/28/17 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*45 - 131*	*04/26/17 23:00*	*04/28/17 20:28*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-3B-2.5
Date Collected: 04/25/17 11:00
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		220		ug/Kg		04/26/17 23:00	04/28/17 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*45 - 131*	*04/26/17 23:00*	*04/28/17 20:56*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-3B-5.0
Date Collected: 04/25/17 11:10
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		210		ug/Kg		04/26/17 23:00	04/28/17 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*45 - 131*	*04/26/17 23:00*	*04/28/17 22:51*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-14-2.5
Date Collected: 04/25/17 11:30
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		220		ug/Kg		04/26/17 23:00	04/28/17 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*45 - 131*	*04/26/17 23:00*	*04/28/17 23:20*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-14-5.0
Date Collected: 04/25/17 11:40
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		200		ug/Kg		04/26/17 23:00	04/28/17 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*45 - 131*	*04/26/17 23:00*	*04/28/17 23:49*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-11B-2.5
Date Collected: 04/25/17 12:10
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		200		ug/Kg		04/26/17 23:00	04/29/17 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*45 - 131*	*04/26/17 23:00*	*04/29/17 00:17*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-15-2.5
Date Collected: 04/25/17 14:00
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		210		ug/Kg		04/26/17 23:00	04/29/17 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*45 - 131*	*04/26/17 23:00*	*04/29/17 00:46*	*1*

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-15-5.0
Date Collected: 04/25/17 14:15
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		190		ug/Kg		04/26/17 23:00	04/29/17 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*45 - 131*	*04/26/17 23:00*	*04/29/17 01:15*	*1*

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

Lab Sample ID: MB 720-222053/9
Matrix: Solid
Analysis Batch: 222053

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		25000		ug/Kg			04/28/17 12:33	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*66 - 148*		*04/28/17 12:33*	*100*

Lab Sample ID: LCS 720-222053/13
Matrix: Solid
Analysis Batch: 222053

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			100000	98700		ug/Kg		99	71 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*66 - 148*

Lab Sample ID: LCSD 720-222053/14
Matrix: Solid
Analysis Batch: 222053

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			100000	102000		ug/Kg		102	71 - 134	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*66 - 148*

Lab Sample ID: MB 720-222080/11
Matrix: Solid
Analysis Batch: 222080

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12	ND		250		ug/Kg			04/28/17 18:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*45 - 131*		*04/28/17 18:31*	*1*

Lab Sample ID: LCS 720-222080/9
Matrix: Solid
Analysis Batch: 222080

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C5-C12			1000	1040		ug/Kg		104	61 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*45 - 131*

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

Lab Sample ID: LCSD 720-222080/10
Matrix: Solid
Analysis Batch: 222080

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12			1000	976		ug/Kg		98	61 - 128	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*45 - 131*

Lab Sample ID: MB 720-222215/4
Matrix: Solid
Analysis Batch: 222215

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		25000		ug/Kg			05/02/17 09:00	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*66 - 148*		*05/02/17 09:00*	*100*

Lab Sample ID: LCS 720-222215/7
Matrix: Solid
Analysis Batch: 222215

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			100000	97800		ug/Kg		98	71 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*66 - 148*

Lab Sample ID: LCSD 720-222215/8
Matrix: Solid
Analysis Batch: 222215

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			100000	98000		ug/Kg		98	71 - 134	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*66 - 148*

GC/MS VOA

Analysis Batch: 222053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79144-1	NMB-13-2.5	Total/NA	Solid	8260B	222105
720-79144-2	NMB-13-4.0	Total/NA	Solid	8260B	222105
MB 720-222053/9	Method Blank	Total/NA	Solid	8260B	
LCS 720-222053/13	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-222053/14	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 222080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79144-4	NMB-9B-5.0	Total/NA	Solid	8260B	222105
720-79144-6	NMB-6B-5.0	Total/NA	Solid	8260B	222105
720-79144-7	NMB-3B-2.5	Total/NA	Solid	8260B	222105
720-79144-8	NMB-3B-5.0	Total/NA	Solid	8260B	222105
720-79144-9	NMB-14-2.5	Total/NA	Solid	8260B	222105
720-79144-10	NMB-14-5.0	Total/NA	Solid	8260B	222105
720-79144-11	NMB-11B-2.5	Total/NA	Solid	8260B	222105
720-79144-13	NMB-15-2.5	Total/NA	Solid	8260B	222105
720-79144-14	NMB-15-5.0	Total/NA	Solid	8260B	222105
MB 720-222080/11	Method Blank	Total/NA	Solid	8260B	
LCS 720-222080/9	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-222080/10	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 222105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79144-1	NMB-13-2.5	Total/NA	Solid	5035	
720-79144-2	NMB-13-4.0	Total/NA	Solid	5035	
720-79144-4	NMB-9B-5.0	Total/NA	Solid	5035	
720-79144-6	NMB-6B-5.0	Total/NA	Solid	5035	
720-79144-7	NMB-3B-2.5	Total/NA	Solid	5035	
720-79144-8	NMB-3B-5.0	Total/NA	Solid	5035	
720-79144-9	NMB-14-2.5	Total/NA	Solid	5035	
720-79144-10	NMB-14-5.0	Total/NA	Solid	5035	
720-79144-11	NMB-11B-2.5	Total/NA	Solid	5035	
720-79144-13	NMB-15-2.5	Total/NA	Solid	5035	
720-79144-14	NMB-15-5.0	Total/NA	Solid	5035	

Analysis Batch: 222215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79144-3	NMB-9B-2.5	Total/NA	Solid	8260B	222245
720-79144-5	NMB-6B-2.5	Total/NA	Solid	8260B	222245
MB 720-222215/4	Method Blank	Total/NA	Solid	8260B	
LCS 720-222215/7	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-222215/8	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 222245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79144-3	NMB-9B-2.5	Total/NA	Solid	5035	
720-79144-5	NMB-6B-2.5	Total/NA	Solid	5035	

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-13-2.5
Lab Sample ID: 720-79144-1
Date Collected: 04/25/17 08:50
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		10000	222053	04/28/17 19:11	BAJ	TAL PLS

Client Sample ID: NMB-13-4.0
Lab Sample ID: 720-79144-2
Date Collected: 04/25/17 09:05
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		10000	222053	04/28/17 19:42	BAJ	TAL PLS

Client Sample ID: NMB-9B-2.5
Lab Sample ID: 720-79144-3
Date Collected: 04/25/17 09:50
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222245	04/26/17 23:00	JRM	TAL PLS
Total/NA	Analysis	8260B		100	222215	05/02/17 12:05	JRM	TAL PLS

Client Sample ID: NMB-9B-5.0
Lab Sample ID: 720-79144-4
Date Collected: 04/25/17 10:05
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 19:30	A1C	TAL PLS

Client Sample ID: NMB-6B-2.5
Lab Sample ID: 720-79144-5
Date Collected: 04/25/17 10:30
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222245	04/26/17 23:00	JRM	TAL PLS
Total/NA	Analysis	8260B		100	222215	05/02/17 12:36	JRM	TAL PLS

Client Sample ID: NMB-6B-5.0
Lab Sample ID: 720-79144-6
Date Collected: 04/25/17 10:40
Matrix: Solid
Date Received: 04/26/17 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 20:28	A1C	TAL PLS

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-3B-2.5
Date Collected: 04/25/17 11:00
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 20:56	A1C	TAL PLS

Client Sample ID: NMB-3B-5.0
Date Collected: 04/25/17 11:10
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 22:51	A1C	TAL PLS

Client Sample ID: NMB-14-2.5
Date Collected: 04/25/17 11:30
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 23:20	A1C	TAL PLS

Client Sample ID: NMB-14-5.0
Date Collected: 04/25/17 11:40
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/28/17 23:49	A1C	TAL PLS

Client Sample ID: NMB-11B-2.5
Date Collected: 04/25/17 12:10
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/29/17 00:17	A1C	TAL PLS

Client Sample ID: NMB-15-2.5
Date Collected: 04/25/17 14:00
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/29/17 00:46	A1C	TAL PLS

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Client Sample ID: NMB-15-5.0

Date Collected: 04/25/17 14:15
Date Received: 04/26/17 12:00

Lab Sample ID: 720-79144-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			222105	04/26/17 23:00	MJK	TAL PLS
Total/NA	Analysis	8260B		1	222080	04/29/17 01:15	A1C	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS

Protocol References:

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

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Ninyo & Moore
Project/Site: Chun

TestAmerica Job ID: 720-79144-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-79144-1	NMB-13-2.5	Solid	04/25/17 08:50	04/26/17 12:00
720-79144-2	NMB-13-4.0	Solid	04/25/17 09:05	04/26/17 12:00
720-79144-3	NMB-9B-2.5	Solid	04/25/17 09:50	04/26/17 12:00
720-79144-4	NMB-9B-5.0	Solid	04/25/17 10:05	04/26/17 12:00
720-79144-5	NMB-6B-2.5	Solid	04/25/17 10:30	04/26/17 12:00
720-79144-6	NMB-6B-5.0	Solid	04/25/17 10:40	04/26/17 12:00
720-79144-7	NMB-3B-2.5	Solid	04/25/17 11:00	04/26/17 12:00
720-79144-8	NMB-3B-5.0	Solid	04/25/17 11:10	04/26/17 12:00
720-79144-9	NMB-14-2.5	Solid	04/25/17 11:30	04/26/17 12:00
720-79144-10	NMB-14-5.0	Solid	04/25/17 11:40	04/26/17 12:00
720-79144-11	NMB-11B-2.5	Solid	04/25/17 12:10	04/26/17 12:00
720-79144-13	NMB-15-2.5	Solid	04/25/17 14:00	04/26/17 12:00
720-79144-14	NMB-15-5.0	Solid	04/25/17 14:15	04/26/17 12:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 4[illegible]919 • Fax: [illegible]600.3002

720-79144

Reference #: 175541

Date 4/25/17 Page 1 of 2

5/17/2017

Report To

Attn: Peter Sims
Company: Ninyo & Moore
Address: 1956 Webster ST, OAK
Email: psims@ninyoandmoore.com
Bill To: 401896004
Sampled By: FSM
Attn:
Phone: 510 343-3000

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B ☒ Gas ☐ BTEX TPH-g ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity			Number of Containers
NMB-13-2.5	4/25/17	0850	So	—			X																		3
NMB-13-4.0		0905	So	—			X																		W
NMB-9B-2.5		0950	So	—			X																		
NMB-9B-5.0		1005	So	—			X																		
NMB-6B-2.5		1030	So	—			X																		
NMB-6B-5.0		1040	So	—			X		Run	TPHg			by 8260		ONLY										
NMB-3B-2.5		1100	So	—			X																		
NMB-3B-5.0		1110	So	—			X																		
NMB-14-2.5		1130	So	—			X																		
NMB-14-5.0	↓	1140	So	—			X																		W

720-79144 Chain of Custody

Page 28 of 30

Project Info.

Project Name/ #: CHCN
PO#: 401896004
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 1.2 °C

TAT: ~~10 Day~~ 5 Day | 4 Day | 3 Day | 2 Day | 1 Day | Other: By 5/5/17

Report. ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse

	1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature	0950	1200	Time
Printed Name	Forrest McFarland 4/26/17	4/26/17	Date
Company	Ninyo + Moore		

	1) Received by:	2) Received by:	3) Received by:
Signature	1017	1200	Time
Printed Name	4/26/17	4/26/17	Date
Company			

Rev 10/2012

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-6002

720-79144

Reference #: 175541

Date 4/25/17 Page 2 of 2

5/17/2017

Report To

Attn: Peter Sims
Company Ninyo & Moore
Address: 1956 Webster St. OAK
Email: psims@ninyoandmoore.com
Bill To: 401896004
Sampled By: FSM
Attn:
Phone: 510 343-3000

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B ☐ Gas ☐ BTEX TPH-G ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity			Number of Containers
NMB-11B-2.5	4/25/17	1210	So	—			X																			W
NMB-11B-5.0	↓	1220	So	—			X																			W
NMB-15-2.5		1700	So	—			X																			W
NMB-15-5.0	↓	1715	So	—			X																			W
							TPH-G only																			

Project Info.

Project Name/ #: CHUN
PO#: 401896004
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp:

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | 1 Day | Other: By 5/5/17

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 0500	Signature: [signature] Time: 1100	Signature: Time:
Printed Name: Forrest McFarland Date: 4/26/17	Printed Name: [signature] Date: 4/26/17	Printed Name: Date:
Company: Ninyo & Moore	Company: TA	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 1617	Signature: [signature] Time: 1200	Signature: Time:
Printed Name: [signature] Date: 4/26/17	Printed Name: Dennis A. Date: 4/26/17	Printed Name: Date:
Company: TA	Company: TA	Company:

Rev.10/2012

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-79144-1

Login Number: 79144
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

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