August 7, 2017

Mr. Keith Nowell
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RECEIVED
By Alameda County Environmental Health 9:41 am, Aug 09, 2017

Subject: **Draft Corrective Action Plan**
3101 35th Avenue, Oakland, CA
ACEH Case No. RO0003238; Global ID T10000010421

Dear Mr. Nowell,

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.

Sincerely,

Ms. Mona Hsieh
Responsible Party Representative

Draft Corrective Action Plan

3101 35th Avenue
Oakland, California
Case # RO3238

August 7, 2017

Prepared for:
Green Oak Builders
Attn: Ms. Mona Hsieh & Mr. Patrick Kong
888 Brannan Street, #101
Oakland, CA 94103

Prepared by:
Almar Environmental
407 Almar Avenue
Santa Cruz, California 95060

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1.0 INTRODUCTION

Almar Environmental (Almar) appreciates the opportunity to work on the 3101 35th Avenue project in Oakland, California (Figures 1 through 3). Almar has been retained by Green Oak Builders to prepare this *Draft Corrective Action Plan (CAP)* for the subject site.

Plans have been submitted to the City of Oakland Building Department to redevelop the subject site to a multi-tenant mixed use commercial/industrial building. However, based upon historical investigations, shallow soil vapor at the site is known to have been impacted by chlorinated solvents (specifically, tetrachloroethene – PCE) and to a lesser extent Total Petroleum Hydrocarbons as gasoline (TPHg). This report documents an investigation to further delineate the extent of soil vapor impacts and presents remedial measures to mitigate the intrusion of these vapors into the proposed new development. The results of the investigation are presented, herein.

2.0 SITE INFORMATION

The project site is located at 3101 35th Avenue in the city of Oakland, California (Figure 1). The site consists of a roughly rectangular property associated with Alameda County Assessor's parcel number 28-951-12-1. The site is located on the northern corner of the intersection of 35th Avenue and School Street. An Aerial Photograph of the Site Area is included as Figure 2 and a detailed Site Map is included as Figure 3.

2.1 Physical Setting

Based on the U.S. Geological Survey Oakland East, California Quadrangle 7.5 Minute Series Topo Map, the subject property is approximately 160 feet (ft) above mean sea level (msl). The topographic slope of the subject property and surrounding areas is generally to the west, towards the San Francisco Bay (Figure 1).

According to the *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*, the site lies upon Pleistocence alluvial fan and fluvial deposits (Qpaf) (Graymer, 1996). Site specific soils, encountered during previous investigations have been identified as predominately Clayey Gravel to Gravelly Clay (CL) of varying consistency and plasticity from the ground surface until the total depths explored (approximately 30 feet bgs) (Almar, 2015). Subsurface soils encountered during this current investigation are depicted, in detail, on the boring logs (Appendix D).

The nearest surface water to the site is the seasonal Peralta Creek, located approximately 800 feet north and north west of the subject site. The larger San Francisco Bay is located approximately 2.5 miles west of the site (Figure 1). Based upon topography of the area, regional groundwater flow is expected to be to the west/southwest (towards the San Francisco Bay). Site specific groundwater data is unavailable. However, an active leaking underground storage tank case is located directly across School Street from the subject site (Figure 2). The site is a former Exxon Service Station associated with 3055 35th Avenue (ACHCSA Case #RO0000271). Significant groundwater studies have been conducted at this site, including over 50 groundwater monitoring events since 1999. During the most recent groundwater monitoring event conducted at this site, static groundwater was encountered at between 12 and 16 feet bgs and has been shown to consistently flow in a west to west by southwest direction (Weber Hayes, 2015).

2.2 Site History

The subject site appears to have operated as a gasoline service station from at least 1929 until the early 1980s. In the later years the service station was owned and operated by Texaco. Texaco sold the property in 1982. It appears that the USTs associated with the former Texaco station were previously located near the southern corner of the property (Figure 3) and were removed sometime prior to 1982. From the mid 1980s until the late 1990s the site was an auto parts sales and auto glass repair facility. The building and associated canopy appear to have remained unoccupied from at least 1995 until the buildings were demolished in 2014. The property is currently a vacant lot surrounded by a chain link fence.

2.3 Summary of Previous Environmental Investigations

Phase I Environmental Site Assessment (ESA) – January, 2005

On January 31, 2005 as part of a property transfer, a Phase I ESA was prepared for the subject site by Martin & Associates of Oakland, California (Martin). Part of the conclusions of that report found:

> *"No evidence of (current) storage tanks or pipelines was identified. Former USTs were reportedly removed when gasoline service station activities were discontinued in the early 1980s. No further action or investigation is recommended regarding storage tanks or pipelines at the project."*

Based upon these findings and recommendations, the current property owner proceeded with purchasing the property.

Phase I Environmental Site Assessment (ESA) – October, 2014

On October 3, 2014 a second Phase I ESA, as part of a loan process, was prepared for the subject site by Piers Environmental Services, Inc. of Mill Valley, California (Piers). Part of the conclusions of that report found:

> *This assessment has revealed evidence of a **Recognized Environmental Condition (REC)** from the prior use of the Property**.** The Property operated as a gasoline service station from at least 1929 to 1982, apparently with several generations of tank locations.*
>
> *The gasoline service station closed before environmental regulations existed that required the tanks to be removed and inspected by the regulatory agencies. PIERS was unable to obtain any information concerning tank removals.* ***Therefore, PIERS recommends performing a geophysical survey in the known tank locations to determine if the tanks have been removed.***
>
> *A groundwater monitoring well, MW-6, from an adjacent down-gradient LUST case at 3055 35th Avenue has detected 1,800 parts per billion (ppb) of Total Petroleum Hydrocarbons (TPH) as gasoline and 230 ppb of benzene, significantly above the Water Quality Objective of 1,000 ppb and one ppb, respectively.*
>
> *PIERS contacted Mr. Keith Nowell of the ACEH regarding the 3055 35th Avenue LUST case and the consultant's claim that, based on well MW-6 in front of the Property, contamination from the Property was migrating to the 3055 35th site.* ***Therefore, PIERS recommends conducting a limited soil and groundwater site investigation to determine if the gasoline and benzene concentrations detected in well MW-6 are due to an on-site source of contamination from the Property.***

A Phase II investigation of soil and groundwater conditions and additional effort to determine if there are any tanks remaining at the Property should be completed.

UST Removal Activities – January, 2015

Based upon the findings of the Piers Phase I ESA, an underground survey of the property was conducted and three (3) 350 gallon USTs were identified on the property. Two of the tanks contained gasoline and were located along the western property boundary, along School Street. The third tank was a waste oil tank located near the center of the property. The tank locations are shown on Figure 3. The tanks were subsequently removed under permit by Environmental Restoration Services of Menlo Park, California (ERS). Confirmation soil samples were collected by ERS from below each of the former tanks and the two associated former pump island locations. Elevated concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) were detected in soil samples collected from below the former western most pump island (Table 1A and Figure 4). A detailed summary of the tank removal and initial sampling activities is documented in ERS's *Underground Tank Technical Closure Report.*

Interim Remedial Action by Overexcavation – April, 2015

Based upon the findings of the elevated hydrocarbon concentrations documented during the tank removal activities, ERS prepared and implemented an *Interim Remedial Action Workplan* for the subject site. Interim remedial activities consisted of overexcavated hydrocarbon impacted soils in the area of the former dispenser location. In total, approximately 25 cubic yards of non-hazardous petroleum impacted soils were excavated and transported to Newby Island Landfill under non-hazardous manifests. Interim remedial activities are documented in ERS's *Report of Interim Remedial Action.*

Data Gap Investigation Workplan and Site Conceptual Model – June, 2015

On June 25th, 2015 Almar prepared a *Data Gap Investigation Workplan and Site Conceptual Model* for the site. This Workplan identified several data gaps which remained unaddressed prior to the being eligible for closure under the State's Low Threat Closure Policy (LTCP). The Workplan, in addition to presenting an initial site conceptual model for the site, set forth a series of tasks to close those data gaps. The ACEH reviewed the Workplan and issued a directive letter approving the proposed scope of work. As such, the Workplan was implemented in November 2015 (see below).

Soil, Water, and Soil Gas Investigation – November, 2015

On December 4, 2015 Almar prepared a *Soil, Water, and Soil Gas Investigation & Updated LTCP Data Gap Analysis* for the site. This report documented the installation and sampling of three temporary borings for soil and groundwater as well as the installation and sampling of three soil gas sample points. Based upon the results of the investigation, the ACEH requested an additional investigation be conducted to further assess the extent of subsurface contamination at the site and adequately characterize the site as it pertains to the requirements contained within the LTCP. As such, Almar prepared a Workplan and subsequent Workplan Addendum to satisfy these requirements. The Workplan and Addendum were subsequently approved by the ACEH in their May 9, 2016 Directive Letter. The investigation was implemented in May and June 2016. The details and results of the investigation were presented within the following report (see below).

Soil, Water, and Soil Gas Investigation – July, 2016

On July 5, 2016 Almar prepared a *Soil, Water, and Soil Gas Investigation* report for the site. The report documented the installation and sampling of soil and grab groundwater samples from five (5) additional temporary borings (DP-6 through DP-10) and the installation and collection of soil gas samples from one (1) temporary soil gas sampling point (SG-4). The purpose of this investigation was to 1.) Further define the extent of contaminants of concern in subsurface soils and groundwater identified in previous investigation, 2.) Determine if subsurface soils and groundwater have been impacted by the presence of subsurface hydraulic lifts formerly located near the northern property line, and 3.) Confirm the presence of PCE in soil vapor, previously detected in samples collected from the sand filled former tank pit. The results of this investigation found:

1. The vertical and lateral extent of CoCs in subsurface soils appear to be fully defined and contamination does not exist at concentrations exceeding either ESLs or recommended LTCP values.
2. The groundwater contaminate plume emanating from the subject site appears to be defined in the downgradient direction by wells RW-13 and RW-14 located on the former Exxon Station property and is less than 100 feet in length.
3. The results of this current sampling event confirmed the results of the previous sampling, as PCE was detected at a similar concentration of 310 µg/m^3 in SG-4.

Based upon these results, Almar recommended the case be reviewed for closure under the State's Low Threat Closure Policy (LTCP).

Case Review, Meeting with Oversight Agency, and Further Soil Gas Delineation – October, 2016

Based upon the findings and recommendations of the above referenced report, the ACEH called a meeting to discuss the case status. In the meeting the ACEH verbally agreed with Almar's recommendation that the case likely qualified for closure under the LTCP. However, further delineation of soil gas contaminants was necessary. As such, Almar prepared a *Soil Gas Sampling Proposal* which outlined a specific set of tasks to install and sample six (6) additional soil gas sampling points at the subject site. The proposal was approved by the ACEH in an email correspondence dated October 3, 2016 and the investigation was implemented in October 2016. The results of the investigation indicated that the fuel release case did appeared to qualify for case closure under the LTCP.

Fuel Release Case Closure and Opening of Voluntary Remedial Action Case – 2017

Based upon the findings to date, the ACEH agreed that the fuel release case associated with the site qualified for case closure under the LTCP. As such, the case was processed for closure and a Closure Letter was issued on July 18, 2017 (Appendix A). However, because PCE was known to exist in soil vapor at concentrations exceeding regulatory action levels, the Responsible Party agreed to enter the Voluntary Remedial Action Program (VRAP) to 1.) further delineate the extent of PCE in soil vapor and 2.) prepare corrective action measures to mitigate the intrusion of PCE vapors into the proposed on-site development. An additional soil gas delineation investigation was completed by Almar in June of 2016 and the results are presented in the following sections.

3.0 ADDITIONAL SOIL GAS FIELD INVESTIGATION

In order to further delineate the extent of chlorinated solvents (specifically, tetrachloroethene – PCE) previously detected on site and possibly identify a contaminant source, Almar prepared an *Additional Soil Gas Investigation Workplan* for the site dated June 7, 2017. In general, the Workplan outlined a series of tasks to install and sample ten semi-permanent soil vapor sampling points at the site. The Workplan was approved by the ACEH in their Directive Letter dated June 12, 2017 (Appendix B). The Workplan was implemented in June of 2017 and the details and results of the investigation are presented in the following sections.

3.1 Regulatory Liaison, Permitting, and Project Management

Almar represented the client with regulatory agencies in meetings and/or communications. A representative of Almar coordinated, oversaw, and/or conducted all activities detailed in this report. Almar also obtained the appropriate subsurface drilling permit from the Alameda County Public Works Agency (ACPWA) (Appendix C). As required by law, Almar marked the subject property and notified Underground Service Alert (USA) to clear the boring locations of underground utilities prior to drilling activities.

3.2 Drilling and Soil Sampling

Soil borings were advanced by Environmental Control Associates (ECA), a C-57 licensed driller (Lic. # 695970), under the direction of a licensed State of California Professional Geologist. A Geoprobe™ direct-push sampling rig, capable of continuous core soil sampling, was used to advance the temporary borings. The Geoprobe™ direct-pushed (hammered) a 2-inch diameter steel core barrel to the desired depth at each of the boring locations. The core barrels were lined with clear plastic disposable tubing to facilitate continuous soil coring and soil logging for description. Soils were logged using the United Soil Classification System (USCS). Soil samples were collected at five (5) foot intervals and where contamination was noted in the field (if any).

Soil samples for laboratory analysis were collected by cutting the desired section of disposable plastic tubing, sealing the ends of the tube with Teflon™ tape, and capped. The caps were then sealed with silicone tape, labeled, sealed in individual plastic bags, and placed in a pre-chilled ice chest with ice to remain at 4^{o} Celsius (^{o}C) until they arrived at the lab. A discussion of the soil sampling analytical results is presented in Section 4.2.

Encountered subsurface soils were logged using the Unified Soil Classification System (USCS). The boring locations are shown on Figure 4 and detailed boring logs depicting the encountered subsurface materials are presented in Appendix D.

3.3 Construction of Soil-Gas Sampling Points

Following advancement of the soil gas borings, ECA converted each boring into a semi-permanent soil gas sampling point. Each sampling point was constructed by placing ¼-inch diameter Teflon® tubing attached to a polyethylene vapor implant to 5.0 feet bgs. A sand pack consisting of #2/12 sand was then installed around the implant from 5.5 to 4.5 feet bgs. Approximately 12-inches of dry granular bentonite was placed above the sand pack, followed by a hydrated bentonite seal to the ground surface. The seal was designed to minimize ambient air from the atmosphere from intruding into the area of the polyethylene probe. Additionally, borings SV-4 and SV-6 were converted to dual-completion sampling points, with a second sampling point advanced to a depth of 15 feet bgs. Each sample point was

completed at the surface with a traffic rated well box. The individual construction details of each soil vapor sampling point are presented on the Boring Logs (Appendix D).

3.4 Soil Gas Sampling

On June 19 and 20, 2017, after allowing at least 48 hours post installation for the soil-gas sampling points to equilibrate to natural subsurface conditions, Almar conducted the purging and sampling of soil gas sampling points SV-1 through SV-10. To ensure representative soil gas samples were collected, Almar followed the steps outlined by the CA DTSC in their *Soil Gas Advisory Document* (March 2010). In general, a Helium tracer shroud was used to perform a quantitative leak test while sampling each soil gas point. A sealed chamber was placed over the head of the soil gas point. A minimum 20% Helium in air atmosphere was maintained around the sample train and above the sample point annulus. The soil gas sample was collected using a SUMA® canister supplied by the contracted laboratory. Prior to the collection of the sample, the at least 3 purge volumes of air (soil gas) were removed from the probe and tubing associated with the point. The sampling point was purged using a SUMA® canister (purge canister) attached to a flow meter which, in turn is attached to the Teflon tubing of the soil gas point. The sampling point was purged at a rate of 150 ml/minute. Once the point was purged, a sample collection SUMA® canister was attached to the Teflon tubing of the sampling point, the initial negative pressure of the canister measured (and recorded), and soil gas was delivered to the canister from the well until a negative pressure of about five-inches of Hg is noted on the vacuum gauge on the sample collection SUMA® canister. All vacuum readings were documented on the chain of custody record and are shown on the soil gas purge data sheets (Appendix E). Each sample was successfully sampled with the exception of SV-9. The sample canister for this sample point malfunctioned in the field and a sample was not collected. A discussion of the soil gas sampling analytical results is presented in Section 4.3.

4.0 SAMPLE ANALYSIS AND RESULTS

Soil and soil gas samples for laboratory analysis were collected in the methods described in Section 3.4. The analytical results are summarized in the following sections.

4.1 Laboratory Analytical Methods

Once the soil gas sample was collected, it was transported, observing formal chain-of-custody (COC) procedures to Curtis & Tompkins, Ltd. (State of California-certified testing laboratory #2896) for analysis. The soil gas sample was analyzed for VOCs (including PCE) by EPA Test Method TO-15, gasoline range organics (TPHg) by EPA Test Method TO-3, and the fixed gases Oxygen and Helium by ASTM D1946. A summary of the soil gas analytical results is presented in Section 4.3.

Additionally, soil samples collected at five foot intervals from each boring were analyzed at BC Laboratories, Inc. (State of California-certified testing laboratory #1186) for the presence of Total Petroleum Hydrocarbons as gasoline (TPHg) and the full suite of VOCs (including PCE) by EPA Test Method 8260b.

4.2 Soil Sampling Analytical Results

A total of 11 soil samples were collected and submitted for laboratory analysis. A summary of the soil soil sampling analytical laboratory results is presented in Table 1A and the complete laboratory data sheets are presented in Appendix F. A brief summary of the analytical data is presented as follows:

- No VOCs or TPHg were detected at concentrations exceeding laboratory detection limits in any of the soil samples submitted for analysis.

4.3 Soil Gas Analytical Results

A total of 11 soil gas samples were collected and submitted for laboratory analysis. A summary of the soil vapor sampling analytical laboratory results is presented in Table 3B and the complete laboratory data sheets are presented in Appendix F. A brief summary of the analytical data is presented as follows:

- **O_2** was reported in each of the 11 samples at mol % concentrations ranging from 1.1% (SV-2) to 17% (SV-5);
- **Helium** was not reported above laboratory detection limits in any of the 11 samples submitted for analysis. This indicates that no breakthrough occurred and the samples are valid;
- **TPHg** (C_6-C_{12}) was reported in each of the 11 samples submitted for analysis at concentrations ranging from 270 µg/m^3 (SV-8) to 18,000 µg/m^3 (SV-6B);
- **Benzene** was reported in three of the 11 samples submitted for analysis at a concentrations ranging from 12 µg/m^3 (SV-6A) to 30 µg/m^3 (SV-3);
- **Toluene** was reported in one of the 11 samples at a concentration of 390 µg/m^3 in sample point SV-4B;
- **Ethylbenzene** was reported in six of the 11 samples submitted for analysis at a concentrations ranging from 11 µg/m^3 (SV-5) to 52 µg/m^3 (SV-2);
- **Xylenes** (total) were reported in four of the 1 samples at concentrations ranging from 60 µg/m^3 (SV-2) to 151 µg/m^3 (SV-4A);
- **Naphthalene** was not reported in any of the 11 samples at concentrations exceeding laboratory detection limits;
- **PCE** was reported in one of the 11 samples at a concentration of 210 µg/m^3 in sample point SV-5; and
- No other contaminants of concern (COCs) were reported above laboratory detection limits in soil gas samples SV-1 through SV-10.

4.4 Discussion of Analytical Results

The purpose of this investigation was to 1.) further define the lateral and vertical extent of soil vapor contamination (specifically TPHg and PCE) identified in previous investigations and 2.) identify a source of the contamination, if possible. The results of the investigation confirm the results of previous soil gas sampling investigations at the site, in that both TPHg and PCE exist in relatively low concentrations of soil vapor across the site. To date, a total of 21 soil gas samples (including the 11 collected as part of this investigation) have been collected at the site. TPHg was detected, above laboratory detection limits in each of the 21 samples collected to date (Tables 3A and 3B). As shown on the Isoconcentration Map (Figure 8), the detected TPHg concentrations appear to be centered around the southern portion of the site, where the former pump islands were located. This suggests that the former pump islands are the source of the detected TPHg impacts. However, all detected TPHg concentrations are well below both the residential (300,000 µg/m^3) and commercial (2,500,000 µg/m^3) Environmental Screening Levels (ESLs) for TPHg. Based on these results, the detected concentrations of TPHg in soil vapor can be assumed to not pose a significant threat to human health, water resources, or the environment.

During this current investigation, PCE was detected at concentrations exceeding laboratory detection limits in just one of the 11 samples submitted for analysis (SV-5 at 210 µg/m^3). Historically, PCE was detected in six additional sample points (Table 3A). All of the detected concentrations were found in samples collected from sample points located either within or directly adjacent to the former Texaco tank pit (currently sand backfilled) located on the southern most corner of the property. This indicates that the former tank pit is the likely source of the detected PCE impacts to soil gas. Additionally, as

shown on Figure 7, the PCE soil vapor plume has been fully defined and does not appear to extend offsite.

Although several of the historical detected concentrations are slightly above their corresponding residential ESL (Table 3A), none of the detected concentrations are above commercial ESLs. The proposed new development at the site consists of six residential units and one commercial unit. As shown on Figures 6 and 7, each of the soil gas samples (SG-4, SG-5, SG-8 and SG-9) which contained concentrations of PCE exceeding residential, but below commercial ESLs, are located either within the proposed floor plan of the commercial unit or within the proposed parking areas. This indicates that the new development can be constructed as proposed without a vapor barrier being installed below the proposed development. However, as requested by the ACEH, to ensure that the detected soil vapor contaminates do not adversely impact the occupants of the proposed development, Almar recommends corrective actions be taken to mitigate these impacts. These corrective actions should consist of installing a passive vapor venting system within the subgrade of the proposed development. The details of the recommended venting system are presented in the following sections.

5.0 CORRECTIVE ACTION PLAN

Prior to beginning construction on the new site development, and implementing the proposed corrective action activities (see Section 5.1), site-specific Health and Safety Plans (HaSP) and Soil Management Plans (SMP) should be prepared for the site. The HaSP is a requirement of the Occupational Safety and Health Administration (OSHA), "Hazardous Waste Operation and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Safety and Health Administration (Cal/OSHA) guidelines (CCR Title 8, section 5192). The HaSP should be designed to address safety provisions during field activities and protect the field crew from physical and/or chemical hazards potentially encountered during redevelopment activities.

As noted above, soil and soil vapor impacted with concentrations of COCs may be present at various on-site locations. As such an SMP should be prepared. The purpose of the SMP will be to present protocols to be followed during construction activities in the event that subsurface contamination is encountered.

5.1 Vapor Mitigation System

The purpose of the CAP is to ensure that the detected soil vapor contaminates do not adversely impact the occupants of the proposed development. These goals will be achieved by installing a passive vapor venting system within the subgrade of the proposed development. ACDEH will likely require long-term data to confirm the site conditions do not pose a significant vapor intrusion risk to site occupants. Since long-term monitoring cannot be completed prior to construction of the planned building, a vapor mitigation system will be installed beneath the proposed structure where residual VOC and TPHg impacts are known to exist. The vapor mitigation system will consist of a passive subslab ventilation (PSSVS). The proposed PSSVS locations and details are shown on the Figures presented in Appendix G.

The PSSVS will consist of a subslab low-profile piping network within the planned layer of permeable subgrade material, with collection pipes feeding to vertical risers that direct exhaust above the roofline. The PSSVS has been designed by Pacific Engineering & Construction, Inc. (PEC) and is presented in Appendix G.

At least two sampling events (one during dry and one during wet seasons) of subslab gas within the passive ventilation piping will be conducted. If subslab gas concentrations are found to exceed applicable screening levels, it is possible that additional corrective actions, such as converting the passive venting system to an active venting system, may be necessary.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The following conclusions are based upon review of historical environmental reports, interpretation of analytical data, and field measurements collected during June 2017:

- Eight five foot and two dual-completion (5 and 15 foot bgs) semi-permanent soil vapor sampling points were successfully installed as part of this current investigation.
- To date, a total of 21 soil gas samples have been collected at the site, including eleven as part of this current investigation. The sampling results indicate that both TPHg and PCE exist in relatively low concentrations of soil gas across the site.
- All detected TPHg concentrations are well below both the residential (300,000 µg/m^3) and commercial (2,500,000 µg/m^3) Environmental Screening Levels (ESLs). This indicates that the detected concentrations of TPHg can be assumed to not pose a significant threat to human health, water resources, or the environment. The source of TPHg impacts appears to be the former pump islands located near the middle of the site. The TPHg soil vapor plume has been fully defined and does not appear to extend off-site (Figure 8).
- During this current investigation, PCE was detected at concentrations exceeding laboratory detection limits in just one of the 11 soil gas samples submitted for analysis (SV-5 at 210 µg/m^3). Historically, PCE was detected in six additional sample points. The source of PCE impacts to soil vapor appears to be the former Texaco tank pit located near the southern corner of the site. The PCE soil vapor plume has been fully defined and does not appear to extend off-site (Figure 7).
- Although several of the historical detected PCE concentrations in soil gas are slightly above their corresponding residential ESL, none of the detected concentrations are above commercial ESLs. The proposed new development at the site consists of six residential units and one commercial unit. Each of the soil gas samples which contained concentrations of PCE exceeding residential, but below commercial ESLs, are located either within the proposed floor plan of the commercial unit or within the proposed parking areas.
- No VOCs or TPHg were detected at concentrations exceeding laboratory detection limits in any of the soil samples collected as part of this current investigation.

6.2 Recommendations

Based on the data collected during this investigation, review of historical documents, and the above conclusions, Almar makes the following recommendations:

- To ensure that the detected soil vapor contaminates do not adversely impact the occupants of the proposed development, Almar recommends corrective actions be taken to mitigate these impacts. These corrective actions should consist of installing a passive vapor venting system within the subgrade of the proposed development. Details of the recommended venting system our outlined in the CAP presented in Section 5.0 of this report.

- Prior to beginning construction on the new development, each of the semi-permanent soil vapor sampling points installed on-site as part of this investigation should be properly destroyed by a licensed C-57 driller under permit from the ACPWA.

7.0 CERTIFICATION AND DISTRIBUTION

To the best of our knowledge, all statements made in this Report are true and correct. This report is based on data provided by the client and others, site conditions observed, samples collected and analytical data. No warranty whatsoever is made that this report addresses all contamination found on the site.

Respectfully submitted,

Forrest N. Cook
Owner/Principal Scientist
Almar Environmental
California Professional Geologist #8201 (exp 9/18)

cc:
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8.0 REFERENCES

Almar Environmental. March 24, 2016. *Soil, Groundwater, and Soil Gas Workplan.* 3101 35th Avenue, Oakland, California.

Almar Environmental. April 18, 2016. *Soil, Groundwater, and Soil Gas Workplan Addendum.* 3101 35th Avenue, Oakland, California.

Environmental Restoration Services. January 27, 2015. *Underground Tank Technical Closure Report.* 3101 35th Avenue, Oakland, California.

Environmental Restoration Services. May 6, 2015. *Report of Interim Remedial Action.* 3101 35th Avenue, Oakland, California.

Graymer, R.W. 1996. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*. U.S. Geological Survey, Menlo Park, CA.

Martin & Associates. January 31, 2005. *Phase I Environmental Site Assessment for 3101 35th Avenue, Oakland, California.*

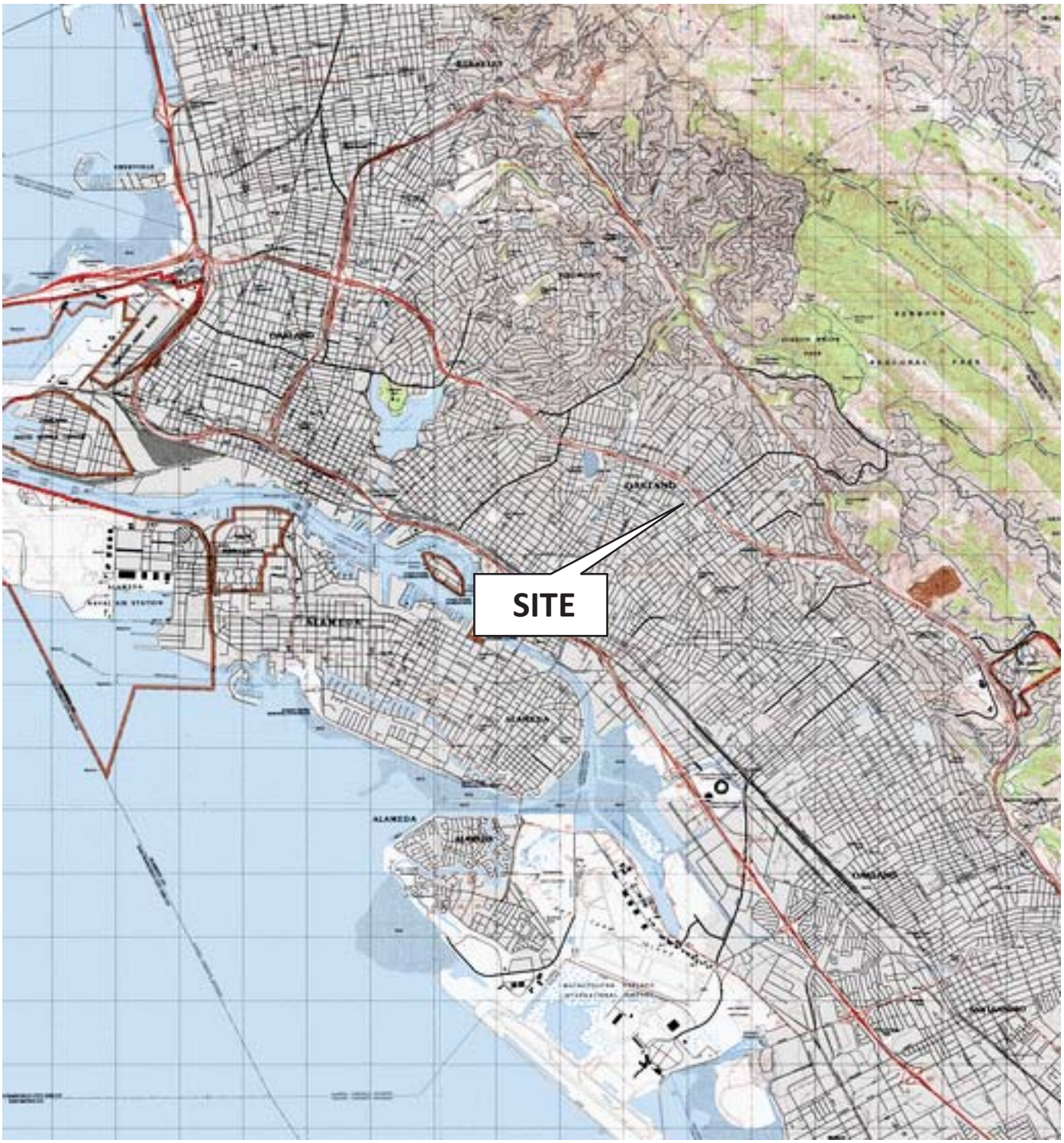
Pangea Environmental Services, Inc. October 7, 2016. *Draft Corrective Action Plan.* 1233 Bockman Road, San Lorenzo, California.

Piers Environmental Services, Inc. October 2014. *Phase I Environmental Site Assessment for 3101 35th Avenue, Oakland, California.*

United States Department of the Interior Geologic Survey (USGS). 1954, Revised 1994. Oakland East, California 7.5-Minute Quadrangle.

Weber Hayes & Associates. May 14, 2013. *Quarterly Groundwater Monitoring Report*. Former Exxon Station, 3055 35th Avenue, Oakland, California.

FIGURES



SOURCE: USGS 1:24,000 SCALE SERIES OAKLAND EAST, CA QUAD

APPROX. SCALE

0 1.5 3.0 MI

ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

SITE VICINITY TOPO MAP

FIGURE

1

SOURCE: Google Earth, 2015

APPROX. SCALE

0 60 120 FT.

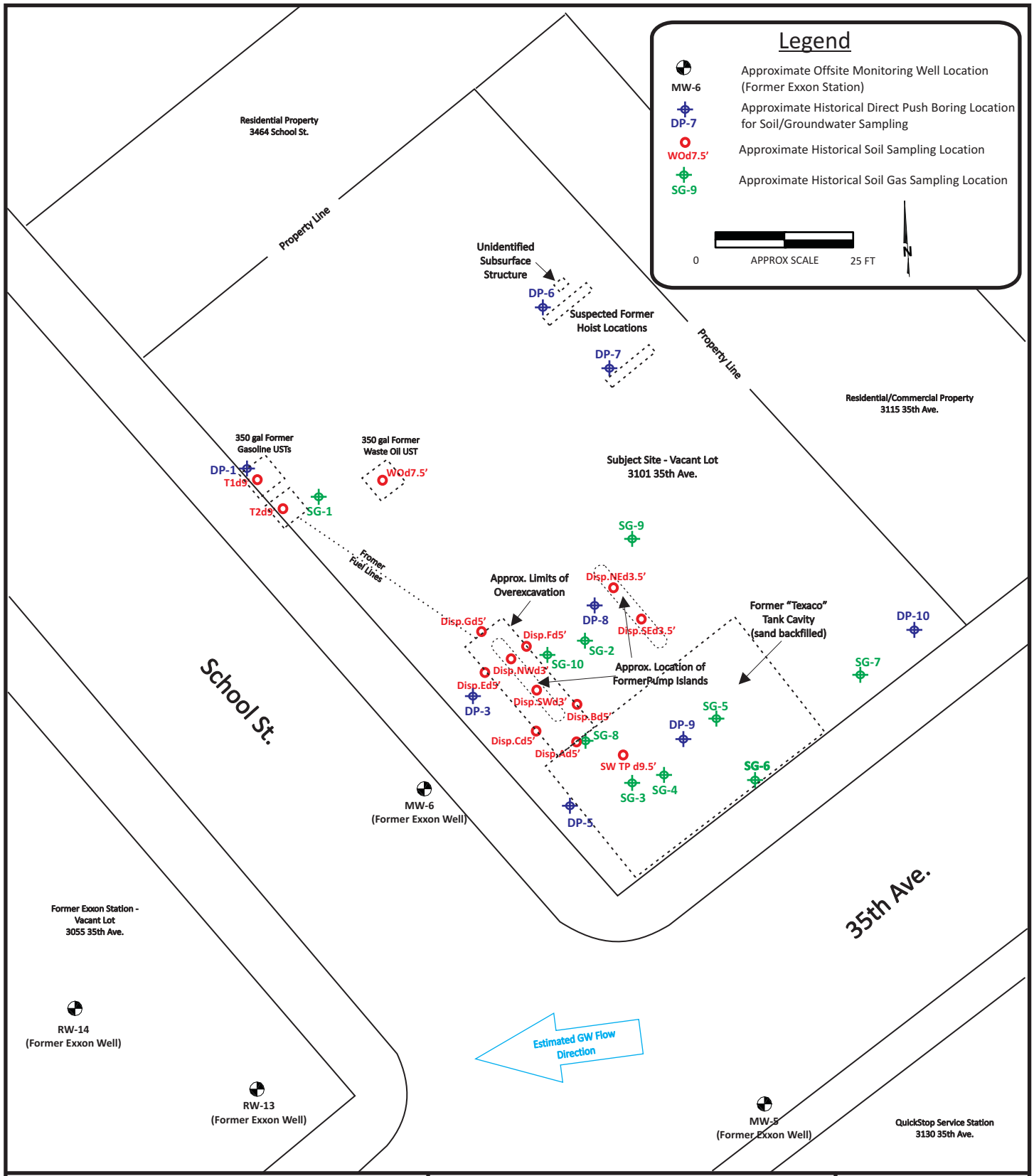
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

AERIAL PHOTOGRAPH OF SITE AREA

FIGURE

2



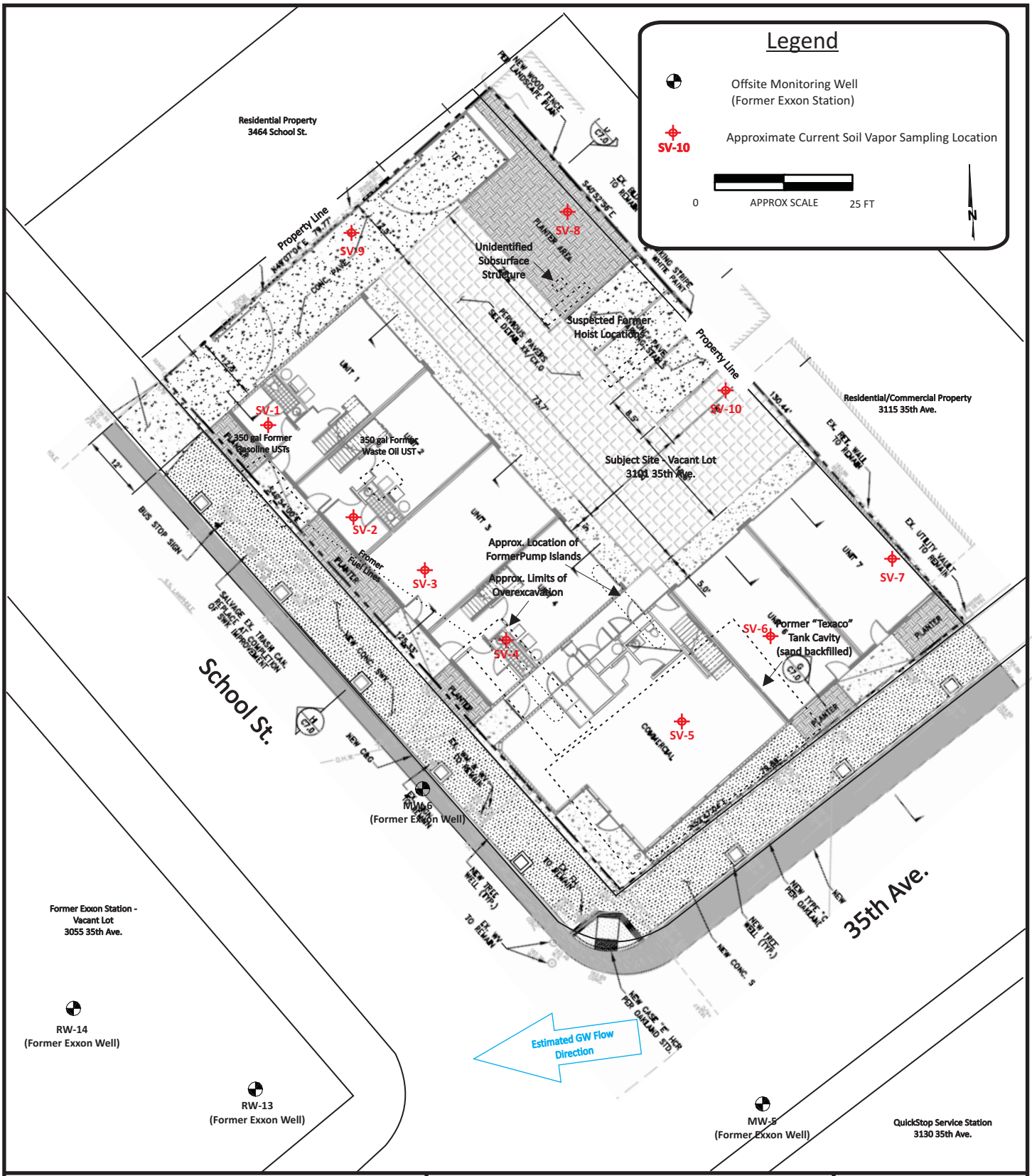
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

DETAILED SITE MAP
SHOWING HISTORICAL SAMPLING LOCATIONS

FIGURE

3



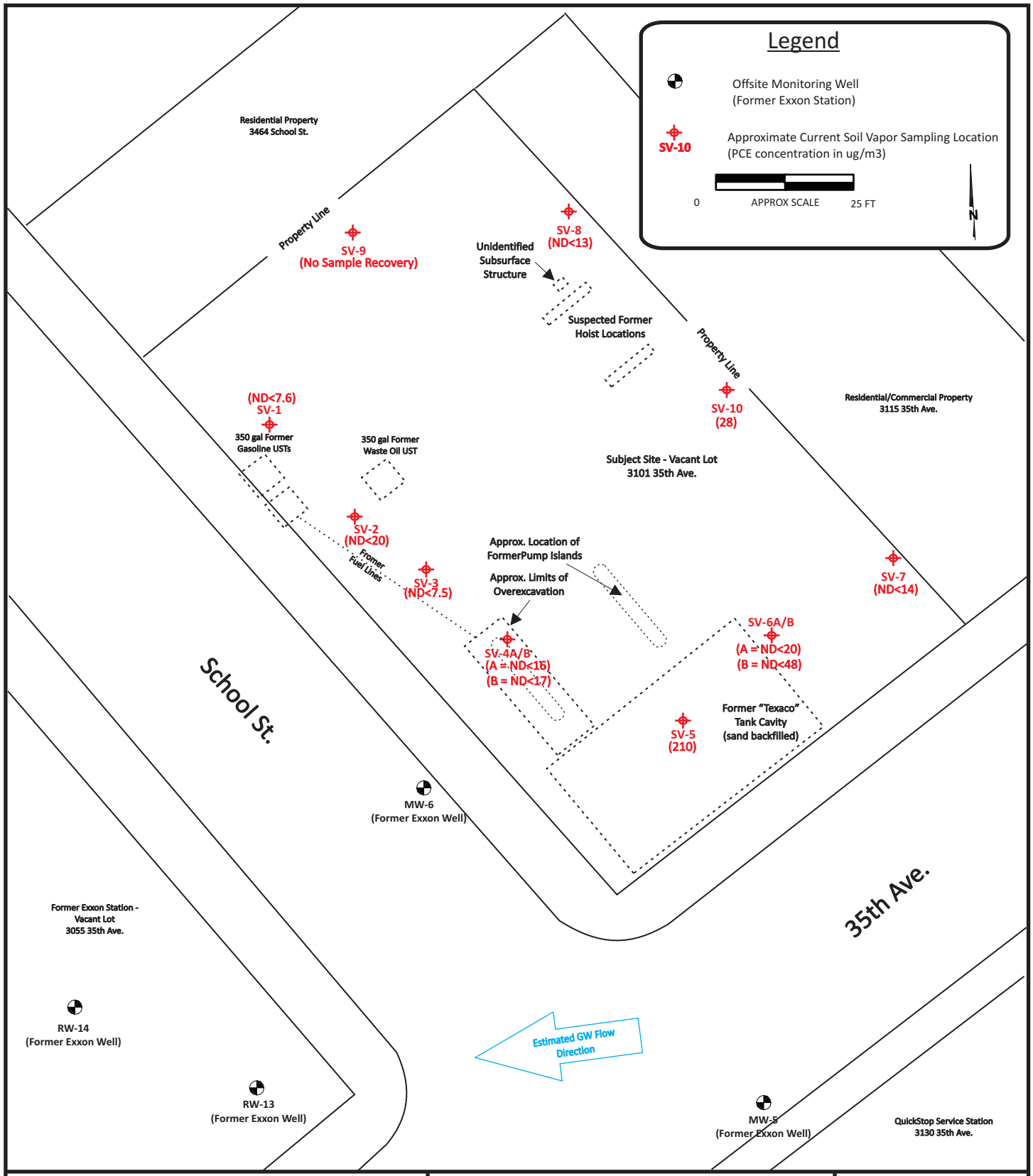
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

SITE MAP SHOWING CURRENT
SOIL VAPOR SAMPLING LOCATIONS

FIGURE

4



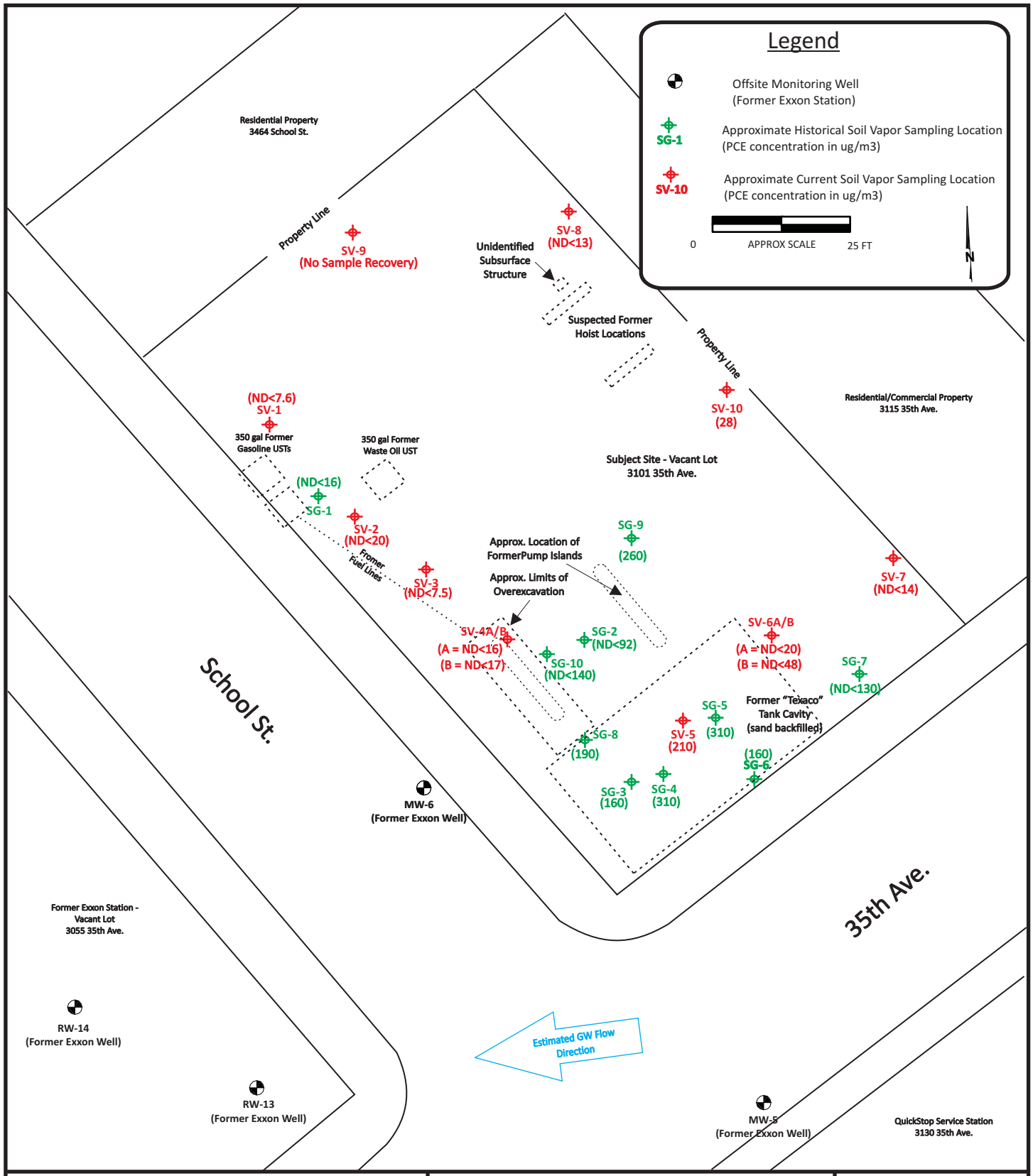
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

SITE MAP SHOWING CURRENT SOIL VAPOR SAMPLING RESULTS

FIGURE

5



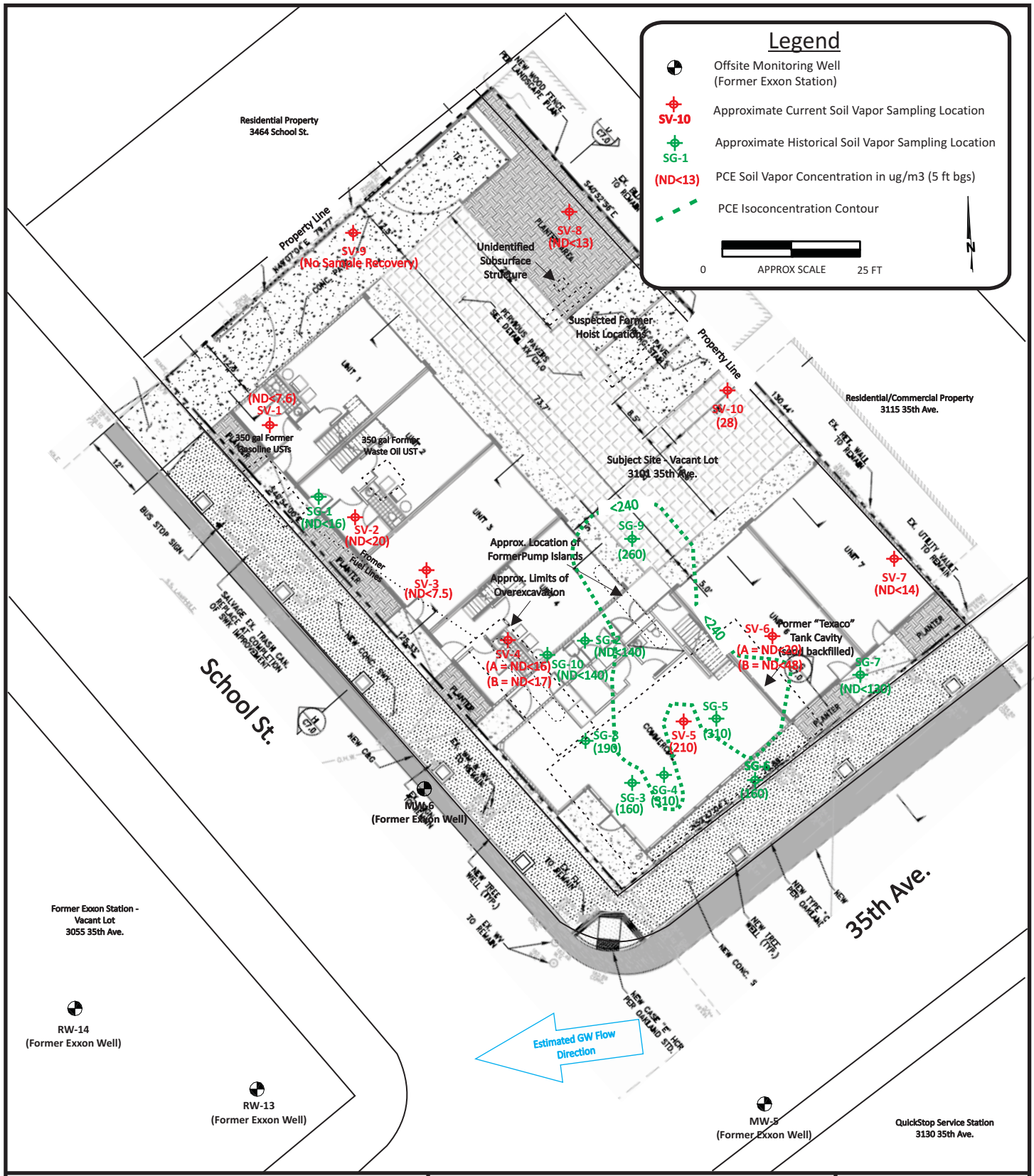
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

SITE MAP SHOWING CURRENT & HISTORICAL SOIL VAPOR SAMPLING RESULTS

FIGURE

6



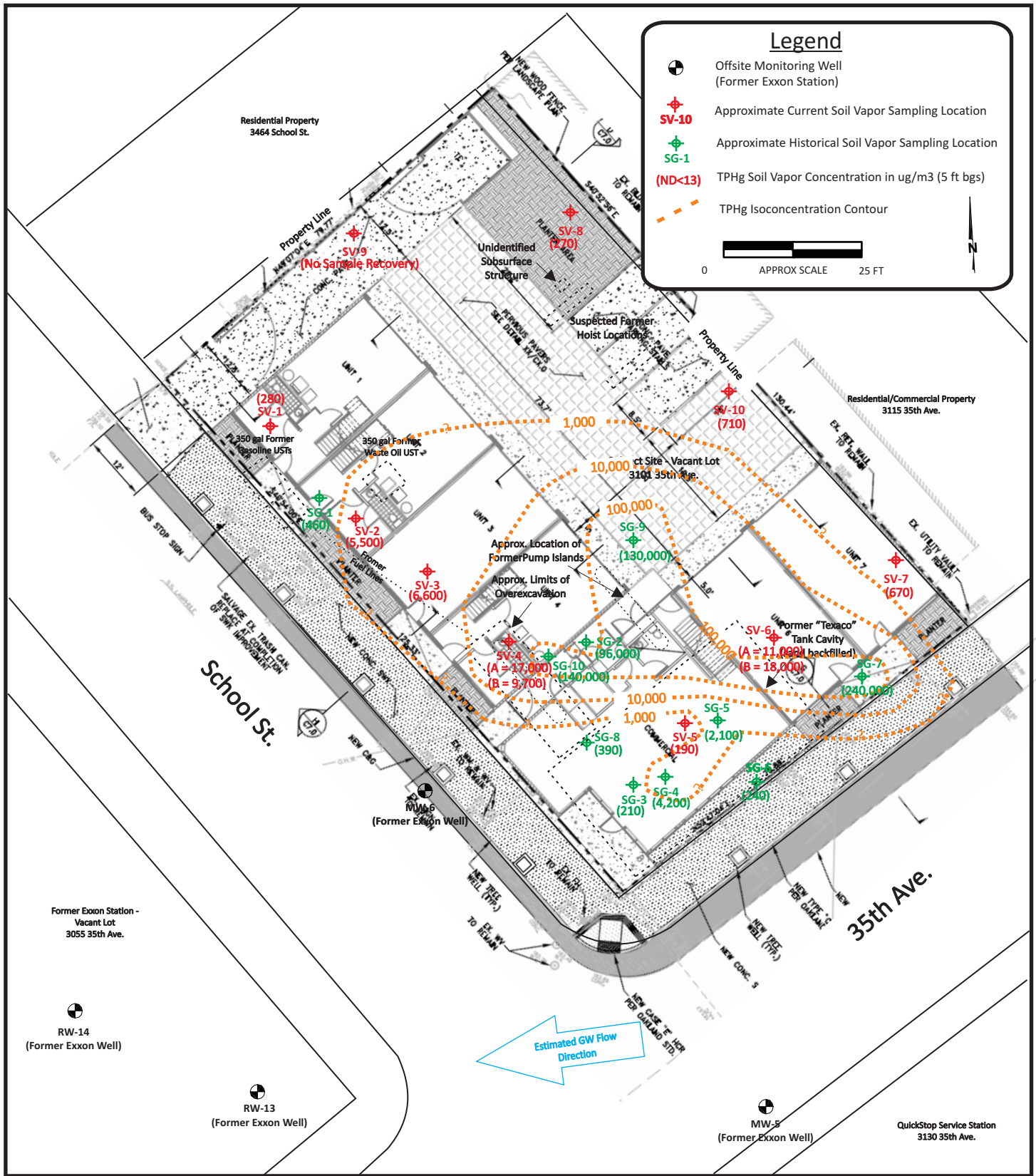
ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

PCE IN SOIL VAPOR
ISOCONCENTRATION MAP

FIGURE

7



ALMAR environmental

3101 35th AVENUE
OAKLAND, CALIFORNIA

TPHg IN SOIL VAPOR
ISOCONCENTRATION MAP

FIGURE

8

TABLES

TABLE 1A
SUMMARY OF CURRENT and HISTORICAL SOIL ANALYTICAL DATA - Hydrocarbons and VOCs
3101 35th Avenue
Oakland, California

Sample ID	Sample Depth (ft.)	Sample Date	TPHg (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)	B (mg/Kg)	T (mg/Kg)	E (mg/Kg)	X (mg/Kg)	MtBE (mg/Kg)	Napth. (mg/Kg)	TBA (mg/Kg)	Other VOCs (mg/Kg)
WO d 7.5'	7.5	01/27/15	ND<0.25	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.010	---	All ND
T1 d 9'	9.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
T2 d 9'	9.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Disp. SW d 3'	3.0	01/27/15	**230**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Disp. NW d 3'	3.0	01/27/15	**850**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Disp. SE d 3.5'	3.5	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Disp. NE d 3'	3.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
SW TP d 9.5'	9.5	01/27/15	**180**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Dispenser SP	stopckpile	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
Main TP SP	Stockpile	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	---	All ND
WO SP	Stockpile	01/27/15	**32**	**84**	**360**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	**0.71**	---	All ND
Disp.Ad5'	5.0	04/16/15	**46**	---	---	ND<0.005	ND<0.005	ND<0.005	**0.069**	ND<0.05	---	---	---
Disp.Bd4'	4.0	04/16/15	**1.1**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.050	ND<0.05	---	---	---
Disp.Cd5'	5.0	04/16/15	**77**	---	---	ND<0.001	ND<0.001	**0.17**	**0.22**	ND<0.10	---	---	---
Disp.Dd5'	5.0	04/16/15	**110**	---	---	ND<0.05	**0.21**	**0.87**	**0.16**	ND<0.05	---	---	---
Disp.Ed5'	5.0	04/16/15	**21**	---	---	ND<0.05	**0.031**	**0.012**	**0.16**	ND<0.05	---	---	---
Disp.Fd5'	5.0	04/16/15	**68**	---	---	ND<0.05	ND<0.005	ND<0.005	**0.035**	ND<0.05	---	---	---
Disp.Gd4'	4.0	04/16/15	ND<1.0	---	---	ND<0.05	ND<0.005	ND<0.005	ND<0.050	ND<0.05	---	---	---
Disp.Hd4'	4.0	04/16/15	**68**	---	---	ND<0.05	**0.34**	ND<0.050	**0.093**	ND<0.05	---	---	---
ESL Residential			**770**	**240**	**11,000**	**0.250**	**1,000**	**5.5**	**600**	**44**	**1.9**	**---**	**varies**
LTCP Residential (0' to 5')			**---**	**---**	**---**	**1.9**	**---**	**21.0**	**---**	**---**	**9.7**	**---**	**varies**
LTCP Residential (5' to 10')			**---**	**---**	**---**	**2.8**	**---**	**32.0**	**---**	**---**	**9.7**	**---**	**varies**

Continued.

TABLE 1A
SUMMARY OF CURRENT and HISTORICAL SOIL ANALYTICAL DATA - Hydrocarbons and VOCs
3101 35th Avenue
Oakland, California

Sample ID	Sample Depth (ft.)	Sample Date	TPHg (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)	B (mg/Kg)	T (mg/Kg)	E (mg/Kg)	X (mg/Kg)	MtBE (mg/Kg)	Napth. (mg/Kg)	TBA (mg/Kg)	Other VOCs (mg/Kg)
DP-1d5.0	5.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-1d10.0	10.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-1d15.0	15.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-3d5.0	5.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-3d10.0	10.0	11/02/15	**12**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-3d20.0	20.0	11/02/15	**0.73**	---	---	**0.0023**	**0.013**	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-3d30.0	30.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-5d5.0	5.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-5d10.0	10.0	11/02/15	**6.1**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-5d15.0	15.0	11/02/15	**0.30**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-5d20.0	20.0	11/02/15	**18**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
DP-5d30.0	30.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
SG-1d5.0	5.0	11/02/15	**0.065**	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
SG-2d5.0	5.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
SG-3d5.0	5.0	11/02/15	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	---
SG-4d5.0	5.0	05/31/16	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-6d5.0	5.0	05/31/16	ND<0.20	ND<10.0	**42**	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-6d10.0	10.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-7d5.0	5.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-7d10.0	10.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-8d5.0	5.0	05/31/16	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-8d10.0	10.0	05/31/16	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-9d5.0	5.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-9d8.0	8.0	05/31/16	**3.2**	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND[1]
DP-9d15.0	15.0	05/31/16	**1.0**	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-10d5.0	5.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
DP-10d10.0	10.0	05/31/16	ND<0.20	ND<10.0	ND<20.0	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
ESL Residential			**770**	**240**	**11,000**	**0.250**	**1,000**	**5.5**	**600**	**44**	**1.9**	**---**	**varies**
LTCP Residential (0' to 5')			**---**	**---**	**---**	**1.9**	**---**	**21.0**	**---**	**---**	**9.7**	**---**	**varies**
LTCP Residential (5' to 10')			**---**	**---**	**---**	**2.8**	**---**	**32.0**	**---**	**---**	**9.7**	**---**	**varies**

cont.

TABLE 1A
SUMMARY OF CURRENT and HISTORICAL SOIL ANALYTICAL DATA - Hydrocarbons and VOCs
3101 35th Avenue
Oakland, California

Sample ID	Sample Depth (ft.)	Sample Date	TPHg (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)	B (mg/Kg)	T (mg/Kg)	E (mg/Kg)	X (mg/Kg)	MtBE (mg/Kg)	Napth. (mg/Kg)	TBA (mg/Kg)	Other VOCs (mg/Kg)
SV-1d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-2d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-4d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-4d15.0	15.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-5d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-6d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-6d15.0	15.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-7d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-8d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-9d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
SV-10d5.0	5.0	06/15/17	ND<0.20	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.005	ND<0.005	ND<0.050	All ND
ESL Residential			**770**	**240**	**11,000**	**0.250**	**1,000**	**5.5**	**600**	**44**	**1.9**	**---**	**varies**
LTCP Residential (0' to 5')			**---**	**---**	**---**	**1.9**	**---**	**21.0**	**---**	**---**	**9.7**	**---**	**varies**
LTCP Residential (5' to 10')			**---**	**---**	**---**	**2.8**	**---**	**32.0**	**---**	**---**	**9.7**	**---**	**varies**

Notes:

11/25/14 & 4/16/15 samples collected by ERS

--- = Parameter not analyzed

<0.5 / ND = Not present at or above practical laboratory detection limit

mg/Kg = micrograms per kilogram = parts per million = ppm

ESLs = RWQCB Environmental Screening Levels - Feb. 2016 (Table S-1: Res. Shallow Soil Exposure)

LTCP = Low Threat Closure Policy - Table 1: Concentrations of Petroleum Constituents in soil that will have no significant risk of adversly affecting human health

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

MtBE = Methyl-t-butyl ether

TBA = tert Butyl Alcohol

1 = n-Butylbenzene @ 0.022 mg/Kg & sec-Butylbenzen @ 0.0096mg/Kg

Bolded Value =detected concentration

Shaded Value = concentration excedes either ESL or LTCP value

TABLE 1B
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA - PAHs
3101 35th Avenue
Oakland, California

Sample ID	WO d 7.5'	WO SP	DP-6d5.0	DP-6d10.0	DP-7d5.0	DP-7d10.0	LTCP Res. 0 to 5 ft bgs (mg/Kg)	LTCP Res. 5 to 10 ft bgs (mg/Kg)	Res. ESL (mg/Kg)
Sample Depth	7.5 ft bgs	Stockpile	5.0 ft bgs	10 ft bgs	5.0 ft bgs	10 ft bgs			
Sample Date	01/27/15	01/27/15	05/31/16	05/31/16	05/31/16	05/31/16			
Units	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)			
Acenaphthene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**16**
Acenaphthylene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**13**
Anthracene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**2.8**
Benzo[a]anthracene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.7**
Benzo[b]fluoranthene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.7**
Benzo[k]fluoranthene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**2.6**
Benzo[a]pyrene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.07**
Benzo[g,h,i]perylene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**2.5**
Chrysene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**3.8**
Dibenzo[a,h]anthracene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.07**
Fluoranthene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**60**
Fluorene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**8.9**
Indeno[1,2,3-cd]pyrene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.7**
1-Methylnaphthalene	ND<0.010	**0.66**	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**NA**
2-Methylnaphthalene	ND<0.010	**1.2**	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**0.25**
Napthalene	ND<0.010	**0.71**	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**9.7**	**9.7**	**1.2**
Phenanthrene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**11**
Pyrene	ND<0.010	ND<0.010	ND<0.10	ND<0.10	ND<0.10	ND<0.10	**0.063**	**NA**	**85**

Notes:
--- = Parameter not analyzed
<0.5 / ND = Not present at or above reporting detection limit
mg/Kg = micrograms per kilogram = parts per million = ppm
ESLs = RWQCB Environmental Screening Levels - Feb. 2016 (Table S-1: Res. Shallow Soil Exposure)
Bolded Value =detected concentration
Shaded Value = concentration excedes either ESL or LTCP value
PAH = polynuclear aromatic hydrocarbons

TABLE 1C
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA - Metals
3101 35th Avenue
Oakland, California

Sample ID	Sample Depth (ft)	Sample Date	Sb (mg/Kg)	As (mg/Kg)	Ba (mg/Kg)	Be (mg/Kg)	Cd (mg/Kg)	Cr (mg/Kg)	Co (mg/Kg)	Cu (mg/Kg)	Pb (mg/Kg)	Hg (mg/Kg)	Mo (mg/Kg)	Ni (mg/Kg)	Se (mg/Kg)	Ag (mg/Kg)	Tl (mg/Kg)	V (mg/Kg)	Zn (mg/Kg)
WO d 7.5'	7.5	01/27/15	---	---	---	---	**ND<0.25**	**46**	---	---	**6.9**	---	---	**100**	---	---	---	---	**120**
T1 d 9'	9.0	01/27/15	---	---	---	---	---	---	---	---	**6.5**	---	---	---	---	---	---	---	---
T2 d 9'	9.0	01/27/15	---	---	---	---	---	---	---	---	**9.7**	---	---	---	---	---	---	---	---
Disp. SW	3.0	01/27/15	---	---	---	---	---	---	---	---	**25**	---	---	---	---	---	---	---	---
Disp. NW	3.0	01/27/15	---	---	---	---	---	---	---	---	**35**	---	---	---	---	---	---	---	---
Disp. SE d	3.5	01/27/15	---	---	---	---	---	---	---	---	**13**	---	---	---	---	---	---	---	---
Disp. NE d	3.0	01/27/15	---	---	---	---	---	---	---	---	**8.3**	---	---	---	---	---	---	---	---
SW TP d	9.5	01/27/15	---	---	---	---	---	---	---	---	**18**	---	---	---	---	---	---	---	---
Dispenser	stopckpile	01/27/15	---	---	---	---	---	---	---	---	**170**	---	---	---	---	---	---	---	---
Main TP	Stockpile	01/27/15	---	---	---	---	---	---	---	---	**43**	---	---	---	---	---	---	---	---
WO SP	Stockpile	01/27/15	---	---	---	---	**0.32**	**52**			**65**	---	---	**80**	---	---	---	---	**160**
DP-6d5.0	5.0	05/31/16	ND<4.4	**5.3**	**160**	**0.43**	ND<0.44	**54**	**10**	**78**	**6.7**	**0.099**	**0.52**	**67**	ND<4.4	**0.3**	ND<4.4	**52**	**92**
DP-6d10.0	10.0	05/31/16	ND<5.0	**9.1**	**240**	**0.45**	ND<0.50	**51**	**15**	**81**	**8.2**	**0.19**	**0.26**	**72**	ND<5.0	**0.35**	ND<5.0	**70**	**100**
DP-7d5.0	5.0	05/31/16	ND<5.0	**10**	**220**	**0.4**	ND<0.50	**54**	**17**	**67**	**11**	**0.082**	**0.35**	**91**	ND<5.0	**0.3**	ND<5.0	**62**	**99**
DP-7d10.0	10	05/31/16	ND<5.0	**7.7**	**220**	**0.4**	ND<0.50	**57**	**17**	**83**	**8.1**	**0.16**	**0.35**	**70**	ND<5.0	**0.31**	ND<5.0	**74**	**110**
ESL Residential			**31**	**0.067**	**15,000**	**0.083**	**0.014**	**NA**	**0.23**	**3100**	**80**	**13**	**390**	**820**	**390**	**6900**	**0.78**	**140,000**	**23,000**
TTLC			**500**	**500**	**10,000**	**75**	**100**	**500**	**8,000**	**2,500**	**1,000**	**20**	**3,500**	**2,000**	**100**	**500**	**700**	**2,400**	**5,000**

Notes:

Sb = Antimony
As = Arsenic
Ba = Barium
Be = Berylium
Ca = Cadmium
Cr = Chromium (total)
Co = Cobalt
Cu = Copper
Pb = Lead
Hg = Mercury
Mo = Molybdenum
Ni = Nickel
Se = Selenium
Ag = Silver
Tl = Thalium
V = Vanadium
Z = Zinc

Bolded Value = a detected concentration
Shaded Value = concnetration detected above corresponding TTLC

<0.5 / ND = Not present at or above reporting detection limit
mg/Kg = milligrams per kilogram = parts per million = ppm
ESLs = RWQCB Environmental Screening Levels - Feb. 2016 (Table S-1: Res. Shallow Soil Exposure)
TTLC = Total Threshold Limit Concentration

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL DATA
3101 35th Avenue
Oakland, California

Sample ID	Sample Date	TPHg (ug/L)	TPHd (ug/L)	TPHmo (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MtBE (ug/L)	Naphth. (ug/L)	TBA (ug/L)	PCE (ug/L)	Other VOCs (ug/L)	Metals* (ug/L)
DP-1	11/03/15	ND<50	---	---	ND<0.50	**0.11**	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<10	---	---	---
DP-3	11/03/15	**1,000**	**---**	**---**	**19**	**1.1**	**34**	**5.1**	ND<0.50	**7.2**	ND<10	---	---	---
DP-5	11/03/15	**3,700**	**---**	**---**	**2.2**	**1.5**	**1.4**	**5.5**	ND<0.50	**2.6**	ND<10	---	---	---
DP-6	06/01/16	ND<50	ND<200	**500**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	**---**	ND<0.50	All ND	All ND
DP-8	06/01/16	**57**	**---**	**---**	**3.3**	ND<0.50	**1.9**	ND<1.0	ND<0.50	ND<0.50	**---**	ND<0.50	All ND[1]	---
DP-9	06/01/16	**330**	**---**	**---**	**3.4**	ND<0.50	**2.5**	ND<1.0	ND<0.50	ND<0.50	**---**	ND<0.50	All ND[2]	---
DP-10	06/01/16	ND<50	**---**	**---**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	**---**	ND<0.50	All ND	---
Tier 1 ESL		**100**	**100**	**50,000**	**1.0**	**40**	**13**	**20**	**5.0**	**0.12**	**12.0**	**3.0**	**varies**	**varies**

Notes:

All samples collected as "grab" groundwater samples
--- = Parameter not analyzed
<0.5 / ND = Not present at or above laboratory practical quantitation limit
ug/L = micrograms per Liter = parts per billion = ppb
Tier 1 ESL = RWQCB Environmental Screening Level (February 2016)
LTCP = Low Threat Closure Policy - Table 1: Concentrations of Petroleum Constituents in soil that will have no significant risk of adversly affecting human health
TPHg = Total Petroleum Hydrocarbons as gasoline
TPHd = Total Petroleum Hydrocarbons as diesel
TPHmo = Total Petroleum Hydrocarbons as motor oil
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
Naphth. = Naphthalene
MtBE = Methyl-t-butyl ether
TBA = tert Butyl Alcohol
PCE = tetrachloroethene

1 = Isopropylbenzene @ 0.70 ug/L & n-Propylbenzene @ 1.2 ug/L
2 = n-Butylbenzene & sec-Butylbenzene @ 1.0 ug/L, & Isoprpylbenzene = 2.2 ug/L
n-Propylbenzene = 3.4 ug/L & 1.3.5-Trimethylbenzene = 2.0 ug/L
Metals* = Cd, Cr, Pb, Ni, & Zn

Bolded Value =detected concentration
Shaded Value = concentration excedes either ESL or LTCP value

TABLE 3A
SUMMARY OF PERTINENT HISTORICAL SOIL VAPOR ANALYTICAL DATA
3101 35th Ave.
Oakland, California

SAMPLE ID	Sample Depth (ft.)	Sample Date	Oxygen (O_2)	Helium	TPHg (C6-C12)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	MtBE	PCE	TCE	cis,1,2-DCE	Vinyl Chloride	Naphthalene
			Mol%	Mol%	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)		($\mu g/m^3$)
SG-1	5.0	11/09/15	**2.6**	ND<0.47	**460**	**10**	**28**	ND<10	ND<9.2	ND<8.4	ND<16	ND<12	ND<9.2	ND<5.9	ND<49
SG-2	5.0	11/09/15	**4.1**	ND<0.45	**96,000**	**61**	**91**	ND<59	**74**	ND<49	ND<92	ND<73	ND<54	ND<35	ND<290
SG-3	5.0	11/09/15	**15**	ND<0.19	**210**	**3.3**	**7.8**	ND<0.97	ND<1.9	ND<3.5	**160**	ND<5.2	ND<3.8	ND<2.5	ND<20
SG-4	5.0	06/01/16	**17**	ND<0.21	**4,200**	ND<3.4	**4.4**	ND<4.8	ND<9.2	ND<3.8	**310**	ND<5.6	ND<4.2	ND<2.7	ND<22
SG-5	5.0	10/10/16	**16**	ND<0.20	**2,100**	**6.8**	**11**	ND<4.3	**7.6**	ND<3.6	**310**	ND<5.3	ND<3.9	ND<2.5	ND<21
SG-6	5.0	10/10/16	**17**	ND<0.19	**240**	ND<3.1	**4.1**	ND<4.2	ND<8.4	ND<3.5	**160**	ND<5.2	ND<3.8	ND<2.5	ND<20
SG-7	5.0	10/10/16	**9.8**	ND<0.19	**240,000**	ND<62	**290**	ND<84	**120**	ND<70	ND<130	ND<100	ND<77	ND<50	ND<410
SG-8	5.0	10/10/16	**17**	ND<0.18	**390**	ND<2.9	**6.9**	ND<3.9	ND<7.8	ND<3.2	**190**	ND<4.8	ND<3.6	ND<2.3	ND<19
SG-9	5.0	10/10/16	**6.5**	ND<0.20	**130,000**	ND<63	ND<74	ND<86	ND<172	ND<71	**260**	ND<110	ND<78	ND<50	ND<410
SG-10	5.0	10/10/16	**5.9**	ND<0.21	**140,000**	ND<67	ND<79	ND<91	ND<182	ND<75	ND<140	ND<53	ND<83	ND<53	ND<440
Residential ESL			**NA**	**NA**	**300,000**	**48**	**160,000**	**560**	**52,000**	**5,400**	**240**	**340**	**4,100**	**18**	**41**
Comm/Ind ESL			**NA**	**NA**	**2,500,000**	**420**	**1,300,000**	**4,900**	**440,000**	**47,000**	**2,100**	**3,000**	**35,000**	**160**	**360**

Notes:

--- = Parameter not Sampled
NA = Not analyzed or Not established
<0.5 / ND = Not present at or above reporting detection limit
ug/m3 = micrograms per cubic meter = ppmv
ESLs = RWQCB Environmental Screening Levels - Feb. 2016 (Table SG-1: Vapor Intrusion: Human Health Risk Levels)
Bold = detected concentration
Shaded Value = concentration excedes ESL value

PCE = Tetrachloroethene
TCE = Trichloroethene
cis,1,2-DCE = cis-1,2-Dichloroethene

TABLE 3B
SUMMARY OF PERTINENT CURRENT SOIL VAPOR ANALYTICAL DATA
3101 35th Ave.
Oakland, California

SAMPLE ID	Sample Depth (ft.)	Sample Date	Oxygen (O_2)	Helium	TPHg (C6-C12)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	MtBE	PCE	TCE	cis,1,2-DCE	Vinyl Chloride	Naphthalene
			Mol%	Mol%	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)		(µg/m³)
SV-1	5.0	06/20/17	**7.2**	ND<0.23	**280**	ND<3.6	ND<170	ND<4.9	ND<9.8	ND<4.1	ND<7.6	ND<6.0	ND<4.5	ND<2.9	ND<24
SV-2	5.0	06/20/17	**1.1**	ND<0.20	**5,500**	**17**	ND<440	**52**	**60**	ND<11	ND<20	**16**	ND<12	ND<7.5	ND<61
SV-3	5.0	06/20/17	**11**	ND<0.22	**6,600**	**30**	ND<170	**28**	**20.2**	ND<4.0	ND<7.5	ND<6.0	ND<4.4	ND<2.8	ND<23
SV-4A	5.0	06/19/17	**3.7**	ND<0.24	**17,000**	ND<7.7	ND<360	**40**	**151**	ND<8.7	ND<16	ND<13	ND<9.6	ND<6.2	ND<51
SV-4B	15.0	06/19/17	**6.5**	ND<0.51	**9,700**	ND<8.2	**390**	**22**	**71**	ND<9.2	ND<17	**24**	**18**	ND<6.5	ND<54
SV-5	5.0	06/19/17	**17**	ND<0.23	**190**	ND<3.6	ND<170	**11**	ND<10	ND<4.1	**210**	ND<6.1	ND<4.5	ND<2.9	ND<24
SV-6A	5.0	06/19/17	**11**	ND<0.30	**11,000**	**12**	ND<460	**44**	169	ND<11	ND<20	ND<16	ND<12	ND<7.7	ND<63
SV-6B	15.0	06/19/17	**9.7**	ND<1.4	**18,000**	ND<23	ND<1,100	ND<31	ND<62	ND<26	ND<48	ND<38	ND<28	ND<18	ND<150
SV-7	5.0	06/19/17	**5.4**	ND<0.40	**670**	ND<6.5	ND<300	ND<8.8	ND<17.6	ND<7.3	ND<14	**20**	ND<8.0	ND<5.2	ND<42
SV-8	5.0	06/20/17	**13**	ND<0.38	**270**	ND<6.1	ND<290	ND<8.3	ND<16.6	ND<6.9	ND<13	ND<10	ND<7.5	ND<4.9	ND<40
SV-9	5.0	06/20/17	No Sample Collected - Sample Cannister Malfunction												
SV-10	5.0	06/19/17	**12**	ND<0.40	**710**	ND<6.5	ND<300	ND<8.8	ND<17.6	ND<7.3	**28**	ND<11	ND<8.0	ND<5.2	ND<42
Residential ESL			**NA**	**NA**	**300,000**	**48**	**160,000**	**560**	**52,000**	**5,400**	**240**	**340**	**4,100**	**18**	**41**
Comm/Ind ESL			**NA**	**NA**	**2,500,000**	**420**	**1,300,000**	**4,900**	**440,000**	**47,000**	**2,100**	**3,000**	**35,000**	**160**	**360**

Notes:

--- = Parameter not Sampled
NA = Not analyzed or Not established
<0.5 / ND = Not present at or above reporting detection limit
ug/m3 = micrograms per cubic meter = ppmv
ESLs = RWQCB Environmental Screening Levels - Feb. 2016 (Table SG-1: Vapor Intrusion: Human Health Risk Levels)
Bold = detected concentration
Shaded Value = concentration excedes ESL value

PCE = Tetrachloroethene
TCE = Trichloroethene
cis,1,2-DCE = cis-1,2-Dichloroethene

APPENDIX A

Fuel Release Case Closure Letter – 7/18/17

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP) FOR
HAZARDOUS MATERIALS RELEASES
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

July 18, 2017

Mr. Patrick Kong & Ms. Mona Hsieh
Green Oak Builders Inc.
888 Brannan Street, #101
San Francisco, CA 94103

Subject: Case Closure for Fuel Leak Case No. RO0003164 and GeoTracker Global ID T10000006539, Green Oak Builders, 3101 35th Avenue, Oakland, CA, 94619

Dear Mr. Kong and Ms. Hsieh:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25296.10[g]). The State Water Resources Control Board (SWRCB) adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Department of Environmental Health (ACDEH) is required to use this case closure letter for all UST leak sites.

We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the SWRCB Geotracker website (http://geotracker.waterboards.ca.gov) and the ACDEH website (http://www.acgov.org/aceh/index.htm).

Due to residual contamination at the site, a site cleanup program (SCP) case (RO0003238) was opened to address residual contamination that is not part of the closure evaluation under the SWRCB Low Threat Underground Storage Tank Case Closure Policy (LTCP). Case information is further described in Additional Information of the attached Case Closure Summary.

If you have any questions, please call Keith Nowell at (510) 567-6764. Thank you.

Sincerely,

Dilan Roe, P.E.
LOP and SCP Program Manager

Enclosures:
1. Remedial Action Completion Certification
2. Case Closure Summary

Cc w/enc.:

Laurent Meillier, San Francisco Bay Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612 (*Sent via electronic mail to laurent.meillier@waterboards.ca.gov*)

Dave Harlan, City of Oakland Planning and Building, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612 (*Sent via electronic mail to: dharlan@oaklandnet.com*)

Mark Arniola, City of Oakland Public Works, Environmental Services, 250 Frank H. Ogawa Plaza, Suite 4314 Oakland, CA 94612, (*Sent via electronic mail to: marniola@oaklandnet.com*)

Chandra Johannesson, East Bay Municipal Utility District, P.O. Box 24055, MS 702, Oakland, CA 94623, (*Sent via electronic mail to: cjohanne@ebmud.com*)

Forrest Cook, Almar Environmental, 407 Almar Avenue, Santa Cruz, CA 95060

(*Sent via electronic mail to cook.forrest@gmail.com*)

Keith Nowell, ACDEH, (*Sent via electronic mail to keith.nowell@acgov.org*)

eFile, GeoTracker

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP) FOR
HAZARDOUS MATERIALS RELEASES
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

July 18, 2017

Mr. Patrick Kong & Ms. Mona Hsieh
Green Oak Builders Inc.
888 Brannan Street, #101
San Francisco, CA 94103

Subject: Case Closure for Fuel Leak Case No. RO0003164 and GeoTracker Global ID T10000006539, Green Oak Builders, 3101 35th Avenue, Oakland, CA, 94619

Dear Mr. Kong and Ms. Hsieh:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Please be aware that claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ronald Browder

Ronald Browder
Director

APPENDIX B

VRAP Directive Letter – 6/12/17

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP) FOR
HAZARDOUS MATERIALS RELEASES
1131 HARBOR BAY
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

June 12, 2017

Ms. Mona Hsieh & Mr. Patrick Kong
Green Oak Builders
888 Brannan Street, #101
San Francisco, CA 94103
(*Sent via electronic mail to mona.hsieh@yahoo.com*)
(*Sent via electronic mail to patrickykong@gmail.com*)

Subject: Conditional Work Plan Approval; Voluntary Remedial Action Program Case No. RO0003238, Mixed Use Redevelopment Project, 3101 35th Avenue, Oakland, CA 94619

Dear Ms. Hsieh and Mr. Kong:

Alameda County Department of Environmental Health (ACDEH) has reviewed the case file, including the recently submitted document entitled *Additional Soil Gas Investigation Workplan* (Work Plan) dated June 7, 2017 and prepared by Almar Environmental (Almar) for the subject site. The Work Plan was prepared at the request of ACDEH in our letter dated June 5, 2017. The purpose of the Work Plan is to delineate areas of potential environmental concern and provide permanent sample points for temporal soil vapor monitoring.

In the Work Plan, Almar proposes to advance 10 bores, eight to 5.5 feet and two to 15.5 feet below the ground surface (bgs) for the collection of soil vapor samples. The 15.5-foot bores will be installed as dual-completion sampling points set at approximately 5 and 15 feet bgs. A grab-ground water sample will be recovered from the deeper bores if groundwater is encountered. At least one soil sample will be recovered from each bore for laboratory analysis.

Based on ACDEH staff review of the referenced document and of the case file we generally concur with the recently proposed scope of work, provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation.

TECHNICAL COMMENTS

1. **Analysis Scope** – In addition to the analysis scope outlined in the Work Plan, ACDEH requests soil, grab-groundwater, and soil vapor samples include total petroleum hydrocarbons as gasoline (TPHg) as TPHg is a potential chemical of concern at this site.
2. **Soil Screening** – Please screen soil in the field with the use of a photoionization detector (PID) or similar device to monitor for volatile organic compounds (VOCs). Please include the PID readings on the bore logs.
3. **Standard Operating Procedures** – ACDEH requests field work be performed in accordance to the Standard Operating Procedures outlined in the Almar work plans prepared for RO0003164, the fuel leak case associated with this site.

TECHNICAL REPORT REQUEST

Please submit reports to Alameda County Environmental Health (Attention: Keith Nowell), and upload technical reports to the ACDEH FTP site (Attention: Keith Nowell), and to the State Water Resources Control Board's GeoTracker website, in accordance with the following specified file naming convention and schedule:

- **July 5, 2017**– Tables and Figures provided as electronic mail attachments, Attention: Keith Nowell
- **July 7, 2017**– Meeting to discuss findings and path forward

Should you have any questions, please contact me at (510) 567- 6764 or send me an electronic mail message at keith.nowell@acgov.org.

Sincerely,

Keith Nowell

Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o=Alameda County, ou=Department of Environmental Health, email=keith.nowell@acgov.org, c=US
Date: 2017.06.12 14:31:03 -07'00'

Keith Nowell, P.G., C.HG.
Hazardous Materials Specialist

cc: Forrest Cook, Almar Environmental, 407 Almar Avenue, Santa Cruz, CA 95060
(*Sent via electronic mail to cook.forrest@gmail.com*)

Dilan Roe, ACDEH (*Sent via electronic mail to dilan.roe@acgov.org*)
Keith Nowell, ACDEH (*Sent via electronic mail to keith.nowell@acgov.org*)
Paresh Khatri, ACDEH, (*Sent via electronic mail to: paresh.khatri@acgov.org*)

Electronic File

APPENDIX C

ACPWA Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 06/12/2017 By jamesy

Permit Numbers: W2017-0482
Permits Valid from 06/15/2017 to 06/15/2017

Application Id: 1496446183310 **City of Project Site:** Oakland
Site Location: 3101 35th Ave.
Project Start Date: 06/15/2017 **Completion Date:** 06/15/2017
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org

Applicant: Almar Environmental - Forrest Cook **Phone:** 831-420-7923
407 Almar Avenue, Santa Cruz, CA 95060
Property Owner: Mona Hsieh **Phone:** --
888 BRANNAN STREET, SUITE 101, San Francisco, CA 94103
Client: ** same as Property Owner **

Total Due: $265.00
Receipt Number: WR2017-0268 **Total Amount Paid:** $265.00
Payer Name : Forrest Cook Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 10 Wells
Driller: Environmental Control Associates - Lic #: 695970 - Method: DP **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2017-0482	06/12/2017	09/13/2017	SV-1	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-10	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-2	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-3	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-4	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-5	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-6	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-7	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-8	1.50 in.	0.50 in.	0.50 ft	5.50 ft
W2017-0482	06/12/2017	09/13/2017	SV-9	1.50 in.	0.50 in.	0.50 ft	5.50 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and

all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

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

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

5. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

6. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.

7. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

8. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

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

11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

APPENDIX D

Boring Logs

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–4							CL	SILTY CLAY (CL): Dark Gray (Gley 1 4/N) to Black (10YR2/1), estimated slightly damp, estimated soft to firm, estimated low to medium plasticity.
5							CL	GRAVELLY CLAY (CL): Brown (7.5YR4/3), estimated slightly damp, estimated very stiff to hard, estimated low plasticity.
6–25								BOH = 5.5’

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-1

FIELD LOCATION OF BORING:

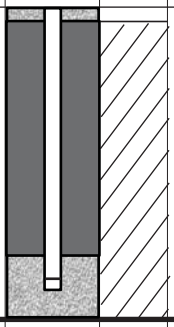
PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–4							CL	SILTY CLAY (CL): Dark Greenish Gray (Gley 1 4/1), estimated slightly damp, estimated soft, estimated low to medium plasticity.
5		SV-2d5.0						
6–25								BOH = 5.5’

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-2

FIELD LOCATION OF BORING:

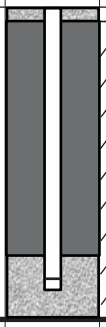
PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–4							CL	SILTY CLAY (CL): Dark Greenish Gray (Gley 1 4/1), estimated slightly damp, estimated soft, estimated low to medium plasticity.
5		SV-3d5.0						
6–25								BOH = 5.5’

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-3

FIELD LOCATION OF BORING:

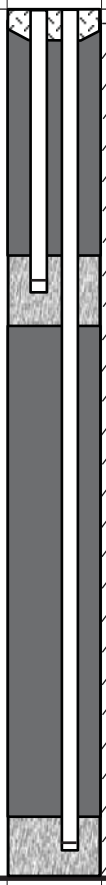
PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–5							CL	SILTY CLAY (CL): Very Dark Greenish Gray (Gley 1 3/1), estimated slightly damp, estimated firm, estimated medium plasticity.
5	■	SV-4d5.0						
6–10							CL	GRAVELLY CLAY (CL): Strong Brown (7.5YR5/6), estimated slightly damp, estimated very stiff to hard, estimated very low plasticity.
15	■	SV-4d15.0						
16–25								BOH = 15.5’

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: A = 0-5.0 ft bgs, B = 0-15.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs, 14.5 - 15.5 ft bgs
Bentonite: 1.5 - 4.5, 5.5 -14.5 ft bgs. Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-4

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

PAGE 1 OF 1

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1								2" Concrete plus baserock
2								
3							SM	FORMER TANK PIT - FILL - SAND (SM): Dark Yellowish Brown (10YR3/4), estimated slightly damp, estimated loose, sand is coarse.
4								
5	■	SV-5d5.0						
6								BOH = 5.5'
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-5

FIELD LOCATION OF BORING:

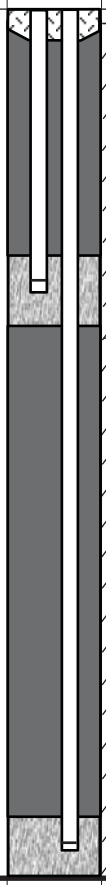
PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–5							CL	SILTY CLAY (CL): Yellowish Brown (10.5YR5/8), estimated slightly damp to damp, estimated firm, estimated medium plasticity.
5	■	SV-6d5.0						
6–15							CL	GRAVELLY CLAY (CL): Olive Gray (5Y4/2), estimated slightly damp, estimated very stiff to hard, estimated very low plasticity.
15	■	SV-6d15.0						
16–25								BOH = 15.5’

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: A = 0-5.0 ft bgs, B = 0-15.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs, 14.5 - 15.5 ft bgs
Bentonite: 1.5 - 4.5, 5.5 -14.5 ft bgs. Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-6

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1								1" Asphalt plus baserock
2								
3							CL	GRAVELLY CLAY (CL): Brown (7.5YR4/4), estimated slightly damp, estimated very stiff to hard, estimated low plasticity.
4								
5	■	SV-7d5.0						
6								BOH = 5.5'
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-7

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

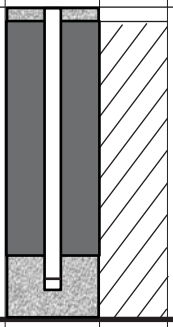
CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA

LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–5	■	SV-8d5.0					CL	1" Asphalt plus baserock GRAVELLY CLAY (CL): Dark Yellowish Brown (10YR4/6), estimated slightly damp, estimated very stiff to hard, estimated low plasticity.
6–25								BOH = 5.5'

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-8

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–4							CL	SILTY CLAY (CL): Dark Gray (Gley 1 4/N) to Black (10YR2/1), estimated slightly damp, estimated soft, estimated low to medium plasticity.
5		SV-9d5.0					CL	GRAVELLY CLAY (CL): Brown (7.5YR4/3), estimated slightly damp, estimated very stiff to hard, estimated low plasticity.
								BOH = 5.5’
6–25								

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

ALMAR environmental

3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-9

FIELD LOCATION OF BORING:

PROJECT: No. 1078N DATES DRILLED: 6/15/17

CLIENT: Green Oak Builders DRILLER: ERS (C-57 #589652)

SITE ADDRESS: 3101 35th Ave., Oakland, CA LOGGED BY: Forrest Cook PG#8201

DRILLING METHOD AND EQUIPMENT: Geoprobe w/macro core sampler

WATER LEVEL		TIME	
1st Encountered	NA	Start	
Static	NA	Finish	

Depth (Feet)	Sample	Sample ID	Blow Count	PID (ppm)	Well Const.	Lithology	USCS	SOIL DESCRIPTION
1–4							CL	SILTY CLAY (CL): Dark Gray (Gley 1 4/N), estimated slightly damp, estimated soft, estimated low to medium plasticity.
5		SV-10d5.0					CL	GRAVELLY CLAY (CL): Brown (7.5YR4/3), estimated slightly damp, estimated very stiff to hard, estimated low plasticity.
								BOH = 5.5’
6–25								

WELL / BORING CONSTRUCTION DETAILS: 1/4-in. diameter Teflon tubing: 0-5.0 ft bgs
#2/12 Sand: 4.5 - 5.5 ft bgs
Bentonite: 1.5 - 4.5 Portland Neat Cement (Type I/II): 0.0 -1.5 ft bgs

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3101 35th AVE.
OAKLAND, CALIFORNIA

BORING LOG

BORING

SV-10

APPENDIX E

Soil Gas Purge Data Sheets

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-1

Project Name	Green Oak Bldg	Project No.	1074 N	Date	6-20-17
Project Address, City, County	3101 35th Ave, Oakland, CA				

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)			
Water Quality Meter (Model/ID)	—	Decontamination Method			
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump	Other	
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other		

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	—
Depth to Water (DTW) (feet)	—
Total Well Depth (WD) (feet)	5.0
Water Column (WC) (feet)	—
Free Product Thickness (feet)	—

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	8:54	8:57	8:58	8:59	9:00				
mL Purged	0	150	300	450	600				
He % in shroud	25.0	27.1	25.8	24.5	23.1				
He % out	-00.0	-00.0	-00.0	-00.0	-00.0				
Sample Time	9:00	9:01	9:03	9:04	9:05	9:08			
He % in shroud	23.1	22.7	21.0	19.9	17.9				
Hg "	-30	-25	-20	-15	-10	-5			
					Sample Time		9:08		
Other					Canister #		341		
Other					Manifold #		A00314		

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cade	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-2

Project Name 3101 35th	Project No. 1078N	Date 6-20-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID) —	Interface probe (Model/ID) —
Water Quality Meter (Model/ID) —	Decontamination Method —

Purging Method(s): X Summa ____ Vacuum Truck ____ Submersible Pump ____ Other

Sampling Method(s): X Summa Canister ____ Disposal Bailer ____ Other

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle) 2" 6" 8"	Casing Diameter (Circle) 3/16"
	Casing Multiplier (CM) (mL/foot) 5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet) —	Casing Volume (CV)
Depth to Water (DTW) (feet) —	____ WD x CM ____ ____ CV (mL) x 3.0 CV (mL) ____
Total Well Depth (WD) (feet) 5.-	
Water Column (WC) (feet) —	pump = 150 mL/min
Free Product Thickness (feet) —	Free Product Purged (gal)

PURGING DATA

Time (24 hr)	8:30	8:31	8:32	8:33	8:34				
mL Purged	0	150	300	450	600				
He % in shroud	27.3	22.9	27.7	22.1	23.4				
He % out	00.1	00.2	00.2	00.2	00.2				
Sample Time	8:34	8:36		8:39	8:40	8:43			
He % in shroud	23.4	27.2		27.5	19.6				
Hg "	-30	-25	-20	-15	-10	-5			
						Sample time 8:43			
Other	27					Canister # 69			
Other	24					manifold # A00150			

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-3

Project Name	3101 35th	Project No.	1078N	Date	6-20-17
Project Address, City, County	3101 35th Ave Oakland, CA				

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)	—
Water Quality Meter (Model/ID)	—	Decontamination Method	—
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump / Other
Sampling Method(s)	1 Summa Canister	Disposal Bailer	Other

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	2" 6" 8"	Casing Diameter (Circle)	3/16"
		Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	—
Depth to Water (DTW) (feet)	-
Total Well Depth (WD) (feet)	5.0
Water Column (WC) (feet)	-
Free Product Thickness (feet)	-

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	8:01	8:02	8:03	8:04	8:25				
mL Purged	0	150	300	450	600				
He % in shroud	24.4	23.3	22.9	21.5	18.5				
He % out	00.1	-00.8	-01.1	-1.2	-1.2				
Sample Time	8:05	8:07	8:09	8:10	8:11	8:13			
He % in shroud	20.9	22.4	24.9	21.1	20.0	19.5			
Hg "	-30	-25	-20	-15	-10	-5			
					Sample Time	8:13			
Other Start	-30				Canister #	385			
Other					Manifold #				

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s):	F. Cook	Subcontractor:
Signature		Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-4A

Project Name 3101 35th	Project No. 1078.N	Date 6-19-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—			Interface probe (Model/ID)	—		
Water Quality Meter (Model/ID)	—			Decontamination Method	—		
Purging Method(s)	/ Summa		Vacuum Truck		Submersible Pump		Other
Sampling Method(s)	X Summa Canister		Disposal Bailer		Other		

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	(3/16")
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	—
Depth to Water (DTW) (feet)	—
Total Well Depth (WD) (feet)	5.7
Water Column (WC) (feet)	—
Free Product Thickness (feet)	—

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	12:40	13:41	13:42	13:43	13:44				
mL Purged	0	150	300	450	600				
He % in shroud	26.1	25.4	21.6	20.5	29.5				
He % out	-00.6	-00.6	-00.6	-00.6	-00.6				
Sample Time	13:44	13:46	13:48	13:50	13:52				
He % in shroud	24.7	24.1	29.3	26.3					
Hg "	-30	-25	-20	-15	-10	(-8)	-end @	14:01	
						Sample Time		14:38	
Other	-17					canister #		173	
Other	-15					manifold #		A0>0254	

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-43

Project Name 3101 35th	Project No. 1078N	Date 6-15-17
Project Address, City, County 3101 35th Ave, [illegible] Oakland CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)	—		
Water Quality Meter (Model/ID)	—	Decontamination Method	—		
Purging Method(s)	Y Summa	____ Vacuum Truck	____ Submersible Pump	____ Other	
Sampling Method(s)	/ Summa Canister	____ Disposal Bailer	____ Other		

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	(3/16")
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	—
Depth to Water (DTW) (feet)	—
Total Well Depth (WD) (feet)	15.0
Water Column (WC) (feet)	—
Free Product Thickness (feet)	—

PURGING CALCULATORS

Casing Volume (CV)

____ WD x CM ____ ____ CV (mL) x 3.0 CV (mL) ____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	14:16	14:17	14:18	14:19	14:20				
mL Purged	0	150	300	450	600				
He % in shroud	31.2	29.1	27.9	24.2	22.2				
He % out	-00.3	-00.4	-00.4	-00.4	-00.4				
Sample Time	14:20	14:23	14:31						
He % in shroud	22.2	24.9		→ Stopped @ 14:41					
Hg "	-30	-25	-20	~~-19~~	~~-10~~	~~-8~~			
				Sample time		14:41			
Other purge	-15			Canister #		458			
Other	-13			Mfd. Std #		A225/16			

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-5

Project Name 3101 35th	Project No. 1078N	Date 6-15-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)	—		
Water Quality Meter (Model/ID)	—	Decontamination Method	—		
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump	Other	
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other		

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS	PURGING CALCULATORS
Depth to Free Product (feet)	Casing Volume (CV)
Depth to Water (DTW) (feet)	_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____
Total Well Depth (WD) (feet) 5.0'	
Water Column (WC) (feet)	purge = 150 mL/min
Free Product Thickness (feet)	Free Product Purged (gal)

PURGING DATA

Time (24 hr)	13:07	13:09	13:09	13:10	13:11				
mL Purged	0	150	300	450	600				
He % in shroud	34.0	26.5	23.4	21.9	25.0				
He % out	00.8	-00.7	-00.7	-00.6	-00.6				
Sample Time	13:12	13:13	13:16	13:20	13:24	13:27			
He % in shroud	27.5	25.8	22.1	19.8	16.6				
Hg "	-30	-25	-20	-15	-10	-5			
					Sample time =		13:27		
Other	-20				canister #		75		
Other	-14				manifold #		A0060		

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-6A

Project Name 3101 35th	Project No. 1078N	Date 6-19-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)	—	
Water Quality Meter (Model/ID)	—	Decontamination Method	—	
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump	Other
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other	

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	—
Depth to Water (DTW) (feet)	—
Total Well Depth (WD) (feet)	5'
Water Column (WC) (feet)	—
Free Product Thickness (feet)	—

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	11:41	11:42	11:43	11:44	11:45				
mL Purged	0	150	300	450	600				
He % in shroud	26.8	21.7	21.6	27.6	24.9				
He % out	-00.7	-00.8	-00.8	-00.8	-00.8				
Sample Time	11:45	11:48	11:52	11:57	12:15				
He % in shroud	24.9	27.6	24.2	21.7		→ stopped			
Hg "	-30	-25	-20	-15	-10	-0			
					sample time = 12:15				
Other	-26				canister # 67				
Other	-24				modified # A00309				

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-6B

Project Name 3101 35th	Project No. 1078N	Date 6-19-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	–	Interface probe (Model/ID)	–	
Water Quality Meter (Model/ID)	–	Decontamination Method	–	
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump	Other
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other	

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	(3/16")
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	–
Depth to Water (DTW) (feet)	–
Total Well Depth (WD) (feet)	15'
Water Column (WC) (feet)	–
Free Product Thickness (feet)	–

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	12:23	12:24	12:25	12:26	12:27				
mL Purged	0	150	300	450	600				
He % in shroud	29.4	28.7	27.8	26.2	23.1				
He % out	–	-00.7	-00.7	-00.7	-00.7				
Sample Time	12:28	12:35							
He % in shroud	23.1	–		STOPPED @ -10		due to			
Hg "	-15	-10		slow sampling.					
						Sample time = 12:35			
Other	.23					canister = 398			
Other						manifold = A00262			

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-7

Project Name 3101 35th	Project No. 1078N	Date 6-15-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	–			Interface probe (Model/ID)	~		
Water Quality Meter (Model/ID)	–			Decontamination Method	–		
Purging Method(s)	X Summa		Vacuum Truck		Submersible Pump		Other
Sampling Method(s)	X Summa Canister		Disposal Bailer		Other		

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	–
Depth to Water (DTW) (feet)	–
Total Well Depth (WD) (feet)	5.0
Water Column (WC) (feet)	–
Free Product Thickness (feet)	–

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	11:03	11:04	11:05	11:06	11:07				
mL Purged	0	150	300	450	600				
He % in shroud	25.2	23.4	22.7	20.6	20.4				
He % out	1.6	3.8	4.3	4.9	3.9				
Sample Time	11:08	11:10	11:13	→ stuck @ -20"					
He % in shroud	23.9	19.0	25.0		stopped at 12:00				
Hg "	-30	-25	-20	~~Hg~~	~~Hg~~	~~Hg~~			
					SAMPLE	Time = 12:00			
~~Other~~ purge start	-28"				canister = 57				
Other end	-26"				manifold = A00128				

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-8

Project Name 3101 35th	Project No. 1074N	Date 6-20-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	–			Interface probe (Model/ID)	–		
Water Quality Meter (Model/ID)	–			Decontamination Method	–		
Purging Method(s)	X	Summa		Vacuum Truck		Submersible Pump	Other
Sampling Method(s)	X	Summa Canister		Disposal Bailer		Other	

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS

Depth to Free Product (feet)	–
Depth to Water (DTW) (feet)	–
Total Well Depth (WD) (feet)	5.0
Water Column (WC) (feet)	–
Free Product Thickness (feet)	–

PURGING CALCULATORS

Casing Volume (CV)

_____ WD x CM _____ _____ CV (mL) x 3.0 CV (mL) _____

Purge = 150 mL/min

Free Product Purged (gal)

PURGING DATA

Time (24 hr)	9:47	9:48	9:49	9:50	9:51				
mL Purged	0	150	300	450	600				
He % in shroud	30.4	28.4	30.7	22.2	27.1				
He % out	-00.3	-00.2	-00.0	00.1	00.2				
Sample Time	9:55	9:53	9:57						
He % in shroud	27.1	21.5	31.1						
Hg "	-30	-25	-20	→ stop @ 10:20					
					Time = 32				
Other	-5				sample AM158				
Other					meter 140				

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-9

Project Name 3101 35th	Project No. 1078N	Date 6-20-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID) —	Interface probe (Model/ID) —			
Water Quality Meter (Model/ID) —	Decontamination Method			
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump	Other
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other	

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2")	6"	8"	Casing Diameter (Circle)	3/16"
				Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS		PURGING CALCULATORS	
Depth to Free Product (feet)	—	Casing Volume (CV)	
Depth to Water (DTW) (feet)	—	_____ WD x CM _____	_____ CV (mL) x 3.0 CV (mL) _____
Total Well Depth (WD) (feet)	5.0	Purge = 150 mL/min	
Water Column (WC) (feet)	—		
Free Product Thickness (feet)	—	Free Product Purged (gal)	

PURGING DATA

Time (24 hr)	9:22	9:23	9:24	9:25	9:26				
mL Purged	0	150	300	450	600				
He % in shroud	23.1	23.2	23.4	22.5	21.3				
He % out	-01.2	-00.7	-01.2	-01.4	-01.5				
Sample Time	9:26	Canister empty No Sample							
He % in shroud	21.3								
Hg "	(0")								
					Time	9:26			
Other					canister	304			
Other					Manifold	A00226			

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cook	Subcontractor:
Signature	Date:

ALMAR environmental

Soil Vapor Well Purging and Sampling Form

Well No. SV-10

Project Name 3101 35th Ave	Project No. 1078N	Date 6-15-17
Project Address, City, County 3101 35th Ave, Oakland, CA		

PURGING AND SAMPLING INSTRUMENTATION AND METHOD

Water Level Meter (Model/ID)	—	Interface probe (Model/ID)	—
Water Quality Meter (Model/ID)	—	Decontamination Method	—
Purging Method(s)	X Summa	Vacuum Truck	Submersible Pump / Other
Sampling Method(s)	X Summa Canister	Disposal Bailer	Other

BOREHOLE AND WELL CASING VOLUME INFORMATION

Borehole Diameter (Circle)	(2") 6" 8"	Casing Diameter (Circle)	3/16"
		Casing Multiplier (CM) (mL/foot)	5.42

MONITORING MEASUREMENTS	PURGING CALCULATORS
Depth to Free Product (feet)	Casing Volume (CV)
Depth to Water (DTW) (feet)	____ WD x CM ____ ____ CV (mL) x 3.0 CV (mL) ____
Total Well Depth (WD) (feet) 5.0	Purge = 150 mL/min
Water Column (WC) (feet)	
Free Product Thickness (feet)	Free Product Purged (gal)

PURGING DATA

Time (24 hr)	10:27	10:33	10:34	10:35	10:36	10:37			
mL Purged	0	150	300	450	600	750			
He % in shroud	25.8	25.3	24.1	22.8	21.4	20.4			
He % out	00.0	0.00	0.00	00.0	00.0	20.4			
Sample Time	10:27	10:37	10:48	→	stopped @ -16 @ 12:05				
He % in shroud	20.7	26.3							
Hg "	-30	-25	-20	[illegible]	[illegible]	[illegible]			
					Sample Time = 12:05				
Other purge start	-29"				canister # 245				
Other end	-28"				manifold # A00317				

SAMPLING DATA

Sample ID	Time	Quantity	Volume	Type	Filtered	Preserved	Analysis

FIELD PERSONNEL

Field Technician Representative(s): F. Cecil	Subcontractor:
Signature	Date:

APPENDIX F

Laboratory Data Sheets


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 290020
ANALYTICAL REPORT

Almar Environmental	Project : 1078N Location : 3101 35th Level : II

Sample ID	Lab ID
SV-4B	290020-001
SV-4A	290020-002
SV-5	290020-003
SV-6B	290020-004
SV-6A	290020-005
SV-7	290020-006
SV-10	290020-007
SV-8	290020-008
SV-9	290020-009
SV-1	290020-010
SV-3	290020-011
SV-2	290020-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 07/05/2017

Will Rice
Project Manager
will.rice@ctberk.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**290020**
Client:	**Almar Environmental**
Project:	**1078N**
Location:	**3101 35th**
Request Date:	**06/21/17**
Samples Received:	**06/20/17**

This data package contains sample and QC results for eleven air samples, requested for the above referenced project on 06/21/17. The samples were received cold and intact.

Volatile Organics in Air by MS (EPA TO-15):

High responses were observed for toluene and cis-1,2-dichloroethene in the CCV analyzed 06/26/17 08:27; affected data was qualified with "b". High responses were observed for 1,2-dichloroethane and tetrahydrofuran in the CCV analyzed 06/23/17 06:45; affected data was qualified with "b". High responses were observed for toluene, cis-1,2-dichloroethene, and hexachlorobutadiene in the CCV analyzed 06/27/17 08:23; affected data was qualified with "b". High recoveries were observed for 1,2-dichloroethane and tetrahydrofuran in the BS/BSD for batch 249045; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. High recoveries were observed for toluene and cis-1,2-dichloroethene in the BS/BSD for batch 249090; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. High recoveries were observed for toluene, cis-1,2-dichloroethene, and hexachlorobutadiene in the BS/BSD for batch 249136; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. SV-4A (lab # 290020-002) and SV-2 (lab # 290020-012) were diluted due to high hydrocarbons. No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946-90 and EPA TO-3):

No analytical problems were encountered.

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

AIR TESTING CHAIN OF CUSTODY & PURCHASE ORDER

Page 1 of 1

Chain of Custody # :

C&T LOGIN # 290020

Project No: 1078N
Project Name: 3101 35th
EDD Format: X Rpt Level: II III IV
Turnaround Time: ☐ RUSH (X) Standard

Sampler: F. Cook
Report To: F. Cook
Company: Almar
Telephone: 831-420-7923
Email: cook.forest@gmail.com

Lab No.	Sample ID.	Sampling Information: Date Collected	Time Collected	Canister ID (Bar Code #)	Flow Controller ID	Sample Volume (Gauge Reading)	TESTING REQUESTED: TPH9 + VOCs by TO-15	Fixed Gases: H_2 + O_2
1	SV-4B	6-15-17	14:41	438	316	-20	X	X
2	SV-4A		14:08	173	259	-5	X	X
3	SV-5		13:27	75	260	-5	X	X
4	SV-6B		12:55	398	262	-10	X	X
5	SV-6A		12:15	67	309	-10	X	X
6	SV-7		12:00	57	128	-20	X	X
7	SV-10	↓	12:05	245	317	-20	X	X
8	SV-8	6-20-17	10:00	140	158	-20	X	X
9	SV-9		—	304	267	0	NO SAMPLE - CANNISTER EMPTY	
10	SV-1		9:08	341	314	-5	X	X
11	SV-3		8:13	385	—	-5	X	X
12	SV-2	↓	8:43	69	150	-5	X	X

Notes:

RELINQUISHED BY: [signature] 6/20/17 11:30 DATE/TIME

RECEIVED BY: Pat Dooley 6/20/17 11:30 DATE/TIME

[signature] DATE/TIME

Gil Ay 6/20/17 1824 DATE/TIME

DATE/TIME

DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 290020 Date Received 6/20/17 Number of coolers 6
Client AMAR Project 3101 3544

Date Opened 6/21/17 By (print) EVA (sign) Eva
Date Logged in [illegible] By (print) [illegible] (sign) [illegible]
Date Labeled [illegible] By (print) [illegible] (sign) [illegible]

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐YES (circle) on cooler on samples ☐NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

   ☐Bubble Wrap ☐Foam blocks ☐Bags ☐None
   ☐Cloth material ☑Cardboard ☐Styrofoam ☐Paper towels
7. Temperature documentation: * Notify PM if temperature exceeds 6°C

   Type of ice used: ☐ Wet ☐Blue/Gel ☑None Temp(°C)

   ☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

   ☐ Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Detections Summary for 290020

Results for any subcontracted analyses are not included in this summary.

Client : Almar Environmental
Project : 1078N
Location : 3101 35th

Client Sample ID : SV-4B Laboratory Sample ID : 290020-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	15		10		ppbv	As Recd	5.110	EPA TO-15	METHOD
Carbon Disulfide	41		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
n-Hexane	44		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
1,1-Dichloroethane	6.3		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
cis-1,2-Dichloroethene	4.4		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
2-Butanone	20		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
Tetrahydrofuran	3.8		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
n-Heptane	3.3		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
Trichloroethene	4.5		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
Ethylbenzene	5.1		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
m,p-Xylenes	10		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
o-Xylene	6.5		2.6		ppbv	As Recd	5.110	EPA TO-15	METHOD
Oxygen	65,000		5,100		ppmv	As Recd	5.110	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	2,400		260	38	ppbv	As Recd	5.110	EPA TO-3	METHOD

Client Sample ID : SV-4A Laboratory Sample ID : 290020-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Carbon Disulfide	46		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
n-Hexane	69		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
Chloroform	2.6		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
Ethylbenzene	9.3		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
m,p-Xylenes	25		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
o-Xylene	9.3		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
4-Ethyltoluene	3.7		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
1,2,4-Trimethylbenzene	5.7		2.4		ppbv	As Recd	4.820	EPA TO-15	METHOD
Oxygen	37,000		2,400		ppmv	As Recd	2.410	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	4,100		120	18	ppbv	As Recd	2.410	EPA TO-3	METHOD

Client Sample ID : SV-5 Laboratory Sample ID : 290020-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	7.2		4.6		ppbv	As Recd	2.280	EPA TO-15	METHOD
Tetrachloroethene	31		1.1		ppbv	As Recd	2.280	EPA TO-15	METHOD
Ethylbenzene	2.6		1.1		ppbv	As Recd	2.280	EPA TO-15	METHOD
Oxygen	170,000		2,300		ppmv	As Recd	2.280	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	46	J	110	17	ppbv	As Recd	2.280	EPA TO-3	METHOD

Curtis & Tompkins, Ltd.

Client Sample ID : SV-6B Laboratory Sample ID : 290020-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	80		28		ppbv	As Recd	14.15	EPA TO-15	METHOD
n-Hexane	8.0		7.1		ppbv	As Recd	14.15	EPA TO-15	METHOD
Oxygen	97,000		14,000		ppmv	As Recd	14.15	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	4,400		710	110	ppbv	As Recd	14.15	EPA TO-3	METHOD

Client Sample ID : SV-6A Laboratory Sample ID : 290020-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Carbon Disulfide	72		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
n-Hexane	7.5		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
Tetrahydrofuran	7.2		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
Chloroform	3.7		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
Benzene	3.7		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
Ethylbenzene	10		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
m,p-Xylenes	28		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
o-Xylene	11		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
4-Ethyltoluene	3.9		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
1,2,4-Trimethylbenzene	8.4		3.0		ppbv	As Recd	6.040	EPA TO-15	METHOD
Oxygen	110,000		3,000		ppmv	As Recd	3.020	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	2,700		150	22	ppbv	As Recd	3.020	EPA TO-3	METHOD

Client Sample ID : SV-7 Laboratory Sample ID : 290020-006

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	13		8.1		ppbv	As Recd	4.040	EPA TO-15	METHOD
Carbon Disulfide	130		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Tetrahydrofuran	5.9		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Trichloroethene	3.7		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Oxygen	54,000		4,000		ppmv	As Recd	4.040	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	160	J	200	30	ppbv	As Recd	4.040	EPA TO-3	METHOD

Client Sample ID : SV-10 Laboratory Sample ID : 290020-007

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	10		8.1		ppbv	As Recd	4.040	EPA TO-15	METHOD
Carbon Disulfide	3.4		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Tetrahydrofuran	3.3		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Chloroform	3.1		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Tetrachloroethene	4.1		2.0		ppbv	As Recd	4.040	EPA TO-15	METHOD
Oxygen	120,000		4,000		ppmv	As Recd	4.040	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	170	J	200	30	ppbv	As Recd	4.040	EPA TO-3	METHOD

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Client Sample ID : SV-8 Laboratory Sample ID : 290020-008

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	9.1		7.6		ppbv	As Recd	3.800	EPA TO-15	METHOD
Carbon Disulfide	19		1.9		ppbv	As Recd	3.800	EPA TO-15	METHOD
Chloroform	5.7		1.9		ppbv	As Recd	3.800	EPA TO-15	METHOD
Oxygen	130,000		3,800		ppmv	As Recd	3.800	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	66	J	190	28	ppbv	As Recd	3.800	EPA TO-3	METHOD

Client Sample ID : SV-1 Laboratory Sample ID : 290020-010

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	7.4		4.5		ppbv	As Recd	2.250	EPA TO-15	METHOD
Carbon Disulfide	1.2		1.1		ppbv	As Recd	2.250	EPA TO-15	METHOD
2-Butanone	4.6		3.8		ppbv	As Recd	2.250	EPA TO-15	METHOD
Chloroform	1.9		1.1		ppbv	As Recd	2.250	EPA TO-15	METHOD
Oxygen	72,000		2,300		ppmv	As Recd	2.250	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	69	J	110	17	ppbv	As Recd	2.250	EPA TO-3	METHOD

Client Sample ID : SV-3 Laboratory Sample ID : 290020-011

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Carbon Disulfide	94		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
n-Hexane	8.6		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
Chloroform	5.1		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
Benzene	9.4		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
n-Heptane	1.5		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
Ethylbenzene	6.5		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
m,p-Xylenes	2.7		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
o-Xylene	1.9		1.1		ppbv	As Recd	2.220	EPA TO-15	METHOD
Oxygen	110,000		2,200		ppmv	As Recd	2.220	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	1,600		110	17	ppbv	As Recd	2.220	EPA TO-3	METHOD

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Client Sample ID : SV-2 Laboratory Sample ID : 290020-012

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Acetone	13		12		ppbv	As Recd	5.850	EPA TO-15	METHOD
Carbon Disulfide	22		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
n-Hexane	49		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
2-Butanone	6.3		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
Chloroform	3.6		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
Benzene	5.4		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
n-Heptane	18		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
Trichloroethene	3.0		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
Ethylbenzene	12		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
m,p-Xylenes	10		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
o-Xylene	3.7		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
1,2,4-Trimethylbenzene	3.7		2.9		ppbv	As Recd	5.850	EPA TO-15	METHOD
Oxygen	11,000		2,000		ppmv	As Recd	1.950	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	1,300		98	14	ppbv	As Recd	1.950	EPA TO-3	METHOD

J = Estimated value

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Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-4B	Units (M):	ug/m3
Lab ID:	290020-001	Diln Fac:	5.110
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17

Analyte	Result (V)	RL	Result (M)	RL	Batch#	Analyzed
Freon 12	ND	2.6	ND	13	249045	06/24/17
Freon 114	ND	2.6	ND	18	249045	06/24/17
Chloromethane	ND	2.6	ND	5.3	249045	06/24/17
Vinyl Chloride	ND	2.6	ND	6.5	249045	06/24/17
Bromomethane	ND	2.6	ND	9.9	249045	06/24/17
Chloroethane	ND	2.6	ND	6.7	249045	06/24/17
Trichlorofluoromethane	ND	2.6	ND	14	249045	06/24/17
Acrolein	ND	10	ND	23	249045	06/24/17
1,1-Dichloroethene	ND	2.6	ND	10	249045	06/24/17
Freon 113	ND	2.6	ND	20	249045	06/24/17
Acetone	15	10	35	24	249045	06/24/17
Carbon Disulfide	41	2.6	130	8.0	249045	06/24/17
Isopropanol	ND	10	ND	25	249045	06/24/17
Methylene Chloride	ND	2.6	ND	8.9	249045	06/24/17
trans-1,2-Dichloroethene	ND	2.6	ND	10	249045	06/24/17
MTBE	ND	2.6	ND	9.2	249045	06/24/17
n-Hexane	44	2.6	150	9.0	249045	06/24/17
1,1-Dichloroethane	6.3	2.6	26	10	249045	06/24/17
Vinyl Acetate	ND	2.6	ND	9.0	249045	06/24/17
cis-1,2-Dichloroethene	4.4	2.6	18	10	249045	06/24/17
2-Butanone	20	2.6	59	7.5	249045	06/24/17
Ethyl Acetate	ND	2.6	ND	9.2	249045	06/24/17
Tetrahydrofuran	3.8	2.6	11	7.5	249090	06/26/17
Chloroform	ND	2.6	ND	12	249045	06/24/17
1,1,1-Trichloroethane	ND	2.6	ND	14	249045	06/24/17
Carbon Tetrachloride	ND	2.6	ND	16	249045	06/24/17
Benzene	ND	2.6	ND	8.2	249045	06/24/17
1,2-Dichloroethane	ND	2.6	ND	10	249045	06/24/17
n-Heptane	3.3	2.6	14	10	249045	06/24/17
Trichloroethene	4.5	2.6	24	14	249045	06/24/17
1,2-Dichloropropane	ND	2.6	ND	12	249045	06/24/17
Bromodichloromethane	ND	2.6	ND	17	249045	06/24/17
cis-1,3-Dichloropropene	ND	2.6	ND	12	249045	06/24/17
4-Methyl-2-Pentanone	ND	2.6	ND	10	249045	06/24/17
Toluene	ND	100	ND	390	249045	06/24/17
trans-1,3-Dichloropropene	ND	2.6	ND	12	249045	06/24/17

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-4B	Units (M):	ug/m3
Lab ID:	290020-001	Diln Fac:	5.110
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17

Analyte	Result (V)	RL	Result (M)	RL	Batch#	Analyzed
1,1,2-Trichloroethane	ND	2.6	ND	14	249045	06/24/17
Tetrachloroethene	ND	2.6	ND	17	249045	06/24/17
2-Hexanone	ND	2.6	ND	10	249045	06/24/17
Dibromochloromethane	ND	2.6	ND	22	249045	06/24/17
1,2-Dibromoethane	ND	2.6	ND	20	249045	06/24/17
Chlorobenzene	ND	2.6	ND	12	249045	06/24/17
Ethylbenzene	5.1	2.6	22	11	249045	06/24/17
m,p-Xylenes	10	2.6	43	11	249045	06/24/17
o-Xylene	6.5	2.6	28	11	249045	06/24/17
Styrene	ND	2.6	ND	11	249045	06/24/17
Bromoform	ND	2.6	ND	26	249045	06/24/17
1,1,2,2-Tetrachloroethane	ND	2.6	ND	18	249045	06/24/17
4-Ethyltoluene	ND	2.6	ND	13	249045	06/24/17
1,3,5-Trimethylbenzene	ND	2.6	ND	13	249045	06/24/17
1,2,4-Trimethylbenzene	ND	2.6	ND	13	249045	06/24/17
1,3-Dichlorobenzene	ND	2.6	ND	15	249045	06/24/17
1,4-Dichlorobenzene	ND	2.6	ND	15	249045	06/24/17
Benzyl chloride	ND	2.6	ND	13	249045	06/24/17
1,2-Dichlorobenzene	ND	2.6	ND	15	249045	06/24/17
1,2,4-Trichlorobenzene	ND	2.6	ND	19	249045	06/24/17
Hexachlorobutadiene	ND	2.6	ND	27	249045	06/24/17
Naphthalene	ND	10	ND	54	249045	06/24/17

Surrogate	%REC	Limits	Batch#	Analyzed
Bromofluorobenzene	116	80-120	249045	06/24/17

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-4A	Diln Fac:	4.820
Lab ID:	290020-002	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	2.4	ND	12
Freon 114	ND	2.4	ND	17
Chloromethane	ND	2.4	ND	5.0
Vinyl Chloride	ND	2.4	ND	6.2
Bromomethane	ND	2.4	ND	9.4
Chloroethane	ND	2.4	ND	6.4
Trichlorofluoromethane	ND	2.4	ND	14
Acrolein	ND	9.6	ND	22
1,1-Dichloroethene	ND	8.0	ND	32
Freon 113	ND	2.4	ND	18
Acetone	ND	9.6	ND	23
Carbon Disulfide	46	2.4	140	7.5
Isopropanol	ND	9.6	ND	24
Methylene Chloride	ND	2.4	ND	8.4
trans-1,2-Dichloroethene	ND	2.4	ND	9.6
MTBE	ND	2.4	ND	8.7
n-Hexane	69	2.4	240	8.5
1,1-Dichloroethane	ND	2.4	ND	9.8
Vinyl Acetate	ND	2.4	ND	8.5
cis-1,2-Dichloroethene	ND	2.4	ND	9.6
2-Butanone	ND	8.0	ND	24
Ethyl Acetate	ND	2.4	ND	8.7
Tetrahydrofuran	ND	2.4	ND	7.1
Chloroform	2.6	2.4	13	12
1,1,1-Trichloroethane	ND	2.4	ND	13
Carbon Tetrachloride	ND	2.4	ND	15
Benzene	ND	2.4	ND	7.7
1,2-Dichloroethane	ND	2.4	ND	9.8
n-Heptane	ND	2.4	ND	9.9
Trichloroethene	ND	2.4	ND	13
1,2-Dichloropropane	ND	2.4	ND	11
Bromodichloromethane	ND	2.4	ND	16
cis-1,3-Dichloropropene	ND	2.4	ND	11
4-Methyl-2-Pentanone	ND	2.4	ND	9.9
Toluene	ND	96	ND	360

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-4A	Diln Fac:	4.820
Lab ID:	290020-002	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	2.4	ND	11
1,1,2-Trichloroethane	ND	2.4	ND	13
Tetrachloroethene	ND	2.4	ND	16
2-Hexanone	ND	2.4	ND	9.9
Dibromochloromethane	ND	2.4	ND	21
1,2-Dibromoethane	ND	2.4	ND	19
Chlorobenzene	ND	2.4	ND	11
Ethylbenzene	9.3	2.4	40	10
m,p-Xylenes	25	2.4	110	10
o-Xylene	9.3	2.4	41	10
Styrene	ND	2.4	ND	10
Bromoform	ND	2.4	ND	25
1,1,2,2-Tetrachloroethane	ND	2.4	ND	17
4-Ethyltoluene	3.7	2.4	18	12
1,3,5-Trimethylbenzene	ND	2.4	ND	12
1,2,4-Trimethylbenzene	5.7	2.4	28	12
1,3-Dichlorobenzene	ND	2.4	ND	14
1,4-Dichlorobenzene	ND	2.4	ND	14
Benzyl chloride	ND	2.4	ND	12
1,2-Dichlorobenzene	ND	2.4	ND	14
1,2,4-Trichlorobenzene	ND	2.4	ND	18
Hexachlorobutadiene	ND	2.4	ND	26
Naphthalene	ND	9.6	ND	51

Surrogate	%REC	Limits
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-5	Diln Fac:	2.280
Lab ID:	290020-003	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	1.1	ND	5.6
Freon 114	ND	1.1	ND	8.0
Chloromethane	ND	1.1	ND	2.4
Vinyl Chloride	ND	1.1	ND	2.9
Bromomethane	ND	1.1	ND	4.4
Chloroethane	ND	1.1	ND	3.0
Trichlorofluoromethane	ND	1.1	ND	6.4
Acrolein	ND	4.6	ND	10
1,1-Dichloroethene	ND	3.8	ND	15
Freon 113	ND	1.1	ND	8.7
Acetone	7.2	4.6	17	11
Carbon Disulfide	ND	1.1	ND	3.5
Isopropanol	ND	4.6	ND	11
Methylene Chloride	ND	1.1	ND	4.0
trans-1,2-Dichloroethene	ND	1.1	ND	4.5
MTBE	ND	1.1	ND	4.1
n-Hexane	ND	1.1	ND	4.0
1,1-Dichloroethane	ND	1.1	ND	4.6
Vinyl Acetate	ND	1.1	ND	4.0
cis-1,2-Dichloroethene	ND	1.1	ND	4.5
2-Butanone	ND	3.8	ND	11
Ethyl Acetate	ND	1.1	ND	4.1
Tetrahydrofuran	ND	1.1	ND	3.4
Chloroform	ND	1.1	ND	5.6
1,1,1-Trichloroethane	ND	1.1	ND	6.2
Carbon Tetrachloride	ND	1.1	ND	7.2
Benzene	ND	1.1	ND	3.6
1,2-Dichloroethane	ND	1.1	ND	4.6
n-Heptane	ND	1.1	ND	4.7
Trichloroethene	ND	1.1	ND	6.1
1,2-Dichloropropane	ND	1.1	ND	5.3
Bromodichloromethane	ND	1.1	ND	7.6
cis-1,3-Dichloropropene	ND	1.1	ND	5.2
4-Methyl-2-Pentanone	ND	1.1	ND	4.7
Toluene	ND	46	ND	170

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-5	Diln Fac:	2.280
Lab ID:	290020-003	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	1.1	ND	5.2
1,1,2-Trichloroethane	ND	1.1	ND	6.2
Tetrachloroethene	31	1.1	210	7.7
2-Hexanone	ND	1.1	ND	4.7
Dibromochloromethane	ND	1.1	ND	9.7
1,2-Dibromoethane	ND	1.1	ND	8.8
Chlorobenzene	ND	1.1	ND	5.2
Ethylbenzene	2.6	1.1	11	5.0
m,p-Xylenes	ND	1.1	ND	5.0
o-Xylene	ND	1.1	ND	5.0
Styrene	ND	1.1	ND	4.9
Bromoform	ND	1.1	ND	12
1,1,2,2-Tetrachloroethane	ND	1.1	ND	7.8
4-Ethyltoluene	ND	1.1	ND	5.6
1,3,5-Trimethylbenzene	ND	1.1	ND	5.6
1,2,4-Trimethylbenzene	ND	1.1	ND	5.6
1,3-Dichlorobenzene	ND	1.1	ND	6.9
1,4-Dichlorobenzene	ND	1.1	ND	6.9
Benzyl chloride	ND	1.1	ND	5.9
1,2-Dichlorobenzene	ND	1.1	ND	6.9
1,2,4-Trichlorobenzene	ND	1.1	ND	8.5
Hexachlorobutadiene	ND	1.1	ND	12
Naphthalene	ND	4.6	ND	24

Surrogate	%REC	Limits
Bromofluorobenzene	95	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-6B	Diln Fac:	14.15
Lab ID:	290020-004	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	7.1	ND	35
Freon 114	ND	7.1	ND	49
Chloromethane	ND	7.1	ND	15
Vinyl Chloride	ND	7.1	ND	18
Bromomethane	ND	7.1	ND	27
Chloroethane	ND	7.1	ND	19
Trichlorofluoromethane	ND	7.1	ND	40
Acrolein	ND	28	ND	65
1,1-Dichloroethene	ND	24	ND	94
Freon 113	ND	7.1	ND	54
Acetone	80	28	190	67
Carbon Disulfide	ND	7.1	ND	22
Isopropanol	ND	28	ND	70
Methylene Chloride	ND	7.1	ND	25
trans-1,2-Dichloroethene	ND	7.1	ND	28
MTBE	ND	7.1	ND	26
n-Hexane	8.0	7.1	28	25
1,1-Dichloroethane	ND	7.1	ND	29
Vinyl Acetate	ND	7.1	ND	25
cis-1,2-Dichloroethene	ND	7.1	ND	28
2-Butanone	ND	24	ND	70
Ethyl Acetate	ND	7.1	ND	25
Tetrahydrofuran	ND	7.1	ND	21
Chloroform	ND	7.1	ND	35
1,1,1-Trichloroethane	ND	7.1	ND	39
Carbon Tetrachloride	ND	7.1	ND	45
Benzene	ND	7.1	ND	23
1,2-Dichloroethane	ND	7.1	ND	29
n-Heptane	ND	7.1	ND	29
Trichloroethene	ND	7.1	ND	38
1,2-Dichloropropane	ND	7.1	ND	33
Bromodichloromethane	ND	7.1	ND	47
cis-1,3-Dichloropropene	ND	7.1	ND	32
4-Methyl-2-Pentanone	ND	7.1	ND	29
Toluene	ND	280	ND	1,100

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-6B	Diln Fac:	14.15
Lab ID:	290020-004	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	7.1	ND	32
1,1,2-Trichloroethane	ND	7.1	ND	39
Tetrachloroethene	ND	7.1	ND	48
2-Hexanone	ND	7.1	ND	29
Dibromochloromethane	ND	7.1	ND	60
1,2-Dibromoethane	ND	7.1	ND	54
Chlorobenzene	ND	7.1	ND	33
Ethylbenzene	ND	7.1	ND	31
m,p-Xylenes	ND	7.1	ND	31
o-Xylene	ND	7.1	ND	31
Styrene	ND	7.1	ND	30
Bromoform	ND	7.1	ND	73
1,1,2,2-Tetrachloroethane	ND	7.1	ND	49
4-Ethyltoluene	ND	7.1	ND	35
1,3,5-Trimethylbenzene	ND	7.1	ND	35
1,2,4-Trimethylbenzene	ND	7.1	ND	35
1,3-Dichlorobenzene	ND	7.1	ND	43
1,4-Dichlorobenzene	ND	7.1	ND	43
Benzyl chloride	ND	7.1	ND	37
1,2-Dichlorobenzene	ND	7.1	ND	43
1,2,4-Trichlorobenzene	ND	7.1	ND	53
Hexachlorobutadiene	ND	7.1	ND	75
Naphthalene	ND	28	ND	150

Surrogate	%REC	Limits
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-6A	Diln Fac:	6.040
Lab ID:	290020-005	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	3.0	ND	15
Freon 114	ND	3.0	ND	21
Chloromethane	ND	3.0	ND	6.2
Vinyl Chloride	ND	3.0	ND	7.7
Bromomethane	ND	3.0	ND	12
Chloroethane	ND	3.0	ND	8.0
Trichlorofluoromethane	ND	3.0	ND	17
Acrolein	ND	12	ND	28
1,1-Dichloroethene	ND	10	ND	40
Freon 113	ND	3.0	ND	23
Acetone	ND	12	ND	29
Carbon Disulfide	72	3.0	220	9.4
Isopropanol	ND	12	ND	30
Methylene Chloride	ND	3.0	ND	10
trans-1,2-Dichloroethene	ND	3.0	ND	12
MTBE	ND	3.0	ND	11
n-Hexane	7.5	3.0	26	11
1,1-Dichloroethane	ND	3.0	ND	12
Vinyl Acetate	ND	3.0	ND	11
cis-1,2-Dichloroethene	ND	3.0	ND	12
2-Butanone	ND	10	ND	30
Ethyl Acetate	ND	3.0	ND	11
Tetrahydrofuran	7.2	3.0	21	8.9
Chloroform	3.7	3.0	18	15
1,1,1-Trichloroethane	ND	3.0	ND	16
Carbon Tetrachloride	ND	3.0	ND	19
Benzene	3.7	3.0	12	9.6
1,2-Dichloroethane	ND	3.0	ND	12
n-Heptane	ND	3.0	ND	12
Trichloroethene	ND	3.0	ND	16
1,2-Dichloropropane	ND	3.0	ND	14
Bromodichloromethane	ND	3.0	ND	20
cis-1,3-Dichloropropene	ND	3.0	ND	14
4-Methyl-2-Pentanone	ND	3.0	ND	12
Toluene	ND	120	ND	460

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-6A	Diln Fac:	6.040
Lab ID:	290020-005	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	3.0	ND	14
1,1,2-Trichloroethane	ND	3.0	ND	16
Tetrachloroethene	ND	3.0	ND	20
2-Hexanone	ND	3.0	ND	12
Dibromochloromethane	ND	3.0	ND	26
1,2-Dibromoethane	ND	3.0	ND	23
Chlorobenzene	ND	3.0	ND	14
Ethylbenzene	10	3.0	44	13
m,p-Xylenes	28	3.0	120	13
o-Xylene	11	3.0	49	13
Styrene	ND	3.0	ND	13
Bromoform	ND	3.0	ND	31
1,1,2,2-Tetrachloroethane	ND	3.0	ND	21
4-Ethyltoluene	3.9	3.0	19	15
1,3,5-Trimethylbenzene	ND	3.0	ND	15
1,2,4-Trimethylbenzene	8.4	3.0	41	15
1,3-Dichlorobenzene	ND	3.0	ND	18
1,4-Dichlorobenzene	ND	3.0	ND	18
Benzyl chloride	ND	3.0	ND	16
1,2-Dichlorobenzene	ND	3.0	ND	18
1,2,4-Trichlorobenzene	ND	3.0	ND	22
Hexachlorobutadiene	ND	3.0	ND	32
Naphthalene	ND	12	ND	63

Surrogate	%REC	Limits
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-7	Diln Fac:	4.040
Lab ID:	290020-006	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	2.0	ND	10
Freon 114	ND	2.0	ND	14
Chloromethane	ND	2.0	ND	4.2
Vinyl Chloride	ND	2.0	ND	5.2
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
Acrolein	ND	8.1	ND	19
1,1-Dichloroethene	ND	6.7	ND	27
Freon 113	ND	2.0	ND	15
Acetone	13	8.1	31	19
Carbon Disulfide	130	2.0	410	6.3
Isopropanol	ND	8.1	ND	20
Methylene Chloride	ND	2.0	ND	7.0
trans-1,2-Dichloroethene	ND	2.0	ND	8.0
MTBE	ND	2.0	ND	7.3
n-Hexane	ND	2.0	ND	7.1
1,1-Dichloroethane	ND	2.0	ND	8.2
Vinyl Acetate	ND	2.0	ND	7.1
cis-1,2-Dichloroethene	ND	2.0	ND	8.0
2-Butanone	ND	6.7	ND	20
Ethyl Acetate	ND	2.0	ND	7.3
Tetrahydrofuran	5.9	2.0	17	6.0
Chloroform	ND	2.0	ND	9.9
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon Tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.5
1,2-Dichloroethane	ND	2.0	ND	8.2
n-Heptane	ND	2.0	ND	8.3
Trichloroethene	3.7	2.0	20	11
1,2-Dichloropropane	ND	2.0	ND	9.3
Bromodichloromethane	ND	2.0	ND	14
cis-1,3-Dichloropropene	ND	2.0	ND	9.2
4-Methyl-2-Pentanone	ND	2.0	ND	8.3
Toluene	ND	81	ND	300

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-7	Diln Fac:	4.040
Lab ID:	290020-006	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	2.0	ND	9.2
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
2-Hexanone	ND	2.0	ND	8.3
Dibromochloromethane	ND	2.0	ND	17
1,2-Dibromoethane	ND	2.0	ND	16
Chlorobenzene	ND	2.0	ND	9.3
Ethylbenzene	ND	2.0	ND	8.8
m,p-Xylenes	ND	2.0	ND	8.8
o-Xylene	ND	2.0	ND	8.8
Styrene	ND	2.0	ND	8.6
Bromoform	ND	2.0	ND	21
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
4-Ethyltoluene	ND	2.0	ND	9.9
1,3,5-Trimethylbenzene	ND	2.0	ND	9.9
1,2,4-Trimethylbenzene	ND	2.0	ND	9.9
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	2.0	ND	10
1,2-Dichlorobenzene	ND	2.0	ND	12
1,2,4-Trichlorobenzene	ND	2.0	ND	15
Hexachlorobutadiene	ND	2.0	ND	22
Naphthalene	ND	8.1	ND	42

Surrogate	%REC	Limits
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-10	Diln Fac:	4.040
Lab ID:	290020-007	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	2.0	ND	10
Freon 114	ND	2.0	ND	14
Chloromethane	ND	2.0	ND	4.2
Vinyl Chloride	ND	2.0	ND	5.2
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
Acrolein	ND	8.1	ND	19
1,1-Dichloroethene	ND	6.7	ND	27
Freon 113	ND	2.0	ND	15
Acetone	10	8.1	25	19
Carbon Disulfide	3.4	2.0	11	6.3
Isopropanol	ND	8.1	ND	20
Methylene Chloride	ND	2.0	ND	7.0
trans-1,2-Dichloroethene	ND	2.0	ND	8.0
MTBE	ND	2.0	ND	7.3
n-Hexane	ND	2.0	ND	7.1
1,1-Dichloroethane	ND	2.0	ND	8.2
Vinyl Acetate	ND	2.0	ND	7.1
cis-1,2-Dichloroethene	ND	2.0	ND	8.0
2-Butanone	ND	6.7	ND	20
Ethyl Acetate	ND	2.0	ND	7.3
Tetrahydrofuran	3.3	2.0	9.6	6.0
Chloroform	3.1	2.0	15	9.9
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon Tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.5
1,2-Dichloroethane	ND	2.0	ND	8.2
n-Heptane	ND	2.0	ND	8.3
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.3
Bromodichloromethane	ND	2.0	ND	14
cis-1,3-Dichloropropene	ND	2.0	ND	9.2
4-Methyl-2-Pentanone	ND	2.0	ND	8.3
Toluene	ND	81	ND	300

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-10	Diln Fac:	4.040
Lab ID:	290020-007	Batch#:	249090
Matrix:	Air	Sampled:	06/15/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	2.0	ND	9.2
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	4.1	2.0	28	14
2-Hexanone	ND	2.0	ND	8.3
Dibromochloromethane	ND	2.0	ND	17
1,2-Dibromoethane	ND	2.0	ND	16
Chlorobenzene	ND	2.0	ND	9.3
Ethylbenzene	ND	2.0	ND	8.8
m,p-Xylenes	ND	2.0	ND	8.8
o-Xylene	ND	2.0	ND	8.8
Styrene	ND	2.0	ND	8.6
Bromoform	ND	2.0	ND	21
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
4-Ethyltoluene	ND	2.0	ND	9.9
1,3,5-Trimethylbenzene	ND	2.0	ND	9.9
1,2,4-Trimethylbenzene	ND	2.0	ND	9.9
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	2.0	ND	10
1,2-Dichlorobenzene	ND	2.0	ND	12
1,2,4-Trichlorobenzene	ND	2.0	ND	15
Hexachlorobutadiene	ND	2.0	ND	22
Naphthalene	ND	8.1	ND	42

Surrogate	%REC	Limits
Bromofluorobenzene	93	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-8	Diln Fac:	3.800
Lab ID:	290020-008	Batch#:	249090
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	1.9	ND	9.4
Freon 114	ND	1.9	ND	13
Chloromethane	ND	1.9	ND	3.9
Vinyl Chloride	ND	1.9	ND	4.9
Bromomethane	ND	1.9	ND	7.4
Chloroethane	ND	1.9	ND	5.0
Trichlorofluoromethane	ND	1.9	ND	11
Acrolein	ND	7.6	ND	17
1,1-Dichloroethene	ND	6.3	ND	25
Freon 113	ND	1.9	ND	15
Acetone	9.1	7.6	22	18
Carbon Disulfide	19	1.9	59	5.9
Isopropanol	ND	7.6	ND	19
Methylene Chloride	ND	1.9	ND	6.6
trans-1,2-Dichloroethene	ND	1.9	ND	7.5
MTBE	ND	1.9	ND	6.9
n-Hexane	ND	1.9	ND	6.7
1,1-Dichloroethane	ND	1.9	ND	7.7
Vinyl Acetate	ND	1.9	ND	6.7
cis-1,2-Dichloroethene	ND	1.9	ND	7.5
2-Butanone	ND	6.3	ND	19
Ethyl Acetate	ND	1.9	ND	6.8
Tetrahydrofuran	ND	1.9	ND	5.6
Chloroform	5.7	1.9	28	9.3
1,1,1-Trichloroethane	ND	1.9	ND	10
Carbon Tetrachloride	ND	1.9	ND	12
Benzene	ND	1.9	ND	6.1
1,2-Dichloroethane	ND	1.9	ND	7.7
n-Heptane	ND	1.9	ND	7.8
Trichloroethene	ND	1.9	ND	10
1,2-Dichloropropane	ND	1.9	ND	8.8
Bromodichloromethane	ND	1.9	ND	13
cis-1,3-Dichloropropene	ND	1.9	ND	8.6
4-Methyl-2-Pentanone	ND	1.9	ND	7.8
Toluene	ND	76	ND	290

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-8	Diln Fac:	3.800
Lab ID:	290020-008	Batch#:	249090
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	1.9	ND	8.6
1,1,2-Trichloroethane	ND	1.9	ND	10
Tetrachloroethene	ND	1.9	ND	13
2-Hexanone	ND	1.9	ND	7.8
Dibromochloromethane	ND	1.9	ND	16
1,2-Dibromoethane	ND	1.9	ND	15
Chlorobenzene	ND	1.9	ND	8.7
Ethylbenzene	ND	1.9	ND	8.3
m,p-Xylenes	ND	1.9	ND	8.3
o-Xylene	ND	1.9	ND	8.3
Styrene	ND	1.9	ND	8.1
Bromoform	ND	1.9	ND	20
1,1,2,2-Tetrachloroethane	ND	1.9	ND	13
4-Ethyltoluene	ND	1.9	ND	9.3
1,3,5-Trimethylbenzene	ND	1.9	ND	9.3
1,2,4-Trimethylbenzene	ND	1.9	ND	9.3
1,3-Dichlorobenzene	ND	1.9	ND	11
1,4-Dichlorobenzene	ND	1.9	ND	11
Benzyl chloride	ND	1.9	ND	9.8
1,2-Dichlorobenzene	ND	1.9	ND	11
1,2,4-Trichlorobenzene	ND	1.9	ND	14
Hexachlorobutadiene	ND	1.9	ND	20
Naphthalene	ND	7.6	ND	40

Surrogate	%REC	Limits
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-1	Diln Fac:	2.250
Lab ID:	290020-010	Batch#:	249090
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	1.1	ND	5.6
Freon 114	ND	1.1	ND	7.9
Chloromethane	ND	1.1	ND	2.3
Vinyl Chloride	ND	1.1	ND	2.9
Bromomethane	ND	1.1	ND	4.4
Chloroethane	ND	1.1	ND	3.0
Trichlorofluoromethane	ND	1.1	ND	6.3
Acrolein	ND	4.5	ND	10
1,1-Dichloroethene	ND	3.8	ND	15
Freon 113	ND	1.1	ND	8.6
Acetone	7.4	4.5	18	11
Carbon Disulfide	1.2	1.1	3.9	3.5
Isopropanol	ND	4.5	ND	11
Methylene Chloride	ND	1.1	ND	3.9
trans-1,2-Dichloroethene	ND	1.1	ND	4.5
MTBE	ND	1.1	ND	4.1
n-Hexane	ND	1.1	ND	4.0
1,1-Dichloroethane	ND	1.1	ND	4.6
Vinyl Acetate	ND	1.1	ND	4.0
cis-1,2-Dichloroethene	ND	1.1	ND	4.5
2-Butanone	4.6	3.8	14	11
Ethyl Acetate	ND	1.1	ND	4.1
Tetrahydrofuran	ND	1.1	ND	3.3
Chloroform	1.9	1.1	9.4	5.5
1,1,1-Trichloroethane	ND	1.1	ND	6.1
Carbon Tetrachloride	ND	1.1	ND	7.1
Benzene	ND	1.1	ND	3.6
1,2-Dichloroethane	ND	1.1	ND	4.6
n-Heptane	ND	1.1	ND	4.6
Trichloroethene	ND	1.1	ND	6.0
1,2-Dichloropropane	ND	1.1	ND	5.2
Bromodichloromethane	ND	1.1	ND	7.5
cis-1,3-Dichloropropene	ND	1.1	ND	5.1
4-Methyl-2-Pentanone	ND	1.1	ND	4.6
Toluene	ND	45	ND	170

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-1	Diln Fac:	2.250
Lab ID:	290020-010	Batch#:	249090
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	1.1	ND	5.1
1,1,2-Trichloroethane	ND	1.1	ND	6.1
Tetrachloroethene	ND	1.1	ND	7.6
2-Hexanone	ND	1.1	ND	4.6
Dibromochloromethane	ND	1.1	ND	9.6
1,2-Dibromoethane	ND	1.1	ND	8.6
Chlorobenzene	ND	1.1	ND	5.2
Ethylbenzene	ND	1.1	ND	4.9
m,p-Xylenes	ND	1.1	ND	4.9
o-Xylene	ND	1.1	ND	4.9
Styrene	ND	1.1	ND	4.8
Bromoform	ND	1.1	ND	12
1,1,2,2-Tetrachloroethane	ND	1.1	ND	7.7
4-Ethyltoluene	ND	1.1	ND	5.5
1,3,5-Trimethylbenzene	ND	1.1	ND	5.5
1,2,4-Trimethylbenzene	ND	1.1	ND	5.5
1,3-Dichlorobenzene	ND	1.1	ND	6.8
1,4-Dichlorobenzene	ND	1.1	ND	6.8
Benzyl chloride	ND	1.1	ND	5.8
1,2-Dichlorobenzene	ND	1.1	ND	6.8
1,2,4-Trichlorobenzene	ND	1.1	ND	8.3
Hexachlorobutadiene	ND	1.1	ND	12
Naphthalene	ND	4.5	ND	24

Surrogate	%REC	Limits
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-3	Diln Fac:	2.220
Lab ID:	290020-011	Batch#:	249136
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/28/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	1.1	ND	5.5
Freon 114	ND	1.1	ND	7.8
Chloromethane	ND	1.1	ND	2.3
Vinyl Chloride	ND	1.1	ND	2.8
Bromomethane	ND	1.1	ND	4.3
Chloroethane	ND	1.1	ND	2.9
Trichlorofluoromethane	ND	1.1	ND	6.2
Acrolein	ND	4.4	ND	10
1,1-Dichloroethene	ND	3.7	ND	15
Freon 113	ND	1.1	ND	8.5
Acetone	ND	4.4	ND	11
Carbon Disulfide	94	1.1	290	3.5
Isopropanol	ND	4.4	ND	11
Methylene Chloride	ND	1.1	ND	3.9
trans-1,2-Dichloroethene	ND	1.1	ND	4.4
MTBE	ND	1.1	ND	4.0
n-Hexane	8.6	1.1	30	3.9
1,1-Dichloroethane	ND	1.1	ND	4.5
Vinyl Acetate	ND	1.1	ND	3.9
cis-1,2-Dichloroethene	ND	1.1	ND	4.4
2-Butanone	ND	3.7	ND	11
Ethyl Acetate	ND	1.1	ND	4.0
Tetrahydrofuran	ND	1.1	ND	3.3
Chloroform	5.1	1.1	25	5.4
1,1,1-Trichloroethane	ND	1.1	ND	6.1
Carbon Tetrachloride	ND	1.1	ND	7.0
Benzene	9.4	1.1	30	3.5
1,2-Dichloroethane	ND	1.1	ND	4.5
n-Heptane	1.5	1.1	6.1	4.5
Trichloroethene	ND	1.1	ND	6.0
1,2-Dichloropropane	ND	1.1	ND	5.1
Bromodichloromethane	ND	1.1	ND	7.4
cis-1,3-Dichloropropene	ND	1.1	ND	5.0
4-Methyl-2-Pentanone	ND	1.1	ND	4.5
Toluene	ND	44	ND	170

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-3	Diln Fac:	2.220
Lab ID:	290020-011	Batch#:	249136
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	06/28/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	1.1	ND	5.0
1,1,2-Trichloroethane	ND	1.1	ND	6.1
Tetrachloroethene	ND	1.1	ND	7.5
2-Hexanone	ND	1.1	ND	4.5
Dibromochloromethane	ND	1.1	ND	9.5
1,2-Dibromoethane	ND	1.1	ND	8.5
Chlorobenzene	ND	1.1	ND	5.1
Ethylbenzene	6.5	1.1	28	4.8
m,p-Xylenes	2.7	1.1	12	4.8
o-Xylene	1.9	1.1	8.2	4.8
Styrene	ND	1.1	ND	4.7
Bromoform	ND	1.1	ND	11
1,1,2,2-Tetrachloroethane	ND	1.1	ND	7.6
4-Ethyltoluene	ND	1.1	ND	5.5
1,3,5-Trimethylbenzene	ND	1.1	ND	5.5
1,2,4-Trimethylbenzene	ND	1.1	ND	5.5
1,3-Dichlorobenzene	ND	1.1	ND	6.7
1,4-Dichlorobenzene	ND	1.1	ND	6.7
Benzyl chloride	ND	1.1	ND	5.7
1,2-Dichlorobenzene	ND	1.1	ND	6.7
1,2,4-Trichlorobenzene	ND	1.1	ND	8.2
Hexachlorobutadiene	ND	1.1	ND	12
Naphthalene	ND	4.4	ND	23

Surrogate	%REC	Limits
Bromofluorobenzene	83	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-2	Diln Fac:	5.850
Lab ID:	290020-012	Batch#:	249284
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	07/01/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	2.9	ND	14
Freon 114	ND	2.9	ND	20
Chloromethane	ND	2.9	ND	6.0
Vinyl Chloride	ND	2.9	ND	7.5
Bromomethane	ND	2.9	ND	11
Chloroethane	ND	2.9	ND	7.7
Trichlorofluoromethane	ND	2.9	ND	16
Acrolein	ND	12	ND	27
1,1-Dichloroethene	ND	2.9	ND	12
Freon 113	ND	2.9	ND	22
Acetone	13	12	32	28
Carbon Disulfide	22	2.9	70	9.1
Isopropanol	ND	12	ND	29
Methylene Chloride	ND	2.9	ND	10
trans-1,2-Dichloroethene	ND	2.9	ND	12
MTBE	ND	2.9	ND	11
n-Hexane	49	2.9	170	10
1,1-Dichloroethane	ND	2.9	ND	12
Vinyl Acetate	ND	2.9	ND	10
cis-1,2-Dichloroethene	ND	2.9	ND	12
2-Butanone	6.3	2.9	19	8.6
Ethyl Acetate	ND	2.9	ND	11
Tetrahydrofuran	ND	2.9	ND	8.6
Chloroform	3.6	2.9	17	14
1,1,1-Trichloroethane	ND	2.9	ND	16
Carbon Tetrachloride	ND	2.9	ND	18
Benzene	5.4	2.9	17	9.3
1,2-Dichloroethane	ND	2.9	ND	12
n-Heptane	18	2.9	72	12
Trichloroethene	3.0	2.9	16	16
1,2-Dichloropropane	ND	2.9	ND	14
Bromodichloromethane	ND	2.9	ND	20
cis-1,3-Dichloropropene	ND	2.9	ND	13
4-Methyl-2-Pentanone	ND	2.9	ND	12
Toluene	ND	120	ND	440

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Field ID:	SV-2	Diln Fac:	5.850
Lab ID:	290020-012	Batch#:	249284
Matrix:	Air	Sampled:	06/20/17
Units (V):	ppbv	Received:	06/20/17
Units (M):	ug/m3	Analyzed:	07/01/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	2.9	ND	13
1,1,2-Trichloroethane	ND	2.9	ND	16
Tetrachloroethene	ND	2.9	ND	20
2-Hexanone	ND	2.9	ND	12
Dibromochloromethane	ND	2.9	ND	25
1,2-Dibromoethane	ND	2.9	ND	22
Chlorobenzene	ND	2.9	ND	13
Ethylbenzene	12	2.9	52	13
m,p-Xylenes	10	2.9	44	13
o-Xylene	3.7	2.9	16	13
Styrene	ND	9.8	ND	42
Bromoform	ND	2.9	ND	30
1,1,2,2-Tetrachloroethane	ND	2.9	ND	20
4-Ethyltoluene	ND	2.9	ND	14
1,3,5-Trimethylbenzene	ND	2.9	ND	14
1,2,4-Trimethylbenzene	3.7	2.9	18	14
1,3-Dichlorobenzene	ND	2.9	ND	18
1,4-Dichlorobenzene	ND	2.9	ND	18
Benzyl chloride	ND	2.9	ND	15
1,2-Dichlorobenzene	ND	2.9	ND	18
1,2,4-Trichlorobenzene	ND	2.9	ND	22
Hexachlorobutadiene	ND	2.9	ND	31
Naphthalene	ND	12	ND	61

Surrogate	%REC	Limits
Bromofluorobenzene	116	80-120

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17
Diln Fac:	1.000		

Type: BS Lab ID: QC890676

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	10.00	9.310	93	70-130
Freon 114	10.00	10.71	107	70-130
Chloromethane	10.00	9.893	99	70-130
Vinyl Chloride	10.00	10.80	108	70-130
Bromomethane	10.00	10.23	102	70-130
Chloroethane	10.00	10.02	100	70-130
Trichlorofluoromethane	10.00	10.74	107	70-130
Acrolein	10.00	11.40	114	70-130
1,1-Dichloroethene	10.00	11.88	119	70-130
Freon 113	10.00	11.43	114	70-130
Acetone	10.00	9.986	100	70-130
Carbon Disulfide	10.00	10.84	108	70-130
Isopropanol	10.00	9.449	94	70-130
Methylene Chloride	10.00	10.96	110	70-130
trans-1,2-Dichloroethene	10.00	12.00	120	70-130
MTBE	10.00	12.89	129	70-130
n-Hexane	10.00	9.394	94	70-130
1,1-Dichloroethane	10.00	11.33	113	70-130
Vinyl Acetate	10.00	11.36	114	70-130
cis-1,2-Dichloroethene	10.00	11.88	119	70-130
2-Butanone	10.00	11.40	114	70-130
Ethyl Acetate	10.00	11.30	113	70-130
Tetrahydrofuran	10.00	13.18 b	132 *	70-130
Chloroform	10.00	10.75	108	70-130
1,1,1-Trichloroethane	10.00	12.47	125	70-130
Carbon Tetrachloride	10.00	10.24	102	70-130
Benzene	10.00	10.05	101	70-130
1,2-Dichloroethane	10.00	13.75 b	138 *	70-130
n-Heptane	10.00	11.76	118	70-130
Trichloroethene	10.00	11.15	111	70-130
1,2-Dichloropropane	10.00	11.28	113	70-130
Bromodichloromethane	10.00	11.83	118	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
cis-1,3-Dichloropropene	10.00	11.74	117	70-130
4-Methyl-2-Pentanone	10.00	11.33	113	70-130
Toluene	10.00	8.828	88	70-130
trans-1,3-Dichloropropene	10.00	10.86	109	70-130
1,1,2-Trichloroethane	10.00	10.27	103	70-130
Tetrachloroethene	10.00	9.705	97	70-130
2-Hexanone	10.00	9.001	90	70-130
Dibromochloromethane	10.00	10.00	100	70-130
1,2-Dibromoethane	10.00	9.341	93	70-130
Chlorobenzene	10.00	8.954	90	70-130
Ethylbenzene	10.00	10.64	106	70-130
m,p-Xylenes	20.00	22.91	115	70-130
o-Xylene	10.00	11.45	114	70-130
Styrene	10.00	10.46	105	70-130
Bromoform	10.00	9.918	99	70-130
1,1,2,2-Tetrachloroethane	10.00	9.957	100	70-130
4-Ethyltoluene	10.00	11.89	119	70-130
1,3,5-Trimethylbenzene	10.00	11.78	118	70-130
1,2,4-Trimethylbenzene	10.00	11.44	114	70-130
1,3-Dichlorobenzene	10.00	10.89	109	70-130
1,4-Dichlorobenzene	10.00	10.85	109	70-130
Benzyl chloride	10.00	11.12	111	70-130
1,2-Dichlorobenzene	10.00	10.84	108	70-130
1,2,4-Trichlorobenzene	10.00	10.18	102	70-130
Hexachlorobutadiene	10.00	10.06	101	70-130
Naphthalene	10.00	10.50	105	70-130

Surrogate	%REC	Limits
Bromofluorobenzene	116	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17
Diln Fac:	1.000		

Type: BSD Lab ID: QC890677

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Freon 12	10.00	9.222	92	70-130	1	25
Freon 114	10.00	10.49	105	70-130	2	25
Chloromethane	10.00	10.06	101	70-130	2	25
Vinyl Chloride	10.00	10.86	109	70-130	1	25
Bromomethane	10.00	10.39	104	70-130	2	25
Chloroethane	10.00	10.00	100	70-130	0	25
Trichlorofluoromethane	10.00	10.60	106	70-130	1	25
Acrolein	10.00	10.64	106	70-130	7	25
1,1-Dichloroethene	10.00	11.92	119	70-130	0	25
Freon 113	10.00	11.44	114	70-130	0	25
Acetone	10.00	9.649	96	70-130	3	25
Carbon Disulfide	10.00	10.85	109	70-130	0	25
Isopropanol	10.00	9.013	90	70-130	5	25
Methylene Chloride	10.00	10.79	108	70-130	2	25
trans-1,2-Dichloroethene	10.00	11.93	119	70-130	1	25
MTBE	10.00	12.51	125	70-130	3	25
n-Hexane	10.00	8.892	89	70-130	5	25
1,1-Dichloroethane	10.00	11.13	111	70-130	2	25
Vinyl Acetate	10.00	11.13	111	70-130	2	25
cis-1,2-Dichloroethene	10.00	11.81	118	70-130	1	25
2-Butanone	10.00	10.94	109	70-130	4	25
Ethyl Acetate	10.00	11.19	112	70-130	1	25
Tetrahydrofuran	10.00	13.12 b	131 *	70-130	0	25
Chloroform	10.00	11.02	110	70-130	2	25
1,1,1-Trichloroethane	10.00	12.50	125	70-130	0	25
Carbon Tetrachloride	10.00	10.09	101	70-130	1	25
Benzene	10.00	9.822	98	70-130	2	25
1,2-Dichloroethane	10.00	13.45 b	135 *	70-130	2	25
n-Heptane	10.00	11.98	120	70-130	2	25
Trichloroethene	10.00	10.95	109	70-130	2	25
1,2-Dichloropropane	10.00	11.29	113	70-130	0	25
Bromodichloromethane	10.00	11.72	117	70-130	1	25

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
cis-1,3-Dichloropropene	10.00	11.25	112	70-130	4	25
4-Methyl-2-Pentanone	10.00	11.17	112	70-130	1	25
Toluene	10.00	8.899	89	70-130	1	25
trans-1,3-Dichloropropene	10.00	10.99	110	70-130	1	25
1,1,2-Trichloroethane	10.00	9.623	96	70-130	7	25
Tetrachloroethene	10.00	9.093	91	70-130	7	25
2-Hexanone	10.00	9.113	91	70-130	1	25
Dibromochloromethane	10.00	9.649	96	70-130	4	25
1,2-Dibromoethane	10.00	9.016	90	70-130	4	25
Chlorobenzene	10.00	9.082	91	70-130	1	25
Ethylbenzene	10.00	10.77	108	70-130	1	25
m,p-Xylenes	20.00	22.72	114	70-130	1	25
o-Xylene	10.00	11.01	110	70-130	4	25
Styrene	10.00	10.42	104	70-130	0	25
Bromoform	10.00	9.606	96	70-130	3	25
1,1,2,2-Tetrachloroethane	10.00	9.478	95	70-130	5	25
4-Ethyltoluene	10.00	11.26	113	70-130	5	25
1,3,5-Trimethylbenzene	10.00	11.63	116	70-130	1	25
1,2,4-Trimethylbenzene	10.00	11.67	117	70-130	2	25
1,3-Dichlorobenzene	10.00	10.84	108	70-130	0	25
1,4-Dichlorobenzene	10.00	10.73	107	70-130	1	25
Benzyl chloride	10.00	11.22	112	70-130	1	25
1,2-Dichlorobenzene	10.00	10.68	107	70-130	1	25
1,2,4-Trichlorobenzene	10.00	10.17	102	70-130	0	25
Hexachlorobutadiene	10.00	9.919	99	70-130	1	25
Naphthalene	10.00	10.30	103	70-130	2	25

Surrogate	%REC	Limits
Bromofluorobenzene	114	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC890678	Diln Fac:	1.000
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	0.50	ND	2.0
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	0.50	ND	1.5
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	20	ND	75

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC890678	Diln Fac:	1.000
Matrix:	Air	Batch#:	249045
Units (V):	ppbv	Analyzed:	06/23/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	0.50	ND	2.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	106	70-130

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17
Diln Fac:	1.000		

Type: BS Lab ID: QC890842

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	5.000	5.120	102	70-130
Freon 114	5.000	5.221	104	70-130
Chloromethane	5.000	4.433	89	70-130
Vinyl Chloride	5.000	5.820	116	70-130
Bromomethane	5.000	4.666	93	70-130
Chloroethane	5.000	4.878	98	70-130
Trichlorofluoromethane	5.000	5.272	105	70-130
Acrolein	5.000	4.010	80	70-130
1,1-Dichloroethene	5.000	4.819	96	70-130
Freon 113	5.000	5.210	104	70-130
Acetone	5.000	5.161	103	70-130
Carbon Disulfide	5.000	4.917	98	70-130
Isopropanol	5.000	4.485	90	70-130
Methylene Chloride	5.000	4.153	83	70-130
trans-1,2-Dichloroethene	5.000	5.605	112	70-130
MTBE	5.000	5.137	103	70-130
n-Hexane	5.000	5.004	100	70-130
1,1-Dichloroethane	5.000	5.018	100	70-130
Vinyl Acetate	5.000	4.792	96	70-130
cis-1,2-Dichloroethene	5.000	7.463 b	149 *	70-130
2-Butanone	5.000	4.693	94	70-130
Ethyl Acetate	5.000	5.591	112	70-130
Tetrahydrofuran	5.000	5.531	111	70-130
Chloroform	5.000	5.020	100	70-130
1,1,1-Trichloroethane	5.000	5.172	103	70-130
Carbon Tetrachloride	5.000	5.139	103	70-130
Benzene	5.000	5.060	101	70-130
1,2-Dichloroethane	5.000	4.804	96	70-130
n-Heptane	5.000	5.815	116	70-130
Trichloroethene	5.000	6.054	121	70-130
1,2-Dichloropropane	5.000	5.455	109	70-130
Bromodichloromethane	5.000	4.929	99	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
cis-1,3-Dichloropropene	5.000	5.066	101	70-130
4-Methyl-2-Pentanone	5.000	5.981	120	70-130
Toluene	5.000	6.975 b	140 *	70-130
trans-1,3-Dichloropropene	5.000	5.185	104	70-130
1,1,2-Trichloroethane	5.000	5.547	111	70-130
Tetrachloroethene	5.000	5.712	114	70-130
2-Hexanone	5.000	6.341	127	70-130
Dibromochloromethane	5.000	5.285	106	70-130
1,2-Dibromoethane	5.000	5.269	105	70-130
Chlorobenzene	5.000	5.445	109	70-130
Ethylbenzene	5.000	5.567	111	70-130
m,p-Xylenes	10.00	11.24	112	70-130
o-Xylene	5.000	5.447	109	70-130
Styrene	5.000	4.370	87	70-130
Bromoform	5.000	5.446	109	70-130
1,1,2,2-Tetrachloroethane	5.000	5.106	102	70-130
4-Ethyltoluene	5.000	5.556	111	70-130
1,3,5-Trimethylbenzene	5.000	5.473	109	70-130
1,2,4-Trimethylbenzene	5.000	5.686	114	70-130
1,3-Dichlorobenzene	5.000	5.185	104	70-130
1,4-Dichlorobenzene	5.000	5.149	103	70-130
Benzyl chloride	5.000	5.350	107	70-130
1,2-Dichlorobenzene	5.000	5.274	105	70-130
1,2,4-Trichlorobenzene	5.000	5.910	118	70-130
Hexachlorobutadiene	5.000	6.325	127	70-130
Naphthalene	5.000	5.625	113	70-130

Surrogate	%REC	Limits
Bromofluorobenzene	94	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17
Diln Fac:	1.000		

Type: BSD Lab ID: QC890843

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Freon 12	5.000	4.787	96	70-130	7	25
Freon 114	5.000	4.941	99	70-130	6	25
Chloromethane	5.000	4.175	84	70-130	6	25
Vinyl Chloride	5.000	5.417	108	70-130	7	25
Bromomethane	5.000	4.425	89	70-130	5	25
Chloroethane	5.000	4.400	88	70-130	10	25
Trichlorofluoromethane	5.000	4.999	100	70-130	5	25
Acrolein	5.000	4.090	82	70-130	2	25
1,1-Dichloroethene	5.000	4.700	94	70-130	3	25
Freon 113	5.000	5.020	100	70-130	4	25
Acetone	5.000	5.001	100	70-130	3	25
Carbon Disulfide	5.000	4.672	93	70-130	5	25
Isopropanol	5.000	4.412	88	70-130	2	25
Methylene Chloride	5.000	4.073	81	70-130	2	25
trans-1,2-Dichloroethene	5.000	5.555	111	70-130	1	25
MTBE	5.000	5.043	101	70-130	2	25
n-Hexane	5.000	4.925	99	70-130	2	25
1,1-Dichloroethane	5.000	4.978	100	70-130	1	25
Vinyl Acetate	5.000	4.684	94	70-130	2	25
cis-1,2-Dichloroethene	5.000	7.113 b	142 *	70-130	5	25
2-Butanone	5.000	4.498	90	70-130	4	25
Ethyl Acetate	5.000	5.412	108	70-130	3	25
Tetrahydrofuran	5.000	5.550	111	70-130	0	25
Chloroform	5.000	4.905	98	70-130	2	25
1,1,1-Trichloroethane	5.000	5.073	101	70-130	2	25
Carbon Tetrachloride	5.000	5.131	103	70-130	0	25
Benzene	5.000	4.801	96	70-130	5	25
1,2-Dichloroethane	5.000	4.823	96	70-130	0	25
n-Heptane	5.000	5.709	114	70-130	2	25
Trichloroethene	5.000	5.969	119	70-130	1	25
1,2-Dichloropropane	5.000	5.431	109	70-130	0	25
Bromodichloromethane	5.000	5.069	101	70-130	3	25

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
cis-1,3-Dichloropropene	5.000	5.025	101	70-130	1	25
4-Methyl-2-Pentanone	5.000	6.034	121	70-130	1	25
Toluene	5.000	6.840 b	137 *	70-130	2	25
trans-1,3-Dichloropropene	5.000	5.083	102	70-130	2	25
1,1,2-Trichloroethane	5.000	5.375	108	70-130	3	25
Tetrachloroethene	5.000	5.623	112	70-130	2	25
2-Hexanone	5.000	6.291	126	70-130	1	25
Dibromochloromethane	5.000	5.038	101	70-130	5	25
1,2-Dibromoethane	5.000	5.040	101	70-130	4	25
Chlorobenzene	5.000	5.383	108	70-130	1	25
Ethylbenzene	5.000	5.503	110	70-130	1	25
m,p-Xylenes	10.00	11.03	110	70-130	2	25
o-Xylene	5.000	5.359	107	70-130	2	25
Styrene	5.000	4.374	87	70-130	0	25
Bromoform	5.000	5.412	108	70-130	1	25
1,1,2,2-Tetrachloroethane	5.000	5.026	101	70-130	2	25
4-Ethyltoluene	5.000	5.441	109	70-130	2	25
1,3,5-Trimethylbenzene	5.000	5.524	110	70-130	1	25
1,2,4-Trimethylbenzene	5.000	5.641	113	70-130	1	25
1,3-Dichlorobenzene	5.000	5.080	102	70-130	2	25
1,4-Dichlorobenzene	5.000	5.185	104	70-130	1	25
Benzyl chloride	5.000	5.136	103	70-130	4	25
1,2-Dichlorobenzene	5.000	5.204	104	70-130	1	25
1,2,4-Trichlorobenzene	5.000	5.976	120	70-130	1	25
Hexachlorobutadiene	5.000	6.326	127	70-130	0	25
Naphthalene	5.000	5.471	109	70-130	3	25

Surrogate	%REC	Limits
Bromofluorobenzene	94	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC890844	Diln Fac:	1.000
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	1.7	ND	6.6
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	1.7	ND	4.9
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	20	ND	75

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC890844	Diln Fac:	1.000
Matrix:	Air	Batch#:	249090
Units (V):	ppbv	Analyzed:	06/26/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	0.50	ND	2.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	92	70-130

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17
Diln Fac:	1.000		

Type: BS Lab ID: QC891013

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	5.000	4.876	98	70-130
Freon 114	5.000	5.054	101	70-130
Chloromethane	5.000	4.312	86	70-130
Vinyl Chloride	5.000	5.555	111	70-130
Bromomethane	5.000	4.499	90	70-130
Chloroethane	5.000	4.190	84	70-130
Trichlorofluoromethane	5.000	5.079	102	70-130
Acrolein	5.000	3.996	80	70-130
1,1-Dichloroethene	5.000	4.652	93	70-130
Freon 113	5.000	5.166	103	70-130
Acetone	5.000	5.016	100	70-130
Carbon Disulfide	5.000	4.803	96	70-130
Isopropanol	5.000	4.391	88	70-130
Methylene Chloride	5.000	4.255	85	70-130
trans-1,2-Dichloroethene	5.000	5.680	114	70-130
MTBE	5.000	5.181	104	70-130
n-Hexane	5.000	5.186	104	70-130
1,1-Dichloroethane	5.000	5.070	101	70-130
Vinyl Acetate	5.000	4.695	94	70-130
cis-1,2-Dichloroethene	5.000	7.713 b	154 *	70-130
2-Butanone	5.000	4.584	92	70-130
Ethyl Acetate	5.000	5.633	113	70-130
Tetrahydrofuran	5.000	5.705	114	70-130
Chloroform	5.000	5.312	106	70-130
1,1,1-Trichloroethane	5.000	5.120	102	70-130
Carbon Tetrachloride	5.000	5.206	104	70-130
Benzene	5.000	4.996	100	70-130
1,2-Dichloroethane	5.000	4.953	99	70-130
n-Heptane	5.000	5.822	116	70-130
Trichloroethene	5.000	6.187	124	70-130
1,2-Dichloropropane	5.000	5.528	111	70-130
Bromodichloromethane	5.000	5.108	102	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
cis-1,3-Dichloropropene	5.000	5.061	101	70-130
4-Methyl-2-Pentanone	5.000	5.996	120	70-130
Toluene	5.000	7.530 b	151 *	70-130
trans-1,3-Dichloropropene	5.000	5.089	102	70-130
1,1,2-Trichloroethane	5.000	5.479	110	70-130
Tetrachloroethene	5.000	5.847	117	70-130
2-Hexanone	5.000	6.429	129	70-130
Dibromochloromethane	5.000	5.308	106	70-130
1,2-Dibromoethane	5.000	5.351	107	70-130
Chlorobenzene	5.000	5.635	113	70-130
Ethylbenzene	5.000	5.857	117	70-130
m,p-Xylenes	10.00	11.63	116	70-130
o-Xylene	5.000	5.585	112	70-130
Styrene	5.000	4.748	95	70-130
Bromoform	5.000	5.571	111	70-130
1,1,2,2-Tetrachloroethane	5.000	5.347	107	70-130
4-Ethyltoluene	5.000	5.772	115	70-130
1,3,5-Trimethylbenzene	5.000	5.601	112	70-130
1,2,4-Trimethylbenzene	5.000	5.923	118	70-130
1,3-Dichlorobenzene	5.000	5.311	106	70-130
1,4-Dichlorobenzene	5.000	5.385	108	70-130
Benzyl chloride	5.000	5.437	109	70-130
1,2-Dichlorobenzene	5.000	5.394	108	70-130
1,2,4-Trichlorobenzene	5.000	6.052	121	70-130
Hexachlorobutadiene	5.000	6.583 b	132 *	70-130
Naphthalene	5.000	5.626	113	70-130

Surrogate	%REC	Limits
Bromofluorobenzene	95	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17
Diln Fac:	1.000		

Type: BSD Lab ID: QC891014

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Freon 12	5.000	4.786	96	70-130	2	25
Freon 114	5.000	4.930	99	70-130	2	25
Chloromethane	5.000	4.178	84	70-130	3	25
Vinyl Chloride	5.000	5.455	109	70-130	2	25
Bromomethane	5.000	4.388	88	70-130	2	25
Chloroethane	5.000	4.158	83	70-130	1	25
Trichlorofluoromethane	5.000	5.015	100	70-130	1	25
Acrolein	5.000	3.760	75	70-130	6	25
1,1-Dichloroethene	5.000	4.692	94	70-130	1	25
Freon 113	5.000	5.075	102	70-130	2	25
Acetone	5.000	4.952	99	70-130	1	25
Carbon Disulfide	5.000	4.735	95	70-130	1	25
Isopropanol	5.000	4.317	86	70-130	2	25
Methylene Chloride	5.000	4.191	84	70-130	2	25
trans-1,2-Dichloroethene	5.000	5.652	113	70-130	0	25
MTBE	5.000	5.118	102	70-130	1	25
n-Hexane	5.000	4.948	99	70-130	5	25
1,1-Dichloroethane	5.000	4.888	98	70-130	4	25
Vinyl Acetate	5.000	4.657	93	70-130	1	25
cis-1,2-Dichloroethene	5.000	7.650 b	153 *	70-130	1	25
2-Butanone	5.000	4.569	91	70-130	0	25
Ethyl Acetate	5.000	5.648	113	70-130	0	25
Tetrahydrofuran	5.000	5.657	113	70-130	1	25
Chloroform	5.000	5.343	107	70-130	1	25
1,1,1-Trichloroethane	5.000	5.080	102	70-130	1	25
Carbon Tetrachloride	5.000	5.137	103	70-130	1	25
Benzene	5.000	4.940	99	70-130	1	25
1,2-Dichloroethane	5.000	4.936	99	70-130	0	25
n-Heptane	5.000	5.874	117	70-130	1	25
Trichloroethene	5.000	6.212	124	70-130	0	25
1,2-Dichloropropane	5.000	5.532	111	70-130	0	25
Bromodichloromethane	5.000	5.087	102	70-130	0	25

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
cis-1,3-Dichloropropene	5.000	5.055	101	70-130	0	25
4-Methyl-2-Pentanone	5.000	6.076	122	70-130	1	25
Toluene	5.000	7.355 b	147 *	70-130	2	25
trans-1,3-Dichloropropene	5.000	5.125	103	70-130	1	25
1,1,2-Trichloroethane	5.000	5.597	112	70-130	2	25
Tetrachloroethene	5.000	5.612	112	70-130	4	25
2-Hexanone	5.000	6.450	129	70-130	0	25
Dibromochloromethane	5.000	5.162	103	70-130	3	25
1,2-Dibromoethane	5.000	5.160	103	70-130	4	25
Chlorobenzene	5.000	5.441	109	70-130	4	25
Ethylbenzene	5.000	5.672	113	70-130	3	25
m,p-Xylenes	10.00	11.44	114	70-130	2	25
o-Xylene	5.000	5.577	112	70-130	0	25
Styrene	5.000	4.590	92	70-130	3	25
Bromoform	5.000	5.418	108	70-130	3	25
1,1,2,2-Tetrachloroethane	5.000	5.171	103	70-130	3	25
4-Ethyltoluene	5.000	5.610	112	70-130	3	25
1,3,5-Trimethylbenzene	5.000	5.523	110	70-130	1	25
1,2,4-Trimethylbenzene	5.000	5.869	117	70-130	1	25
1,3-Dichlorobenzene	5.000	5.313	106	70-130	0	25
1,4-Dichlorobenzene	5.000	5.206	104	70-130	3	25
Benzyl chloride	5.000	5.328	107	70-130	2	25
1,2-Dichlorobenzene	5.000	5.269	105	70-130	2	25
1,2,4-Trichlorobenzene	5.000	5.962	119	70-130	1	25
Hexachlorobutadiene	5.000	6.547 b	131 *	70-130	1	25
Naphthalene	5.000	5.574	111	70-130	1	25

Surrogate	%REC	Limits
Bromofluorobenzene	96	70-130

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC891015	Diln Fac:	1.000
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	1.7	ND	6.6
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	1.7	ND	4.9
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	20	ND	75

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC891015	Diln Fac:	1.000
Matrix:	Air	Batch#:	249136
Units (V):	ppbv	Analyzed:	06/27/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	0.50	ND	2.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	99	70-130

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17
Diln Fac:	1.000		

Type: BS Lab ID: QC891604

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	5.000	4.445	89	70-130
Freon 114	5.000	4.579	92	70-130
Chloromethane	5.000	4.814	96	70-130
Vinyl Chloride	5.000	4.945	99	70-130
Bromomethane	5.000	4.679	94	70-130
Chloroethane	5.000	4.568	91	70-130
Trichlorofluoromethane	5.000	4.822	96	70-130
Acrolein	5.000	4.873	97	70-130
1,1-Dichloroethene	5.000	5.060	101	70-130
Freon 113	5.000	5.149	103	70-130
Acetone	5.000	4.154	83	70-130
Carbon Disulfide	5.000	4.577	92	70-130
Isopropanol	5.000	4.291	86	70-130
Methylene Chloride	5.000	4.387	88	70-130
trans-1,2-Dichloroethene	5.000	5.347	107	70-130
MTBE	5.000	5.156	103	70-130
n-Hexane	5.000	5.014	100	70-130
1,1-Dichloroethane	5.000	5.014	100	70-130
Vinyl Acetate	5.000	5.253	105	70-130
cis-1,2-Dichloroethene	5.000	5.158	103	70-130
2-Butanone	5.000	4.847	97	70-130
Ethyl Acetate	5.000	4.931	99	70-130
Tetrahydrofuran	5.000	5.399	108	70-130
Chloroform	5.000	4.815	96	70-130
1,1,1-Trichloroethane	5.000	5.076	102	70-130
Carbon Tetrachloride	5.000	4.199	84	70-130
Benzene	5.000	5.357	107	70-130
1,2-Dichloroethane	5.000	5.449	109	70-130
n-Heptane	5.000	5.060	101	70-130
Trichloroethene	5.000	5.305	106	70-130
1,2-Dichloropropane	5.000	5.262	105	70-130
Bromodichloromethane	5.000	5.429	109	70-130
cis-1,3-Dichloropropene	5.000	5.600	112	70-130
4-Methyl-2-Pentanone	5.000	5.942	119	70-130

RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
Toluene	5.000	5.089	102	70-130
trans-1,3-Dichloropropene	5.000	5.081	102	70-130
1,1,2-Trichloroethane	5.000	5.469	109	70-130
Tetrachloroethene	5.000	5.336	107	70-130
2-Hexanone	5.000	5.543	111	70-130
Dibromochloromethane	5.000	5.250	105	70-130
1,2-Dibromoethane	5.000	5.319	106	70-130
Chlorobenzene	5.000	5.268	105	70-130
Ethylbenzene	5.000	5.539	111	70-130
m,p-Xylenes	10.00	11.99	120	70-130
o-Xylene	5.000	6.012	120	70-130
Styrene	5.000	4.409	88	70-130
Bromoform	5.000	5.443	109	70-130
1,1,2,2-Tetrachloroethane	5.000	5.274	105	70-130
4-Ethyltoluene	5.000	6.058	121	70-130
1,3,5-Trimethylbenzene	5.000	6.120	122	70-130
1,2,4-Trimethylbenzene	5.000	6.291	126	70-130
1,3-Dichlorobenzene	5.000	5.546	111	70-130
1,4-Dichlorobenzene	5.000	5.906	118	70-130
Benzyl chloride	5.000	5.444	109	70-130
1,2-Dichlorobenzene	5.000	5.754	115	70-130
1,2,4-Trichlorobenzene	5.000	5.986	120	70-130
Hexachlorobutadiene	5.000	5.495	110	70-130
Naphthalene	5.000	6.063	121	70-130

Surrogate	%REC	Limits
Bromofluorobenzene	108	70-130

RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17
Diln Fac:	1.000		

Type: BSD Lab ID: QC891605

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Freon 12	5.000	4.398	88	70-130	1	25
Freon 114	5.000	4.651	93	70-130	2	25
Chloromethane	5.000	4.805	96	70-130	0	25
Vinyl Chloride	5.000	4.843	97	70-130	2	25
Bromomethane	5.000	4.589	92	70-130	2	25
Chloroethane	5.000	4.687	94	70-130	3	25
Trichlorofluoromethane	5.000	4.737	95	70-130	2	25
Acrolein	5.000	4.747	95	70-130	3	25
1,1-Dichloroethene	5.000	5.122	102	70-130	1	25
Freon 113	5.000	5.056	101	70-130	2	25
Acetone	5.000	4.153	83	70-130	0	25
Carbon Disulfide	5.000	4.498	90	70-130	2	25
Isopropanol	5.000	4.143	83	70-130	4	25
Methylene Chloride	5.000	4.434	89	70-130	1	25
trans-1,2-Dichloroethene	5.000	5.172	103	70-130	3	25
MTBE	5.000	4.913	98	70-130	5	25
n-Hexane	5.000	5.060	101	70-130	1	25
1,1-Dichloroethane	5.000	4.992	100	70-130	0	25
Vinyl Acetate	5.000	5.053	101	70-130	4	25
cis-1,2-Dichloroethene	5.000	5.009	100	70-130	3	25
2-Butanone	5.000	4.589	92	70-130	5	25
Ethyl Acetate	5.000	4.693	94	70-130	5	25
Tetrahydrofuran	5.000	5.344	107	70-130	1	25
Chloroform	5.000	4.761	95	70-130	1	25
1,1,1-Trichloroethane	5.000	5.202	104	70-130	2	25
Carbon Tetrachloride	5.000	4.293	86	70-130	2	25
Benzene	5.000	5.419	108	70-130	1	25
1,2-Dichloroethane	5.000	5.534	111	70-130	2	25
n-Heptane	5.000	4.990	100	70-130	1	25
Trichloroethene	5.000	5.429	109	70-130	2	25
1,2-Dichloropropane	5.000	5.277	106	70-130	0	25
Bromodichloromethane	5.000	5.356	107	70-130	1	25
cis-1,3-Dichloropropene	5.000	5.646	113	70-130	1	25
4-Methyl-2-Pentanone	5.000	5.917	118	70-130	0	25

RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Toluene	5.000	5.099	102	70-130	0	25
trans-1,3-Dichloropropene	5.000	5.196	104	70-130	2	25
1,1,2-Trichloroethane	5.000	5.332	107	70-130	3	25
Tetrachloroethene	5.000	5.392	108	70-130	1	25
2-Hexanone	5.000	5.381	108	70-130	3	25
Dibromochloromethane	5.000	5.409	108	70-130	3	25
1,2-Dibromoethane	5.000	5.301	106	70-130	0	25
Chlorobenzene	5.000	5.162	103	70-130	2	25
Ethylbenzene	5.000	5.392	108	70-130	3	25
m,p-Xylenes	10.00	12.17	122	70-130	1	25
o-Xylene	5.000	5.872	117	70-130	2	25
Styrene	5.000	4.469	89	70-130	1	25
Bromoform	5.000	5.435	109	70-130	0	25
1,1,2,2-Tetrachloroethane	5.000	5.256	105	70-130	0	25
4-Ethyltoluene	5.000	6.417	128	70-130	6	25
1,3,5-Trimethylbenzene	5.000	6.314	126	70-130	3	25
1,2,4-Trimethylbenzene	5.000	6.265	125	70-130	0	25
1,3-Dichlorobenzene	5.000	5.790	116	70-130	4	25
1,4-Dichlorobenzene	5.000	6.034	121	70-130	2	25
Benzyl chloride	5.000	5.240	105	70-130	4	25
1,2-Dichlorobenzene	5.000	5.863	117	70-130	2	25
1,2,4-Trichlorobenzene	5.000	5.975	120	70-130	0	25
Hexachlorobutadiene	5.000	5.704	114	70-130	4	25
Naphthalene	5.000	5.774	115	70-130	5	25

Surrogate	%REC	Limits
Bromofluorobenzene	108	70-130

RPD= Relative Percent Difference
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC891606	Diln Fac:	1.000
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	0.50	ND	2.0
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	0.50	ND	1.5
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	20	ND	75

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC891606	Diln Fac:	1.000
Matrix:	Air	Batch#:	249284
Units (V):	ppbv	Analyzed:	06/30/17

Analyte	Result (V)	RL	Result (M)	RL
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	1.7	ND	7.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	103	70-130

ND= Not Detected
RL= Reporting Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Matrix:	Air	Batch#:	249005
Units:	ppmv	Received:	06/20/17
Units (Mol %):	MOL %	Analyzed:	06/21/17

Field ID: SV-4B
Type: SAMPLE
Lab ID: 290020-001
Diln Fac: 5.110
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	5,100	ND	0.51
Oxygen	65,000	5,100	6.5	0.51

Field ID: SV-4A
Type: SAMPLE
Lab ID: 290020-002
Diln Fac: 2.410
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	2,400	ND	0.24
Oxygen	37,000	2,400	3.7	0.24

Field ID: SV-5
Type: SAMPLE
Lab ID: 290020-003
Diln Fac: 2.280
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	2,300	ND	0.23
Oxygen	170,000	2,300	17	0.23

Field ID: SV-6B
Type: SAMPLE
Lab ID: 290020-004
Diln Fac: 14.15
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	14,000	ND	1.4
Oxygen	97,000	14,000	9.7	1.4

ND= Not Detected
RL= Reporting Limit
Result Mol %= Result in Mole Percent

Curtis & Tompkins, Ltd.

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Matrix:	Air	Batch#:	249005
Units:	ppmv	Received:	06/20/17
Units (Mol %):	MOL %	Analyzed:	06/21/17

Field ID: SV-6A
Type: SAMPLE
Lab ID: 290020-005
Diln Fac: 3.020
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	3,000	ND	0.30
Oxygen	110,000	3,000	11	0.30

Field ID: SV-7
Type: SAMPLE
Lab ID: 290020-006
Diln Fac: 4.040
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	4,000	ND	0.40
Oxygen	54,000	4,000	5.4	0.40

Field ID: SV-10
Type: SAMPLE
Lab ID: 290020-007
Diln Fac: 4.040
Sampled: 06/15/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	4,000	ND	0.40
Oxygen	120,000	4,000	12	0.40

Field ID: SV-8
Type: SAMPLE
Lab ID: 290020-008
Diln Fac: 3.800
Sampled: 06/20/17

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	3,800	ND	0.38
Oxygen	130,000	3,800	13	0.38

ND= Not Detected
RL= Reporting Limit
Result Mol %= Result in Mole Percent

Curtis & Tompkins, Ltd.

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Matrix:	Air	Batch#:	249005
Units:	ppmv	Received:	06/20/17
Units (Mol %):	MOL %	Analyzed:	06/21/17

Field ID: SV-1 Diln Fac: 2.250
Type: SAMPLE Sampled: 06/20/17
Lab ID: 290020-010

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	2,300	ND	0.23
Oxygen	72,000	2,300	7.2	0.23

Field ID: SV-3 Diln Fac: 2.220
Type: SAMPLE Sampled: 06/20/17
Lab ID: 290020-011

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	2,200	ND	0.22
Oxygen	110,000	2,200	11	0.22

Field ID: SV-2 Diln Fac: 1.950
Type: SAMPLE Sampled: 06/20/17
Lab ID: 290020-012

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	2,000	ND	0.20
Oxygen	11,000	2,000	1.1	0.20

Type: BLANK Diln Fac: 1.000
Lab ID: QC890496

Analyte	Result	RL	Result (Mol %)	RL
Helium	ND	1,000	ND	0.10
Oxygen	ND	1,000	ND	0.10

ND= Not Detected
RL= Reporting Limit
Result Mol %= Result in Mole Percent

Curtis & Tompkins, Ltd.

Aromatic / Petroleum Hydrocarbons in Air

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-3
Analyte:	Gasoline Range Organics C6-C12	Batch#:	249020
Matrix:	Air	Received:	06/20/17
Units (V):	ppbv	Analyzed:	06/22/17
Units (M):	ug/m3		

Field ID	Type	Lab ID	Result (V)	RL	MDL	Result (M)	RL	MDL	Diln Fac	Sampled
SV-4B	SAMPLE	290020-001	2,400	260	38	9,700	1,000	160	5.110	06/15/17
SV-4A	SAMPLE	290020-002	4,100	120	18	17,000	490	73	2.410	06/15/17
SV-5	SAMPLE	290020-003	46 J	110	17	190 J	470	69	2.280	06/15/17
SV-6B	SAMPLE	290020-004	4,400	710	110	18,000	2,900	430	14.15	06/15/17
SV-6A	SAMPLE	290020-005	2,700	150	22	11,000	620	92	3.020	06/15/17
SV-7	SAMPLE	290020-006	160 J	200	30	670 J	830	120	4.040	06/15/17
SV-10	SAMPLE	290020-007	170 J	200	30	710 J	830	120	4.040	06/15/17
SV-8	SAMPLE	290020-008	66 J	190	28	270 J	780	120	3.800	06/20/17
SV-1	SAMPLE	290020-010	69 J	110	17	280 J	460	68	2.250	06/20/17
SV-3	SAMPLE	290020-011	1,600	110	17	6,600	450	67	2.220	06/20/17
SV-2	SAMPLE	290020-012	1,300	98	14	5,500	400	59	1.950	06/20/17
	BLANK	QC890561	ND	50	7.4	ND	200	30	1.000	

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit
Result M= Result in mass units
Result V= Result in volume units

Curtis & Tompkins, Ltd.

Batch QC Report

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC890493	Batch#:	249005
Matrix:	Air	Analyzed:	06/21/17
Units:	ppmv		

Analyte	Spiked	Result	%REC	Limits
Helium		NA		
Oxygen	2,000	1,721	86	70-130

NA= Not Analyzed

Curtis & Tompkins, Ltd.

Batch QC Report

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Matrix:	Air	Batch#:	249005
Units:	ppmv	Analyzed:	06/21/17
Diln Fac:	1.000		

Type: BS Lab ID: QC890494

Analyte	Spiked	Result	%REC	Limits
Helium	100,000	79,530	80	70-130
Oxygen		NA		

Type: BSD Lab ID: QC890495

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Helium	100,000	78,440	78	70-130	1	30
Oxygen		NA				

NA= Not Analyzed
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Fixed Gas Analysis

Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	ASTM D1946-90
Field ID:	SV-4B	Units (Mol %):	MOL %
Type:	SDUP	Diln Fac:	5.110
MSS Lab ID:	290020-001	Batch#:	249005
Lab ID:	QC890497	Sampled:	06/15/17
Matrix:	Air	Received:	06/20/17
Units:	ppmv	Analyzed:	06/21/17

Analyte	MSS Result	Result	RL	Result (Mol %)	RL	RPD	Lim
Helium	<5,110	ND	5,110	ND	0.5110	NC	30
Oxygen	65,130	65,040	5,110	6.504	0.5110	0	30

NC= Not Calculated
ND= Not Detected
RL= Reporting Limit
RPD= Relative Percent Difference
Result Mol %= Result in Mole Percent

Curtis & Tompkins, Ltd.

Batch QC Report

Aromatic / Petroleum Hydrocarbons in Air

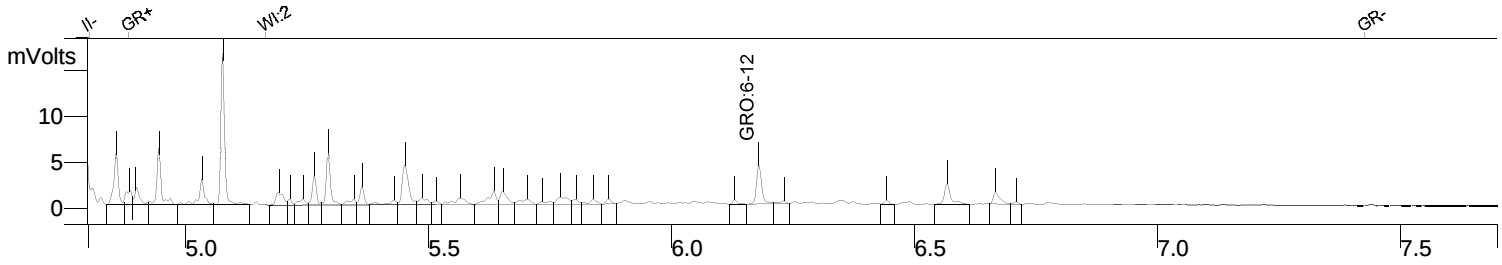
Lab #:	290020	Location:	3101 35th
Client:	Almar Environmental	Prep:	METHOD
Project#:	1078N	Analysis:	EPA TO-3
Analyte:	Gasoline Range Organics C6-C12	Diln Fac:	1.000
Matrix:	Air	Batch#:	249020
Units (V):	ppbv	Analyzed:	06/22/17

Type	Lab ID	Spiked	Result (V)	%REC	Limits	RPD	Lim
BS	QC890559	210.0	184.8	88	70-130		
BSD	QC890560	210.0	171.7	82	70-130	7	25

RPD= Relative Percent Difference
Result V= Result in volume units

GRO by TO-3

Sample ID:	290020-001,249020		
Data File:	c:\varianws\data\062217\173_006.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 11:54:18		
Calculation Date:	06/22/2017 12:04:12		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	5.11x,c00438		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	50009	462.612
		Totals	**50009**	**462.612**

Integration Parameters

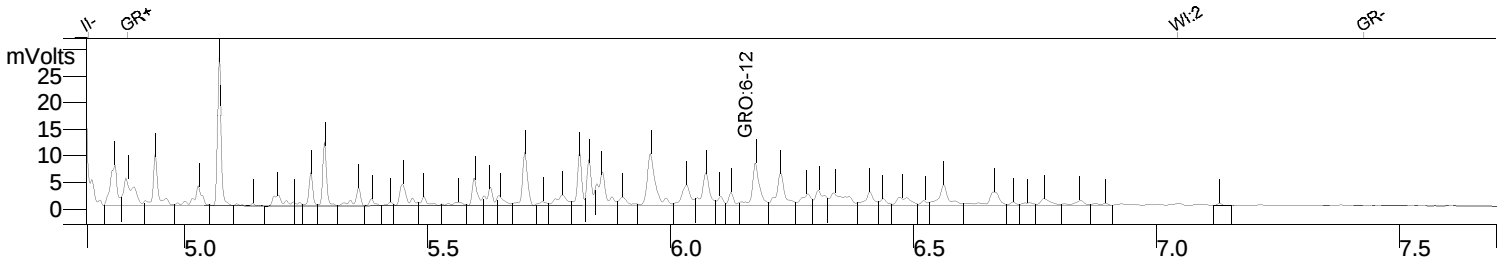
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.165	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-002,249020		
Data File:	c:\varianws\data\062217\173_007.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 12:08:14		
Calculation Date:	06/22/2017 12:18:08		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	2.41x,c00173		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	185628	1717.172
		Totals	**185628**	**1717.172**

Integration Parameters

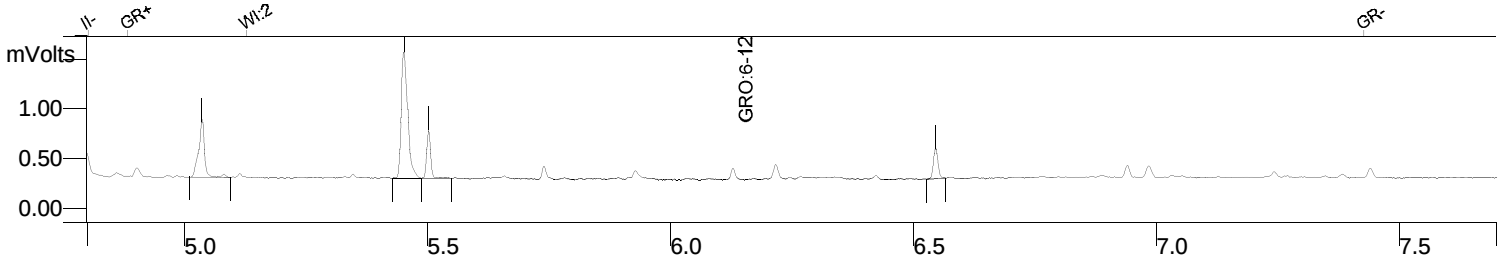
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
7.042	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-003,249020		
Data File:	c:\varianws\data\062217\173_008.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 12:21:26		
Calculation Date:	06/22/2017 12:31:21		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	2.28x,c00075		
Multiplier:	1.000	Divisor:	1.000



Minutes

Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	2194	20.298
		Totals	**2194**	**20.298**

Integration Parameters

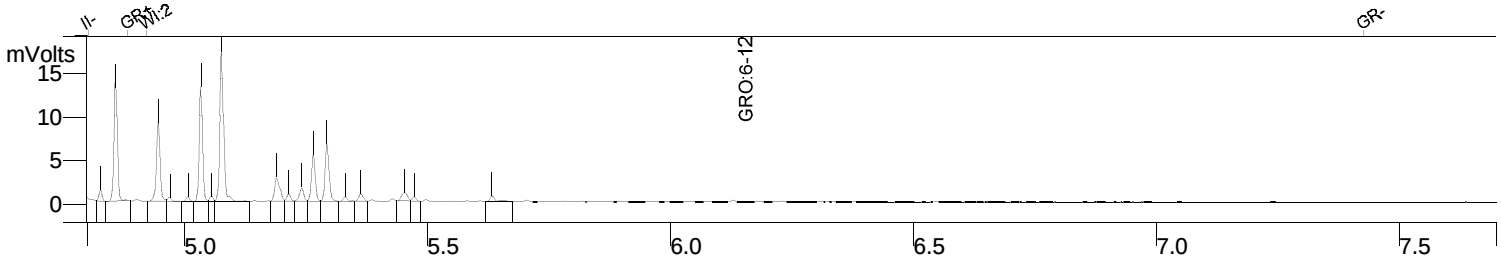
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.128	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-004,249020		
Data File:	c:\varianws\data\062217\173_009.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 12:34:23		
Calculation Date:	06/22/2017 12:44:18		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	14.15x,c00398		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	33767	312.365
		Totals	**33767**	**312.365**

Integration Parameters

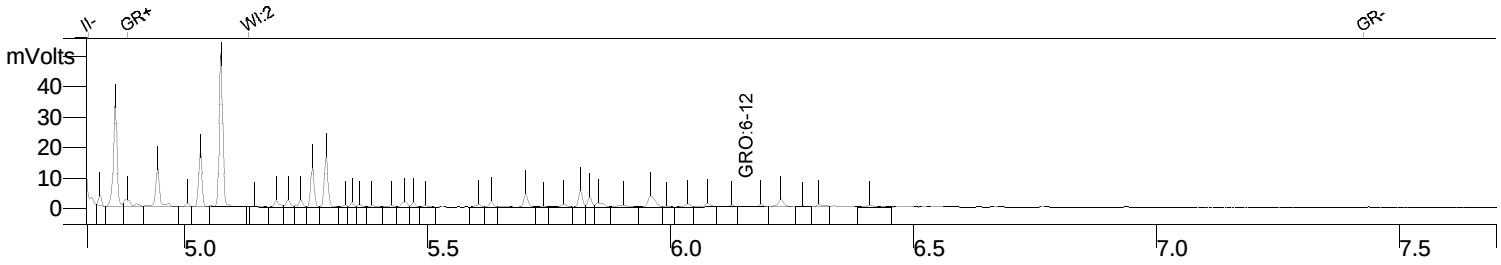
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
4.922	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-005,249020		
Data File:	c:\varianws\data\062217\173_010.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 12:47:24		
Calculation Date:	06/22/2017 12:57:19		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	3.02x,c00067		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	96317	890.993
		Totals	**96317**	**890.993**

Integration Parameters

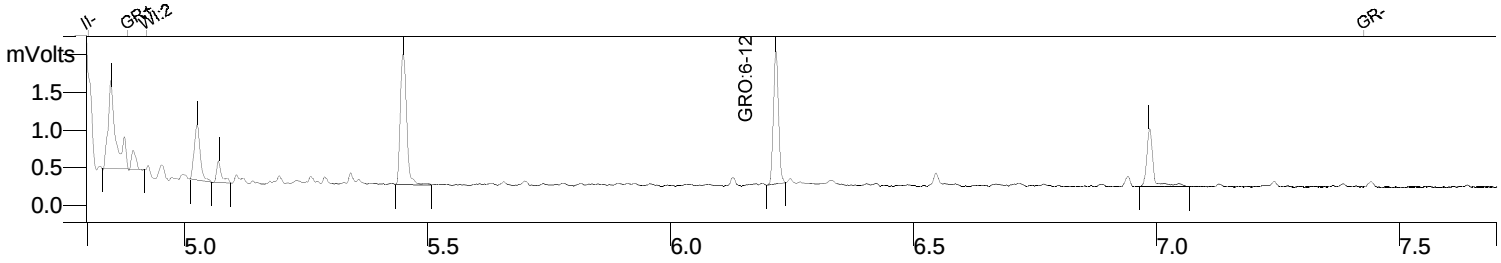
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.132	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-006,249020		
Data File:	c:\varianws\data\062217\173_011.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 12:59:55		
Calculation Date:	06/22/2017 13:09:49		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	4.04x,c00057		
Multiplier:	1.000	Divisor:	1.000



Minutes

Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	4367	40.397
		Totals	**4367**	**40.397**

Integration Parameters

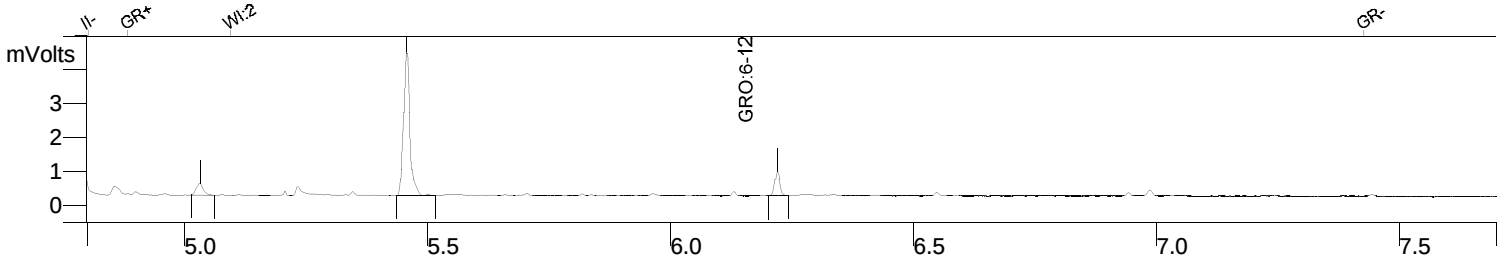
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
4.922	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-007,249020		
Data File:	c:\varianws\data\062217\173_012.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 13:13:01		
Calculation Date:	06/22/2017 13:22:54		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	4.04x,c00245		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	4652	43.033
		Totals	**4652**	**43.033**

Integration Parameters

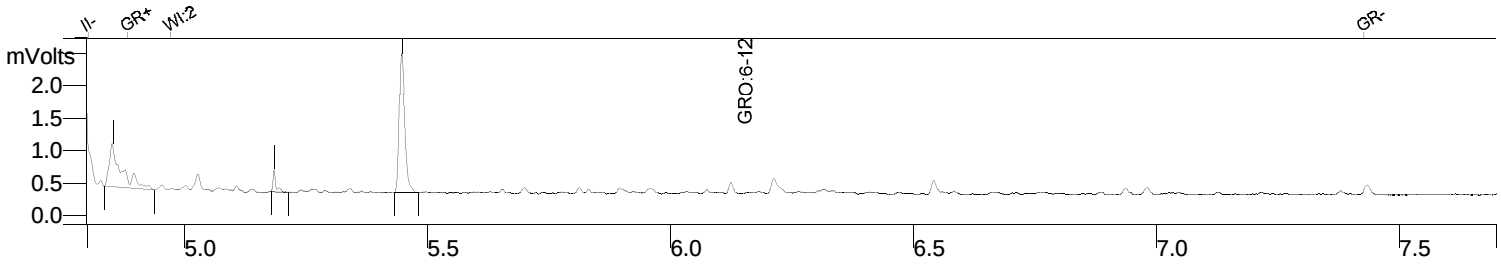
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.095	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-008,249020		
Data File:	c:\varianws\data\062217\173_014.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 13:39:03		
Calculation Date:	06/22/2017 13:48:57		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	3.80x,c00140		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	1876	17.350
		Totals	**1876**	**17.350**

Integration Parameters

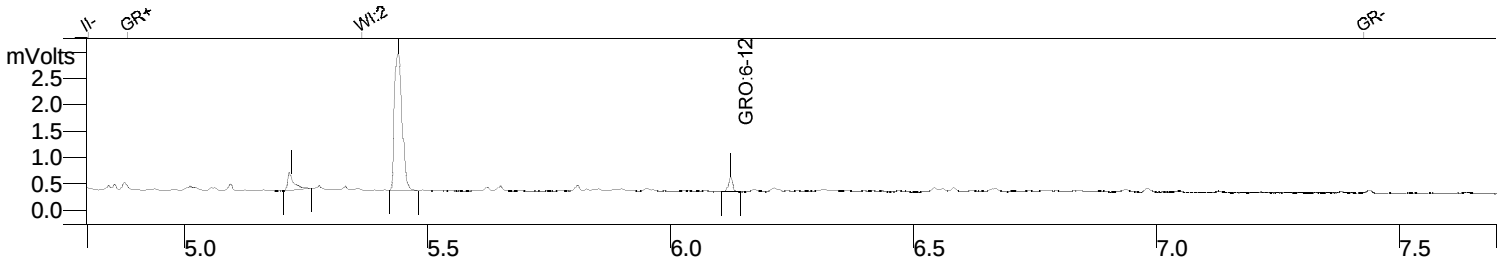
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
4.972	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-010,249020		
Data File:	c:\varianws\data\062217\173_015.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 13:51:47		
Calculation Date:	06/22/2017 14:01:42		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	2.25x,c00341		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	3309	30.607
		Totals	**3309**	**30.607**

Integration Parameters

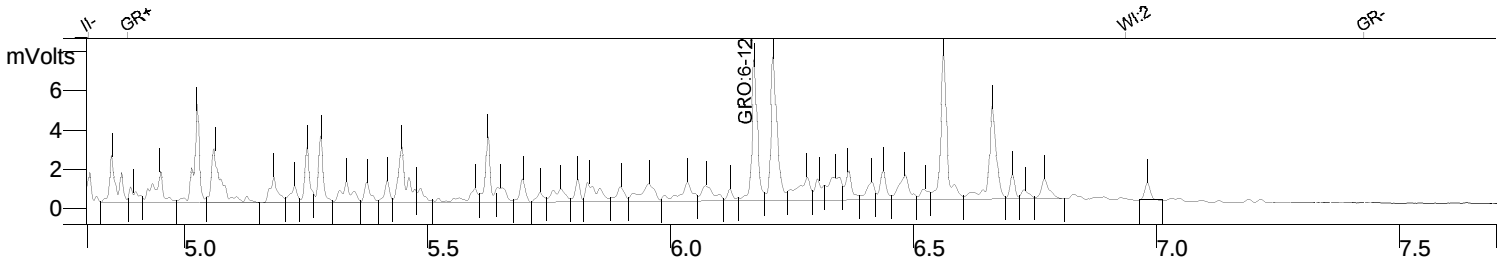
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.365	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-011,249020		
Data File:	c:\varianws\data\062217\173_016.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 14:04:58		
Calculation Date:	06/22/2017 14:14:53		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	2.22x,c00385		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	78691	727.939
		Totals	**78691**	**727.939**

Integration Parameters

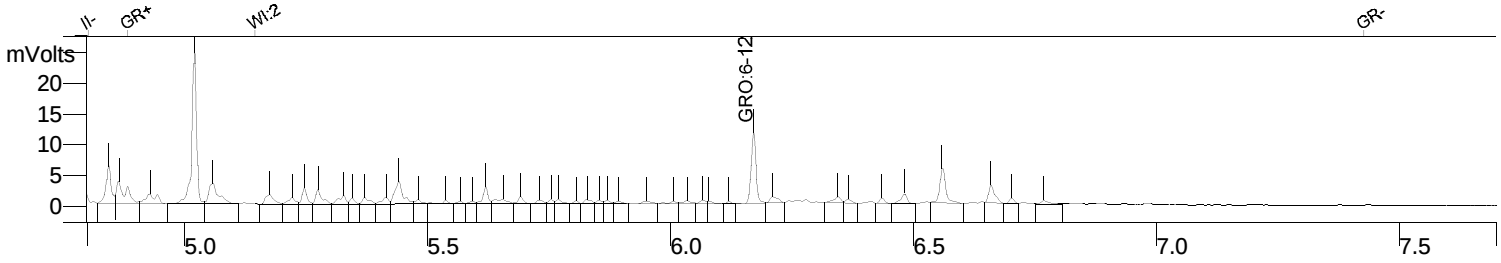
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
6.935	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	290020-012,249020		
Data File:	c:\varianws\data\062217\173_017.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 14:19:11		
Calculation Date:	06/22/2017 14:29:06		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	1.95x,c00069		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	74090	685.377
		Totals	**74090**	**685.377**

Integration Parameters

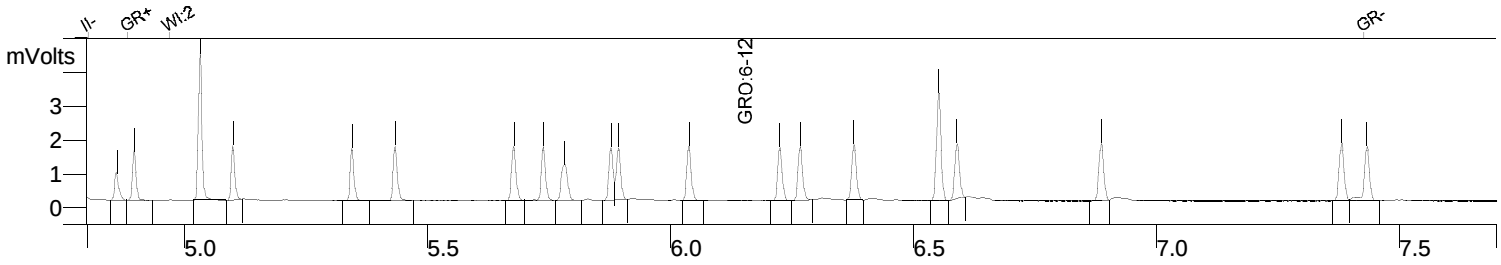
Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.145	WI 2.0 sec
7.426	GR off

GRO by TO-3

Sample ID:	ccv/bs,qc890559		
Data File:	c:\varianws\data\062217\173_002.run		
Sample List:	c:\varianws\062217.smp		
Method:	c:\varianws\methods\to3_042617.mth		
Acquisition Date:	06/22/2017 11:01:56		
Calculation Date:	06/22/2017 11:11:51		
Instrument ID:	GC32	Operator:	TO-15
Injection Notes:	249020,s33372,1x		
Multiplier:	1.000	Divisor:	1.000



Channel: **Front = FID RESULTS**

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	19973	184.762
		Totals	**19973**	**184.762**

Integration Parameters

Initial Tangent %:	0
Initial Peak Width (sec):	4
Initial Peak Reject Value:	50.000
Initial S/N Ratio:	5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
4.968	WI 2.0 sec
7.426	GR off

Date of Report: 06/26/2017

Forrest Cook

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Client Project:	3101 35th Ave
BCL Project:	Soil Samples
BCL Work Order:	1716930
Invoice ID:	B271601

Enclosed are the results of analyses for samples received by the laboratory on 6/21/2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval
Client Service Rep

Stuart Buttram
Technical Director

Table of Contents

BC Laboratories, Inc.

Chain of Custody Form RUSH!

17-16930

*Required Fields

Page 1 of 2

Report To: Client:* Almar Environmental	Project Description:* 3101 35th Ave
Attn:* Forrest Cook	Project Code:* 1078N
Street Address:* 407 Almar Ave.	Sampler (s):* Forrest Cook
City:* Santa Cruz State:* CA Zip:* 95060	
Phone#:* (831) 420 - 7923 Fax#: ( ) -	
Email Address: cook.forrest@gmail.com	
Submission #:	

Sample #	Sample Description	Date	Time	Matrix*	TPHs + VOCs by 8260B	Analysis Requested
-1	SV-4d5.0	6.15.17	7:35	soil	X	
-2	SV-4d10.0		7:40		X	NO!
-3	SV-4d15.0		8:10		X	
-4	SV-5d5.0		8:30		X	
-5	SV-6d5.0		8:40		X	
-6	SV-6d10.0		8:55		X	NO
-7	SV-6d15.0		9:15		X	
-8	SV-7d5.0		9:40		X	
-9	SV-8d5.0		10:35		X	
-10	SV-9d5.0		10:45		X	
-11	JS 6-21					

Billing

Client:* Almar Environmental
Attn:* Forrest Cook
Address:* 407 Almar Avenue
City:* Santa Cruz State:* CA Zip:* 95060
Are there any tests with holding times? less than or equal to 48 hours?
☐ Yes ☑ No
*Standard Turnaround = 10

Notes

5 Day Rush

CHK BY JKR

DISTRIBUTION
SUB-OUT ☐

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:* ☐ 24 Hr Rush ☐ 48 Hr Rush ☐ 3-5 Day Rush ☑ Normal (10 – Days)

Lab TAT Approval: _____ *Additional Charges May Apply

Comments:

☐ MBU Site
☐ CVX RCRA
☐ Geotracker 5 File (CA Default)
☐ Geotracker 2 Field
☐ Other (Specify) _____

Cost Center: _____ Global ID: _____

	Date	Time		Date	Time
1. Relinquished By:	6/20/17	1330	1. Received By:	BCL 6/20/17	1330
2. Relinquished By: BCL VIA OT	6/20/17	1701	2. Received By:	6.21.17	10:10
3. Relinquished By:			3. Received By:		

BC Laboratories, Inc.

Chain of Custody Form RUSH!

17-16930

*Required Fields

Page 1 of 2

Report To: Client:* Almar Environmental	Project Description:* 310 35th Ave	Analysis Requested	Billing
Attn:* Forrest Cook			Client:* Almar Environmental
Street Address:* 407 Almar Ave.	Project Code:* 1078N		Attn:* Forrest Cook
City:* Santa Cruz State:* CA Zip:* 95060			Address:* 407 Almar Avenue
Phone#:* (831) 420 - 7923 Fax#: ( ) -	Sampler (s):* Forrest Cook		City:* Santa Cruz State:* CA Zip:* 95060
Email Address: cook.forrest@gmail.com			Are there any tests with holding times? less than or equal to 48 hours? ☐ Yes ☑ No
Submission #:			*Standard Turnaround = 10

Sample #	Sample Description	Date	Time	Matrix*	TPHg+VOCs by 8260	Notes
-12	SV-1d5.0 -11	6.15.17	10:50	soil	X	
-13	SV-2d5.0 -12		11:00		X	
-14	SV-3d5.0 -13		11:05		X	5 DAY rush
11 6-21						

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:* ☐ 24 Hr Rush ☐ 48 Hr Rush ☐ 3(5 Day Rush) ☑ Normal (10 – Days)

Lab TAT Approval: _____ *Additional Charges May Apply

Comments:

☐ MBU Site
☐ CVX RCRA
☐ Geotracker 5 File (CA Default)
☐ Geotracker 2 File
☐ Other (Specify) _____

Cost Center: _____ **Global ID:** _____

	Date	Time		Date	Time
1. Relinquished By:	6/20/17	1330	1.Received By: BCL	6/20/17	1330
2. Relinquished By: BCL via DT	6/20/17	1701	2.Received By:		
3. Relinquished By:			3.Received By:	6.21.17	10:10

BC Laboratories, Inc. 4100 Atlas Court – Bakersfield CA 93308 (661) 327 – 4911 Fax: (661) 327 – 1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1716930 Page 3 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 17-16930

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☐ Other ☐ (Specify)_____	Other ☐ (Specify)_____	W / S

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☐ No ☐ All samples containers intact? Yes ☐ No ☐ Description(s) match COC? Yes ☐ No ☐

COC Received ☒ YES ☐ NO

Emissivity: .95 Container: Jar Thermometer ID: 208 Date/Time: 6-21-17

Temperature: (A) 0.1 °C / (C) 0.3 °C Analyst Init: 10:10

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE	A	A	A	A	A	A	A	A	A	A
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:_____

Sample Numbering Completed By: _____ Date/Time: 6-21-17 1510

A = Actual / C = Corrected

Rev 21 05/23/2016

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Chain of Custody and Cooler Receipt Form for 1716930 Page 4 of 4

BC LABORATORIES INC. **COOLER RECEIPT FORM** Page 2 Of 2

Submission #: 17-16930

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☑ Hand Delivery ☐	Ice Chest ☑ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☐ Other ☐ (Specify)_____	Other ☐ (Specify)_____	W / S

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: .95 Container: 2PL Thermometer ID: 208 Date/Time: 6.21.17

Temperature: (A) 0.1 °C / (C) 0.3 °C Analyst Init: JD 10:10

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	-1	-2	-3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE	A	A 6/21/17	A							
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:_____

Sample Numbering Completed By: JKS Date/Time: 6-21-17 1515

A = Actual / C = Corrected

Rev 21 05/23/2016

[S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMRECrev 20]

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1716930-01	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 07:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-4d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-02	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 07:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-4d10.0	**Lab Matrix:**	Solids
	Sampled By:	ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-03	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 08:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-4d15.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-04	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 08:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-5d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-05	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 08:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-6d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1716930-06	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 08:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-6d10.0	**Lab Matrix:**	Solids
	Sampled By:	ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-07	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 09:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-6d15.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-08	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 09:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-7d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-09	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 10:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-8d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-10	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 10:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-9d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1716930-11	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 10:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-1d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-12	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 11:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-2d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	
1716930-13	**COC Number:**	---	**Receive Date:**	06/21/2017 10:10
	Project Number:	3101 35th Ave	**Sampling Date:**	06/15/2017 11:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SV-3d5.0	**Lab Matrix:**	Solids
	Sampled By:	Forrest Cook of ALSC	**Sample Type:**	Soil
			Field Residual Chlorine:	
			Field Nitrate:	
			Field Flow Rate:	

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-01 | **Client Sample Name:** 3101 35th Ave, SV-4d5.0, 6/15/2017 7:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-01 | **Client Sample Name:** 3101 35th Ave, SV-4d5.0, 6/15/2017 7:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	103	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)		EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-01 | **Client Sample Name:** 3101 35th Ave, SV-4d5.0, 6/15/2017 7:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	104	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 02:58	JMS	MS-V3	1	B[F2264

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-03 | **Client Sample Name:** 3101 35th Ave, SV-4d15.0, 6/15/2017 8:10:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-03 | **Client Sample Name:** 3101 35th Ave, SV-4d15.0, 6/15/2017 8:10:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	111	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)		EPA-8260B			1

Almar Environmental
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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-03 | **Client Sample Name:** 3101 35th Ave, SV-4d15.0, 6/15/2017 8:10:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	107	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 03:44	JMS	MS-V3	1	B[F2264

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-04 | **Client Sample Name:** 3101 35th Ave, SV-5d5.0, 6/15/2017 8:30:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-04 | **Client Sample Name:** 3101 35th Ave, SV-5d5.0, 6/15/2017 8:30:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	105	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-04 | **Client Sample Name:** 3101 35th Ave, SV-5d5.0, 6/15/2017 8:30:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	106	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 04:07	JMS	MS-V3	1	B[F2264

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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-05 | **Client Sample Name:** 3101 35th Ave, SV-6d5.0, 6/15/2017 8:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-05 | **Client Sample Name:** 3101 35th Ave, SV-6d5.0, 6/15/2017 8:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	109	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-05 | **Client Sample Name:** 3101 35th Ave, SV-6d5.0, 6/15/2017 8:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	105	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 04:30	JMS	MS-V3	1	B[F2264

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-07 | **Client Sample Name:** 3101 35th Ave, SV-6d15.0, 6/15/2017 9:15:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Reported: 06/26/2017 17:17
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Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-07 | **Client Sample Name:** 3101 35th Ave, SV-6d15.0, 6/15/2017 9:15:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	112	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-07 | **Client Sample Name:** 3101 35th Ave, SV-6d15.0, 6/15/2017 9:15:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	107	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/24/17	06/26/17 05:16	JMS	MS-V3	1	B[F1891

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-08 | **Client Sample Name:** 3101 35th Ave, SV-7d5.0, 6/15/2017 9:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Project Number: 3101 35th Ave
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Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-08 | **Client Sample Name:** 3101 35th Ave, SV-7d5.0, 6/15/2017 9:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	109	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-08 | **Client Sample Name:** 3101 35th Ave, SV-7d5.0, 6/15/2017 9:40:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	99.8	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 05:39	JMS	MS-V3	1	B[F2264

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-09 | **Client Sample Name:** 3101 35th Ave, SV-8d5.0, 6/15/2017 10:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-09 | **Client Sample Name:** 3101 35th Ave, SV-8d5.0, 6/15/2017 10:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	108	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)		EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-09 | **Client Sample Name:** 3101 35th Ave, SV-8d5.0, 6/15/2017 10:35:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	104	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 06:03	JMS	MS-V3	1	B[F2264

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-10 | **Client Sample Name:** 3101 35th Ave, SV-9d5.0, 6/15/2017 10:45:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-10 | **Client Sample Name:** 3101 35th Ave, SV-9d5.0, 6/15/2017 10:45:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	112	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-10 | **Client Sample Name:** 3101 35th Ave, SV-9d5.0, 6/15/2017 10:45:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	106	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 06:26	JMS	MS-V3	1	B[F2264

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407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-11 | **Client Sample Name:** 3101 35th Ave, SV-1d5.0, 6/15/2017 10:50:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-11 | **Client Sample Name:** 3101 35th Ave, SV-1d5.0, 6/15/2017 10:50:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	109	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	81 - 117 (LCL - UCL)		EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-11 | **Client Sample Name:** 3101 35th Ave, SV-1d5.0, 6/15/2017 10:50:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	105	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 06:49	JMS	MS-V3	1	B[F2264

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407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-12 | **Client Sample Name:** 3101 35th Ave, SV-2d5.0, 6/15/2017 11:00:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-12 | **Client Sample Name:** 3101 35th Ave, SV-2d5.0, 6/15/2017 11:00:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	112	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)		EPA-8260B			1

Almar Environmental
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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-12 | **Client Sample Name:** 3101 35th Ave, SV-2d5.0, 6/15/2017 11:00:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	105	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 07:12	JMS	MS-V3	1	B[F2264

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-13 | **Client Sample Name:** 3101 35th Ave, SV-3d5.0, 6/15/2017 11:05:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Bromochloromethane	ND	mg/kg	0.0050	0.00092	EPA-8260B			1
Bromodichloromethane	ND	mg/kg	0.0050	0.00084	EPA-8260B			1
Bromoform	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Bromomethane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
n-Butylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
sec-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
tert-Butylbenzene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Carbon tetrachloride	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Chlorobenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Chloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Chloroform	ND	mg/kg	0.0050	0.00063	EPA-8260B			1
Chloromethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
2-Chlorotoluene	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
4-Chlorotoluene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
Dibromochloromethane	ND	mg/kg	0.0050	0.00099	EPA-8260B			1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
1,2-Dibromoethane	ND	mg/kg	0.0050	0.0010	EPA-8260B			1
Dibromomethane	ND	mg/kg	0.0050	0.0018	EPA-8260B			1
1,2-Dichlorobenzene	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichlorobenzene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,4-Dichlorobenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Dichlorodifluoromethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloroethane	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloroethane	ND	mg/kg	0.0050	0.00085	EPA-8260B			1
1,1-Dichloroethene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,2-Dichloropropane	ND	mg/kg	0.0050	0.00081	EPA-8260B			1
1,3-Dichloropropane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
2,2-Dichloropropane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,1-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1

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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-13 | **Client Sample Name:** 3101 35th Ave, SV-3d5.0, 6/15/2017 11:05:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Ethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Hexachlorobutadiene	ND	mg/kg	0.0050	0.0017	EPA-8260B			1
Isopropylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
p-Isopropyltoluene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Methylene chloride	ND	mg/kg	0.010	0.0024	EPA-8260B			1
Methyl t-butyl ether	ND	mg/kg	0.0050	0.00050	EPA-8260B			1
Naphthalene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
n-Propylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Styrene	ND	mg/kg	0.0050	0.0014	EPA-8260B			1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
Tetrachloroethene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
Toluene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	0.0021	EPA-8260B			1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	0.0020	EPA-8260B			1
1,1,1-Trichloroethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,1,2-Trichloroethane	ND	mg/kg	0.0050	0.00077	EPA-8260B			1
Trichloroethene	ND	mg/kg	0.0050	0.0011	EPA-8260B	2040		1
Trichlorofluoromethane	ND	mg/kg	0.0050	0.0011	EPA-8260B			1
1,2,3-Trichloropropane	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.0013	EPA-8260B			1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.0015	EPA-8260B			1
Vinyl chloride	ND	mg/kg	0.0050	0.0016	EPA-8260B			1
Total Xylenes	ND	mg/kg	0.010	0.0034	EPA-8260B			1
Total Trihalomethanes	ND	mg/kg	0.020	0.0032	EPA-8260B			1
p- & m-Xylenes	ND	mg/kg	0.0050	0.0022	EPA-8260B			1
o-Xylene	ND	mg/kg	0.0050	0.0012	EPA-8260B			1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	0.020	Luft-GC/MS			1
1,2-Dichloroethane-d4 (Surrogate)	110	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	81 - 117 (LCL - UCL)		EPA-8260B			1

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Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1716930-13 | **Client Sample Name:** 3101 35th Ave, SV-3d5.0, 6/15/2017 11:05:00AM, Forrest Cook

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
4-Bromofluorobenzene (Surrogate)	104	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/25/17	06/26/17 07:35	JMS	MS-V3	1	B[F2264

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B[F1891						
Benzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Bromobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Bromochloromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00092	
Bromodichloromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00084	
Bromoform	B[F1891-BLK1	ND	mg/kg	0.0050	0.0015	
Bromomethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0016	
n-Butylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0015	
sec-Butylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
tert-Butylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
Carbon tetrachloride	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
Chlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Chloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
Chloroform	B[F1891-BLK1	ND	mg/kg	0.0050	0.00063	
Chloromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
2-Chlorotoluene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0018	
4-Chlorotoluene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
Dibromochloromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00099	
1,2-Dibromo-3-chloropropane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0017	
1,2-Dibromoethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0010	
Dibromomethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0018	
1,2-Dichlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.00081	
1,3-Dichlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
1,4-Dichlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0015	
Dichlorodifluoromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
1,1-Dichloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
1,2-Dichloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00085	
1,1-Dichloroethene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
cis-1,2-Dichloroethene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
trans-1,2-Dichloroethene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
1,2-Dichloropropane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00081	
1,3-Dichloropropane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
2,2-Dichloropropane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
1,1-Dichloropropene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
cis-1,3-Dichloropropene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	

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Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B[F1891						
trans-1,3-Dichloropropene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
Ethylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0015	
Hexachlorobutadiene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0017	
Isopropylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
p-Isopropyltoluene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Methylene chloride	B[F1891-BLK1	ND	mg/kg	0.010	0.0024	
Methyl t-butyl ether	B[F1891-BLK1	ND	mg/kg	0.0050	0.00050	
Naphthalene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
n-Propylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Styrene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0014	
1,1,1,2-Tetrachloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
1,1,2,2-Tetrachloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
Tetrachloroethene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
Toluene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
1,2,3-Trichlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0021	
1,2,4-Trichlorobenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0020	
1,1,1-Trichloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
1,1,2-Trichloroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.00077	
Trichloroethene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
Trichlorofluoromethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0011	
1,2,3-Trichloropropane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0016	
1,1,2-Trichloro-1,2,2-trifluoroethane	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
1,2,4-Trimethylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0013	
1,3,5-Trimethylbenzene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0015	
Vinyl chloride	B[F1891-BLK1	ND	mg/kg	0.0050	0.0016	
Total Xylenes	B[F1891-BLK1	ND	mg/kg	0.010	0.0034	
Total Trihalomethanes	B[F1891-BLK1	ND	mg/kg	0.020	0.0032	
p- & m-Xylenes	B[F1891-BLK1	ND	mg/kg	0.0050	0.0022	
o-Xylene	B[F1891-BLK1	ND	mg/kg	0.0050	0.0012	
Total Purgeable Petroleum Hydrocarbons	B[F1891-BLK1	ND	mg/kg	0.20	0.020	
1,2-Dichloroethane-d4 (Surrogate)	**B[F1891-BLK1**	**101**	%	**70 - 121 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**B[F1891-BLK1**	**97.4**	%	**81 - 117 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**B[F1891-BLK1**	**91.8**	%	**74 - 121 (LCL - UCL)**		

Almar Environmental
407 Almar Avenue
Santa Cruz, CA 95060

Reported: 06/26/2017 17:17
Project: Soil Samples
Project Number: 3101 35th Ave
Project Manager: Forrest Cook

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B[F2264						
Benzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Bromobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Bromochloromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00092	
Bromodichloromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00084	
Bromoform	B[F2264-BLK1	ND	mg/kg	0.0050	0.0015	
Bromomethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0016	
n-Butylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0015	
sec-Butylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
tert-Butylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
Carbon tetrachloride	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
Chlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Chloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
Chloroform	B[F2264-BLK1	ND	mg/kg	0.0050	0.00063	
Chloromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
2-Chlorotoluene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0018	
4-Chlorotoluene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
Dibromochloromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00099	
1,2-Dibromo-3-chloropropane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0017	
1,2-Dibromoethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0010	
Dibromomethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0018	
1,2-Dichlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.00081	
1,3-Dichlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
1,4-Dichlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0015	
Dichlorodifluoromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
1,1-Dichloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
1,2-Dichloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00085	
1,1-Dichloroethene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
cis-1,2-Dichloroethene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
trans-1,2-Dichloroethene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
1,2-Dichloropropane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00081	
1,3-Dichloropropane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
2,2-Dichloropropane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
1,1-Dichloropropene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
cis-1,3-Dichloropropene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	

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Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B[F2264						
trans-1,3-Dichloropropene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
Ethylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0015	
Hexachlorobutadiene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0017	
Isopropylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
p-Isopropyltoluene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Methylene chloride	B[F2264-BLK1	ND	mg/kg	0.010	0.0024	
Methyl t-butyl ether	B[F2264-BLK1	ND	mg/kg	0.0050	0.00050	
Naphthalene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
n-Propylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Styrene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0014	
1,1,1,2-Tetrachloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
1,1,2,2-Tetrachloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
Tetrachloroethene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
Toluene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
1,2,3-Trichlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0021	
1,2,4-Trichlorobenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0020	
1,1,1-Trichloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
1,1,2-Trichloroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.00077	
Trichloroethene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
Trichlorofluoromethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0011	
1,2,3-Trichloropropane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0016	
1,1,2-Trichloro-1,2,2-trifluoroethane	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
1,2,4-Trimethylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0013	
1,3,5-Trimethylbenzene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0015	
Vinyl chloride	B[F2264-BLK1	ND	mg/kg	0.0050	0.0016	
Total Xylenes	B[F2264-BLK1	ND	mg/kg	0.010	0.0034	
Total Trihalomethanes	B[F2264-BLK1	ND	mg/kg	0.020	0.0032	
p- & m-Xylenes	B[F2264-BLK1	ND	mg/kg	0.0050	0.0022	
o-Xylene	B[F2264-BLK1	ND	mg/kg	0.0050	0.0012	
Total Purgeable Petroleum Hydrocarbons	B[F2264-BLK1	ND	mg/kg	0.20	0.020	
1,2-Dichloroethane-d4 (Surrogate)	**B[F2264-BLK1**	**106**	%	**70 - 121 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**B[F2264-BLK1**	**102**	%	**81 - 117 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**B[F2264-BLK1**	**105**	%	**74 - 121 (LCL - UCL)**		

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Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B[F1891										
Benzene	B[F1891-BS1	LCS	0.11570	0.12500	mg/kg	92.6		70 - 130		
Bromodichloromethane	B[F1891-BS1	LCS	0.10588	0.12500	mg/kg	84.7		70 - 130		
Chlorobenzene	B[F1891-BS1	LCS	0.11345	0.12500	mg/kg	90.8		70 - 130		
Chloroethane	B[F1891-BS1	LCS	0.096650	0.12500	mg/kg	77.3		70 - 130		
1,4-Dichlorobenzene	B[F1891-BS1	LCS	0.10674	0.12500	mg/kg	85.4		70 - 130		
1,1-Dichloroethane	B[F1891-BS1	LCS	0.11044	0.12500	mg/kg	88.4		70 - 130		
1,1-Dichloroethene	B[F1891-BS1	LCS	0.10755	0.12500	mg/kg	86.0		70 - 130		
Toluene	B[F1891-BS1	LCS	0.10475	0.12500	mg/kg	83.8		70 - 130		
Trichloroethene	B[F1891-BS1	LCS	0.10359	0.12500	mg/kg	82.9		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B[F1891-BS1	LCS	0.051690	0.050000	mg/kg	103		70 - 121		
Toluene-d8 (Surrogate)	B[F1891-BS1	LCS	0.047620	0.050000	mg/kg	95.2		81 - 117		
4-Bromofluorobenzene (Surrogate)	B[F1891-BS1	LCS	0.047520	0.050000	mg/kg	95.0		74 - 121		
QC Batch ID: B[F2264										
Benzene	B[F2264-BS1	LCS	0.12222	0.12500	mg/kg	97.8		70 - 130		
Bromodichloromethane	B[F2264-BS1	LCS	0.13448	0.12500	mg/kg	108		70 - 130		
Chlorobenzene	B[F2264-BS1	LCS	0.12862	0.12500	mg/kg	103		70 - 130		
Chloroethane	B[F2264-BS1	LCS	0.16012	0.12500	mg/kg	128		70 - 130		
1,4-Dichlorobenzene	B[F2264-BS1	LCS	0.13053	0.12500	mg/kg	104		70 - 130		
1,1-Dichloroethane	B[F2264-BS1	LCS	0.12391	0.12500	mg/kg	99.1		70 - 130		
1,1-Dichloroethene	B[F2264-BS1	LCS	0.12266	0.12500	mg/kg	98.1		70 - 130		
Toluene	B[F2264-BS1	LCS	0.12911	0.12500	mg/kg	103		70 - 130		
Trichloroethene	B[F2264-BS1	LCS	0.13167	0.12500	mg/kg	105		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B[F2264-BS1	LCS	0.050780	0.050000	mg/kg	102		70 - 121		
Toluene-d8 (Surrogate)	B[F2264-BS1	LCS	0.050420	0.050000	mg/kg	101		81 - 117		
4-Bromofluorobenzene (Surrogate)	B[F2264-BS1	LCS	0.050700	0.050000	mg/kg	101		74 - 121		

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Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B[F1891	Used client sample: N										
Benzene	MS	1713532-76	ND	0.11574	0.12500	mg/kg		92.6		70 - 130	
	MSD	1713532-76	ND	0.10315	0.12500	mg/kg	11.5	82.5	20	70 - 130	
Bromodichloromethane	MS	1713532-76	ND	0.11062	0.12500	mg/kg		88.5		70 - 130	
	MSD	1713532-76	ND	0.10579	0.12500	mg/kg	4.5	84.6	20	70 - 130	
Chlorobenzene	MS	1713532-76	ND	0.11687	0.12500	mg/kg		93.5		70 - 130	
	MSD	1713532-76	ND	0.11400	0.12500	mg/kg	2.5	91.2	20	70 - 130	
Chloroethane	MS	1713532-76	ND	0.10852	0.12500	mg/kg		86.8		70 - 130	
	MSD	1713532-76	ND	0.098960	0.12500	mg/kg	9.2	79.2	20	70 - 130	
1,4-Dichlorobenzene	MS	1713532-76	ND	0.11197	0.12500	mg/kg		89.6		70 - 130	
	MSD	1713532-76	ND	0.11211	0.12500	mg/kg	0.1	89.7	20	70 - 130	
1,1-Dichloroethane	MS	1713532-76	ND	0.11300	0.12500	mg/kg		90.4		70 - 130	
	MSD	1713532-76	ND	0.10507	0.12500	mg/kg	7.3	84.1	20	70 - 130	
1,1-Dichloroethene	MS	1713532-76	ND	0.11657	0.12500	mg/kg		93.3		70 - 130	
	MSD	1713532-76	ND	0.10531	0.12500	mg/kg	10.1	84.2	20	70 - 130	
Toluene	MS	1713532-76	ND	0.11203	0.12500	mg/kg		89.6		70 - 130	
	MSD	1713532-76	ND	0.10770	0.12500	mg/kg	3.9	86.2	20	70 - 130	
Trichloroethene	MS	1713532-76	ND	0.10899	0.12500	mg/kg		87.2		70 - 130	
	MSD	1713532-76	ND	0.10342	0.12500	mg/kg	5.2	82.7	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1713532-76	ND	0.049030	0.050000	mg/kg		98.1		70 - 121	
	MSD	1713532-76	ND	0.045740	0.050000	mg/kg	6.9	91.5		70 - 121	
Toluene-d8 (Surrogate)	MS	1713532-76	ND	0.050640	0.050000	mg/kg		101		81 - 117	
	MSD	1713532-76	ND	0.049260	0.050000	mg/kg	2.8	98.5		81 - 117	
4-Bromofluorobenzene (Surrogate)	MS	1713532-76	ND	0.047410	0.050000	mg/kg		94.8		74 - 121	
	MSD	1713532-76	ND	0.050190	0.050000	mg/kg	5.7	100		74 - 121	
QC Batch ID: B[F2264	Used client sample: N										
Benzene	MS	1713532-79	ND	0.12314	0.12500	mg/kg		98.5		70 - 130	
	MSD	1713532-79	ND	0.11630	0.12500	mg/kg	5.7	93.0	20	70 - 130	
Bromodichloromethane	MS	1713532-79	ND	0.13822	0.12500	mg/kg		111		70 - 130	
	MSD	1713532-79	ND	0.13300	0.12500	mg/kg	3.8	106	20	70 - 130	
Chlorobenzene	MS	1713532-79	ND	0.13295	0.12500	mg/kg		106		70 - 130	
	MSD	1713532-79	ND	0.13325	0.12500	mg/kg	0.2	107	20	70 - 130	
Chloroethane	MS	**1713532-79**	**ND**	**0.17179**	**0.12500**	**mg/kg**		**137**		**70 - 130**	**Q03**
	MSD	**1713532-79**	**ND**	**0.16347**	**0.12500**	**mg/kg**	**5.0**	**131**	**20**	**70 - 130**	**Q03**
1,4-Dichlorobenzene	MS	1713532-79	ND	0.13720	0.12500	mg/kg		110		70 - 130	
	MSD	1713532-79	ND	0.13791	0.12500	mg/kg	0.5	110	20	70 - 130	
1,1-Dichloroethane	MS	1713532-79	ND	0.12728	0.12500	mg/kg		102		70 - 130	
	MSD	1713532-79	ND	0.12177	0.12500	mg/kg	4.4	97.4	20	70 - 130	

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Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B[F2264	Used client sample: N										
1,1-Dichloroethene	MS	1713532-79	ND	0.12617	0.12500	mg/kg		101		70 - 130	
	MSD	1713532-79	ND	0.11841	0.12500	mg/kg	6.3	94.7	20	70 - 130	
Toluene	MS	1713532-79	ND	0.13910	0.12500	mg/kg		111		70 - 130	
	MSD	1713532-79	ND	0.13523	0.12500	mg/kg	2.8	108	20	70 - 130	
Trichloroethene	MS	1713532-79	ND	0.13743	0.12500	mg/kg		110		70 - 130	
	MSD	1713532-79	ND	0.13469	0.12500	mg/kg	2.0	108	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1713532-79	ND	0.049970	0.050000	mg/kg		99.9		70 - 121	
	MSD	1713532-79	ND	0.048640	0.050000	mg/kg	2.7	97.3		70 - 121	
Toluene-d8 (Surrogate)	MS	1713532-79	ND	0.051770	0.050000	mg/kg		104		81 - 117	
	MSD	1713532-79	ND	0.052030	0.050000	mg/kg	0.5	104		81 - 117	
4-Bromofluorobenzene (Surrogate)	MS	1713532-79	ND	0.051810	0.050000	mg/kg		104		74 - 121	
	MSD	1713532-79	ND	0.053720	0.050000	mg/kg	3.6	107		74 - 121	

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Notes And Definitions

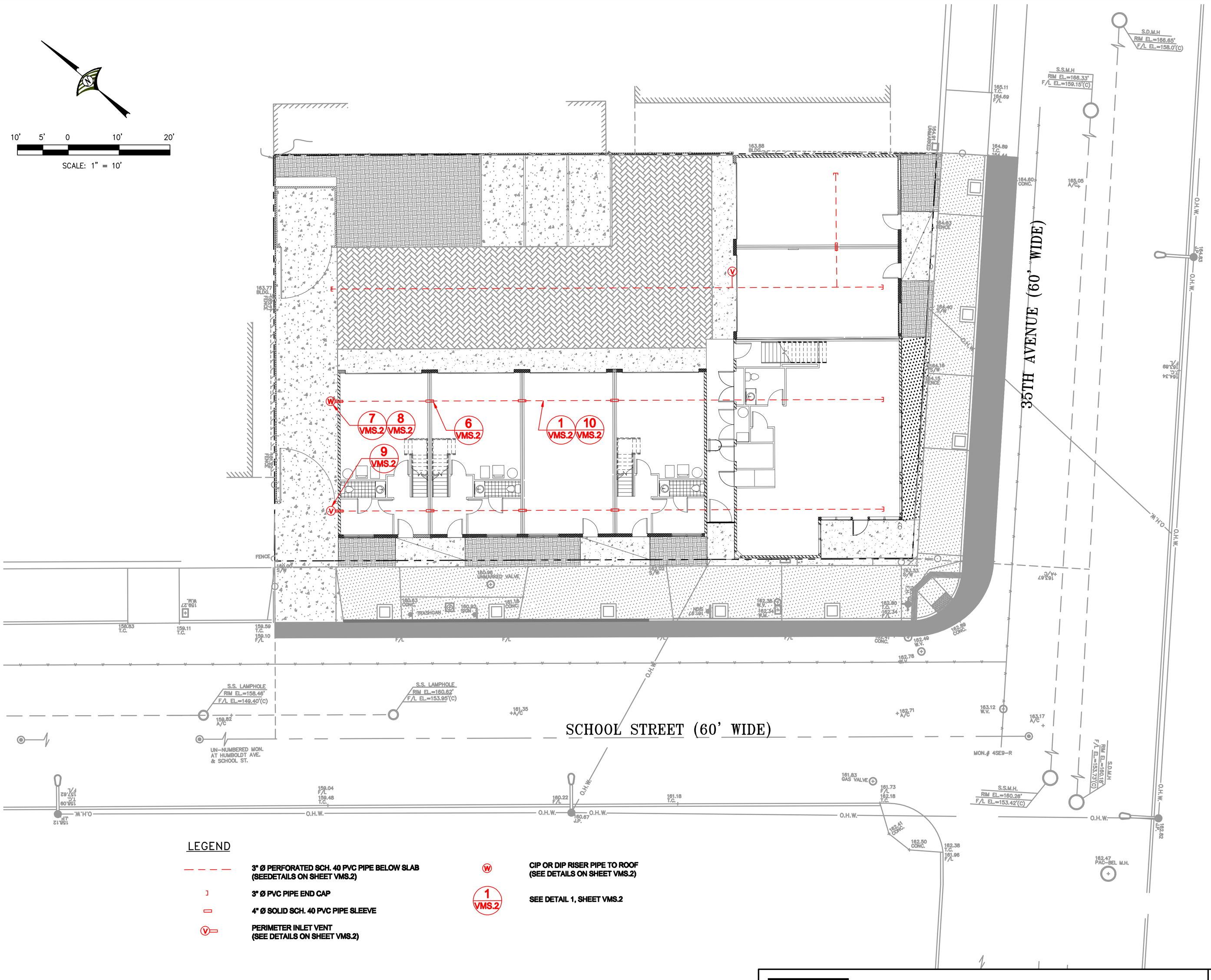
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
Q03	Matrix spike recovery(s) is(are) not within the control limits.

APPENDIX G

VMS Drawings

10' 5' 0 10' 20'

SCALE: 1" = 10'



LEGEND

3" Ø PERFORATED SCH. 40 PVC PIPE BELOW SLAB (SEEDETAILS ON SHEET VMS.2)	CIP OR DIP RISER PIPE TO ROOF (SEE DETAILS ON SHEET VMS.2)
3" Ø PVC PIPE END CAP	SEE DETAIL 1, SHEET VMS.2
4" Ø SOLID SCH. 40 PVC PIPE SLEEVE	
PERIMETER INLET VENT (SEE DETAILS ON SHEET VMS.2)	

REGISTERED PROFESSIONAL ENGINEER ALAN MARK WALDMAN No. 38905 Exp. 3/31/19 CIVIL STATE OF CALIFORNIA

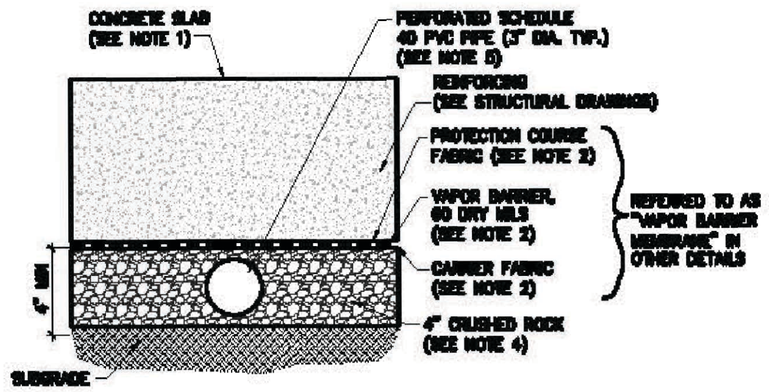
Pacific Engineering & Construction, Inc.
Consulting Engineers & Contractors
470 3RD Street, Suite 105, San Francisco, CA 94107
Phone/Fax: (415) 974-1863 Cell phone: (415) 516-6545
email: amwaldman@sbcglobal.net

VAPOR MITIGATION PLAN
35TH @ SCHOOL, OAKLAND, CA 94619
HSIEH PROPERTY: APN 028-0951-012-01

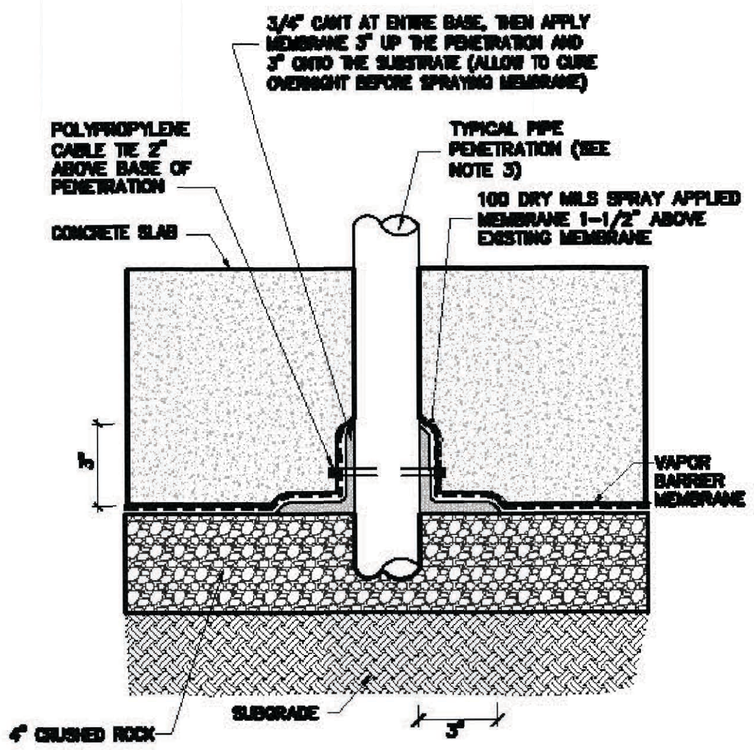
SHEET VMS.1

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
AMA		AMW	AUGUST, 2017	

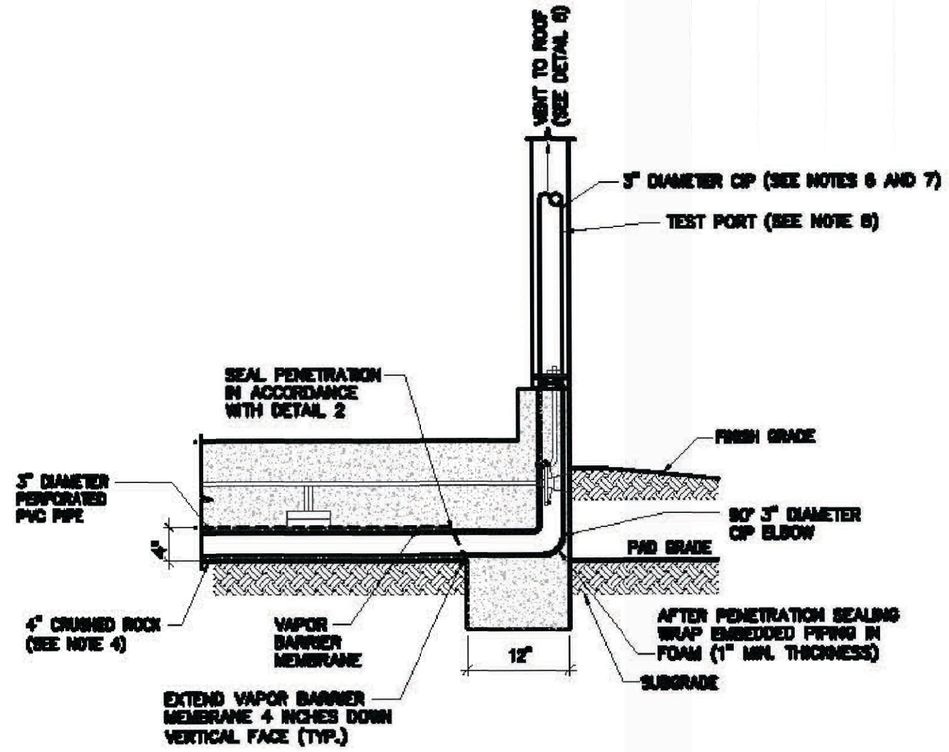
P:\Pacific Engineering\2017-PEC\2017 Projects\Hsieh Property - 35th and School Road\2017 CAD DESIGN\VENTING SYSTEM_CIVIL.dwg 8/06/17 5:28pm Alison Aylsworth



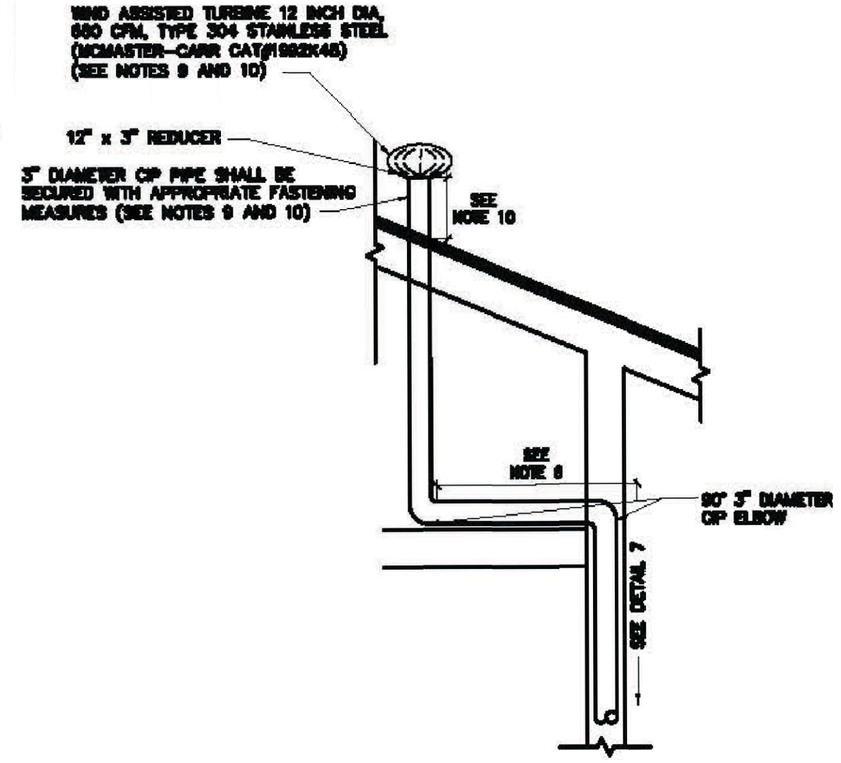
1 TYPICAL VAPOR MITIGATION SYSTEM CROSS-SECTION
NOT TO SCALE



2 TYPICAL SEALING OF ALL PENETRATIONS THROUGH CONCRETE SLAB
NOT TO SCALE



7 HORIZONTAL-TO-VERITICAL RISER TRANSITION AT EXTERIOR WALL
NOT TO SCALE



8 RISER TRANSITION INTO ATTIC AT EXTERIOR WALL AND VENT TO ROOF
NOT TO SCALE

9 TYPICAL PERIMETER INLET VENT
NOT TO SCALE

10 DETAIL OF PERFORATED PIPE PATTERN
NOT TO SCALE

11 TYPICAL SOIL GAS CUT-OFF BARRIER IN UTILITY TRENCH
NOT TO SCALE

12 TYPICAL INTERIOR AND EXTERIOR CONDUIT SEAL
NOT TO SCALE

6 TYPICAL MEMBRANE AT AT BRG/SHEAR WALL
NOT TO SCALE

NOTES:

1. ALL LOCATIONS AND DIMENSIONS OF BUILDING SLABS, FOOTINGS, SHEAR WALLS, AND GRADE BEAMS TO BE CONFIRMED WITH STRUCTURAL DETAILS.
2. THE 60 MIL SPRAY APPLIED VAPOR BARRIER MEMBRANE SHALL BE INSTALLED ACCORDING TO MEMBRANE MANUFACTURER'S SPECIFICATIONS AND QA/QC REQUIREMENTS (E.G., COUPON AND SMOKE TESTING) BY A MANUFACTURER APPROVED APPLICATOR. CARRIER FABRIC AND PROTECTION COURSE FABRIC SHALL BE PER MEMBRANE MANUFACTURER'S SPECIFICATIONS.
3. SLAB PENETRATIONS SHALL NOT BE IN CONTACT WITH AN ADJACENT PENETRATION THAT WOULD PREVENT PROPER SEALING OF THE PENETRATION CIRCUMFERENCE. SLAB PENETRATIONS SHALL BE PREPARED AND STUBBED PRIOR TO MEMBRANE INSTALLATION.
4. CRUSHED ROCK LAYER SHALL BE 1/4" X 3/4" (100% PASSING 1-INCH; 90% PASSING ¼-INCH; 10% MAXIMUM PASSING #4). SURFACE OF CRUSHED ROCK LAYER SHALL BE SMOOTH ROLLED PRIOR TO APPLICATION OF THE CARRIER FABRIC. CRUSHED ROCK LAYER SHALL BE 4" MINIMUM.
5. HORIZONTAL COLLECTION PIPE SHALL BE 3" DIAMETER SCH. 40 PVC. INDICATED SECTIONS OF HORIZONTAL COLLECTION PIPE SHALL BE PERFORATED WITH 5/8 INCH DIAMETER HOLES, THREE HOLES ACROSS THE UPPER ONE-THIRD OF THE PIPE, EVERY THREE INCHES ALONG THE PERFORATED SECTION. AN ADDITIONAL 5/8 INCH DIAMETER HOLE SHALL BE DRILLED ON THE UNDERSIDE OF THE PIPE AT LEAST EVERY TWO LINEAR FEET ALONG THE PERFORATED SECTION TO ALLOW WATER, IF ANY, TO DRAIN FROM THE PIPE.
6. VERTICAL RISER PIPES SHALL BE SUPPORTED AT THE PIPE CHASE WALLS, AS NEEDED. PIPE MUST BE 3" DIAMETER CAST IRON PIPE (CIP). MINOR (< 5 FEET) JOGS IN THE VERTICAL RISER AT ATTIC LEVEL ARE ACCEPTABLE.
7. VERTICAL RISER PIPES SHALL BE LABELED AS "CONTAINS VAPORS; DO NOT BREAK OR CUT."
8. TEST PORTS SHALL BE INSTALLED ON VERTICAL RISER PIPES, 36 INCHES ABOVE GROUND LEVEL, FOR AIR SAMPLING. TEST PORT SHALL BE BRASS TUBE FITTING, BORED-THROUGH MALE CONNECTOR, WITH 1/4-INCH TUBE OD 1/4-INCH MALE NPT (SWAGELOCK® B-400-1-4ST OR EQUIVALENT). TEST PORT CAP SHALL BE BRASS CAP FOR 1/4-INCH OD TUBING (SWAGELOCK® B-400-C OR EQUIVALENT). A LOCKABLE ACCESS HATCH AT THE EXTERIOR WALL FACE SHALL BE INSTALLED TO ALLOW ACCESS TO SAMPLING PORTS.
9. THE TOP OF THE VERTICAL RISER PIPES (W) SHALL EXTEND TO AN ELEVATION OF 1 FOOT ABOVE THE ROOF AND ALLOW THE WIND TURBINES TO OPERATE FREELY; THEY SHALL BE LOCATED A MINIMUM OF 15 FEET AWAY FROM FRESH AIR INTAKES FOR BUILDING'S HVAC SYSTEM OR OTHER OPENINGS (OPENING VENTS, WINDOWS, DOORS, ETC.), AND SHALL BE SUPPORTED BY STRUTS OR SWAPS ATTACHED TO AN ADJACENT STRUCTURAL ELEMENT.
10. THE WIND-ASSISTED TURBINE ON TOP OF THE 3 INCH PVC RISER SHALL BE 12 INCH DIAMETER, 680 CFM, TYPE 304 STAINLESS STEEL (MCMASTER-CARR CAT#1892K48) AND SHALL BE SECURED TO THE TOP OF THE RISER. TURBINE SHALL BE ADAPTED TO FIT A 3 INCH PIPE. TURBINE SHALL BE INSTALLED TO RESIST WIND, SEISMIC, AND OTHER LOADS, AS NEEDED.
11. PERIMETER VENTS SHALL BE EQUIPPED WITH A RAIN CAP THAT WILL ALLOW FRESH AIR FLOW INTO THE INLET BUT NOT RAIN OR FOREIGN OBJECTS TO FALL INTO THE VENT.
12. MECHANICAL, ELECTRICAL, AND PLUMBING CONDUIT PENETRATIONS IN THE WALLS ON THE LOWEST LEVEL OF THE STRUCTURE SHALL BE SEALED AIR-TIGHT USING APPROPRIATE SEALING PRODUCT (FIRE CAULKING OR SIMILAR SEALANT).

REGISTERED PROFESSIONAL ENGINEER ALAN MARK WALDMAN No. 38905 Exp. 3/31/19 CIVIL STATE OF CALIFORNIA

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HSIEH PROPERTY: APN 028-0951-012-01

SHEET VMS.2

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
AMA		AMW	AUGUST, 2017	