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Alameda County
Environmental Health

Ms. Barbara Jakub, P.G.
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Gritmit Auto Repair and Service, 1970 Seminary Boulevard, Oakland, California
(Fuel Leak Case No. RO0000413)


Dear Ms. Jakub:

Stratus Environmental, Inc. (Stratus) has recently prepared a report entitled *Site Investigation and Quarterly Status Report and Proposed Amendments to Offsite Subsurface Investigation* on my behalf. The report was prepared in regards to Alameda County Fuel Leak Case No. RO0000413, for Gritmit Auto Repair and Service, 1970 Seminary Boulevard, Oakland, California.

I have reviewed a copy of this report, sent to me by representatives of Stratus, and "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".

If you have any questions, please contact me via electronic mail at peggy.h.garcia@sbcglobal.net, or my daughter Angel LaMarca at angelcpt@gmail.com.

Sincerely,


Ms. Peggy Garcia, Trustee, Gritmit Family Trust

cc: Angel LaMarca



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

January 3, 2012
Project No. 2090-1970-01

Ms. Barbara Jakub, P.G.
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(via Geotracker & Alameda County FTP site)

Re: Site Investigation and Quarterly Status Report and Proposed Amendments to Offsite Subsurface Investigation, Former Gritmit Auto Repair and Service, 1970 Seminary Boulevard, Oakland, California (Fuel Leak Case No. RO0000413)

Dear Ms. Jakub:

On behalf of the Gritmit Family Trust, Stratus Environmental, Inc. (Stratus) has prepared this report for the Gritmit Auto Repair and Service underground storage tank (UST) fuel leak case (the Site), located at 1970 Seminary Boulevard, Oakland, California (see Figures 1 through 3). Alameda County Environmental Health Department (ACEHD) currently oversees an environmental case at the subject property relating to the historical release of petroleum hydrocarbons to the subsurface. On August 22, 2011, Stratus prepared and submitted a document titled *Revised Interim Remedial Action Plan and Work Plan Addendum* for the subject property. This scope of work included a proposal to conduct both onsite and offsite assessment of soil and groundwater conditions, and perform a soil vapor survey of the shallow subsurface. In a letter dated October 13, 2011, ACEHD personnel approved, with comments, the scope of work proposed in the August 2011 document.

Stratus recently directed the completion of an onsite cone penetrometer test (CPT) investigation with associated laser induced fluorescence (LIF) profiling and soil and groundwater sampling. Based on the findings of this work, and verbal discussions with ACEHD personnel on December 8, 2011, Stratus is recommending changes to the offsite subsurface assessment work scope proposed in the August 2011 document. This report presents the findings of the CPT investigation, and uses data collected from this work as a justification for proposed modifications for the upcoming offsite subsurface assessment work. This report also documents the installation of six onsite soil vapor sampling wells installed during the same site mobilization, and collection of soil vapor samples from these wells. Also included in this report is information regarding ongoing free product removal activities performed during the fourth quarter 2011 from one well at the subject property.

SCOPE OF WORK

The objectives of the recently completed site assessment work were to:

- Further assess soil types in the upper 60 feet of the subsurface.
- Utilize LIF technology to assess a portion of the site for petroleum hydrocarbon impact near a monitoring well (MW-1) where free product has historically been observed.
- Assess the vertical extent of petroleum hydrocarbon impact to soil and groundwater.
- Evaluate concentrations of contaminants in shallow soil vapor.

To accomplish these objectives, Stratus implemented the following work activities:

- Advanced four (4) CPT borings (CPT-1, CPT-2, CPT-3, and CPT-3A) to depths ranging from approximately 42.5 to 54 feet below ground surface (bgs). LIF profiling was conducted at each boring location (although LIF data from boring CPT-3 was lost due to a computer malfunction).
- Collected soil and groundwater samples from borings situated adjacent to boring CPT-1.
- Installed three (3) soil vapor sampling wells (SV-1A through SV-3A) to a depth of approximately 5.5 feet bgs.
- Installed three (3) soil vapor sampling wells (SV-1B through SV-3B) to depths of 7, 9, and 9 feet, respectively.
- Collected soil vapor samples from five of the six wells (Well SV-2B could not be sampled due to excessive moisture)

Prior to initiating work activities, drilling permits were obtained from Alameda County Public Works Agency (ACPWA). Underground Service Alert, the property owner, the property tenant, ACPWA, and ACEHD were notified 48 hours prior to beginning work activities. Copies of the drilling permits are provided in Appendix A. All work was conducted under the direct supervision of a State of California Registered Professional Geologist.

CPT/LIF Investigation

A Stratus geologist was on-site to oversee Gregg In Situ, Inc. (C-57 #656407) of Martinez, California, complete CPT testing, LIF profiling, and direct push soil and groundwater sampling on December 1 and 2, 2011. Given the space limitations of the subject property,

a track mounted limited access CPT rig was mobilized to the site to perform CPT/LIF and soil/groundwater sampling work. The CPT method consists of advancing a cone-tipped cylindrical probe (1.7 inches in diameter) into the ground while simultaneously measuring the resistance to penetration. The CPT method estimates soil lithology by comparing the force (cone bearing pressure) required to advance the probe (Q_t) to the friction ratio (R_f) [R_f equals sleeve friction (F_s) divided by the probe tip load times the penetration pore pressure (U_d)]. Graphical diagrams illustrating CPT interpretations of soil types are presented in Appendix B. Computer generated CPT logs were plotted in the field to provide a graphical log of subsurface soil lithology. CPT tests were performed in accordance with American Society of Testing and Materials (ASTM) Method D3441. The CPT instrument incorporated an LIF screening tool. Information regarding the LIF profiling technique and equipment from Gregg In-Situ, Inc. is included in Appendix B. The approximate locations of the CPT/LIF borings, and nearby sampling borings, are included on Figure 2. Following advancement to total depth, each borehole was backfilled with neat cement to surface grade.

Soil and groundwater samples were collected from separate borings, directly adjacent to boring CPT-1. The water sample was collected using a Hydropunch™ sampler, and soil samples were collected using a piston sampler equipped with two 6-inch length by 1.25-inch width stainless steel sleeves. The water sample was collected by pushing the Hydropunch™ sampler, with 2-inch diameter steel rods, to the bottom of the borehole. The CPT operator subsequently pulled up on the steel rods, exposing a PVC screen at the desired sampling interval. The groundwater sample was collected by lowering a metal bailer within the steel rods. Groundwater was collected in the bailer and placed in appropriately preserved glass sample containers (voas and a 1-liter amber bottle). Only one water sample was collected during this phase of investigation, from a depth between approximately 46 and 49 feet bgs (advancement refusal prevented deeper penetration). Stratus also attempted to collect a groundwater sample between 28 and 31 feet bgs, however this attempt failed due to dry conditions. Soil samples were collected by driving the piston sampler into native soil at the desired 12-inch length sampling interval. Following collection, the soil and groundwater samples were placed in an ice-chilled cooler. Each sample was appropriately labeled and identified on a chain-of-custody form.

Soil Vapor Well Installations

The borings used to construct wells SV-1A through SV-3A and SV-1B were advanced using hand tools; borings SV-2B and SV-3B were advanced using a direct push drilling rig. Boring SV-1B could not be advanced using the direct push rig due to access constraints; refusal to hand digging was encountered at 7 feet bgs and thus well SV-1B was constructed to a shallower depth than wells SV-2B and SV-3B. During the advancement of borings SV-1B, SV-2B, and SV-3B, the Stratus representative logged

soil types encountered using the Unified Soil Classification System. Boring logs documenting the soil types observed are provided in Appendix C. The boring logs have been uploaded to the State of California's Geotracker database and confirmation sheets documenting these uploads are provided in Appendix F.

The soil vapor wells were constructed using a 6-inch length mesh soil vapor probe (supplied by Geoprobe), situated from approximately 4.5 to 5 feet bgs (wells SV-1A through SV-3A), 6.25 to 6.75 feet bgs (well SV-1B), and 8.25 to 8.75 feet bgs (wells SV-2B and SV-3B). Teflon tubing (0.25 inches in diameter) was attached to each soil gas probe, and extended to about 2-feet above surface grade. A filter pack of Lonestar™ #2/12 sand was placed around the soil vapor probes. Bentonite was subsequently placed on top of the sand filter pack to provide a transition seal, and neat cement was placed within the remaining annular space. A traffic rated vault box was placed over each well, and a swagelok valve was placed on the end of the Teflon tubing. Well construction details and for each of the six soil vapor wells are provided in Appendix C. Stratus and Gregg In-Situ also prepared and submitted Department of Water Resources (DWR) well completion forms to ACPWA.

Soil Vapor Sampling

Stratus returned to the site on December 13, 2011 to collect soil vapor samples from the newly completed soil vapor wells. Prior to sampling, an expendable 6-liter SUMMA™ canister was used to purge ambient air situated inside of the sand filter pack and the Teflon tubing connected to the soil vapor wells. Following purging of this ambient air, a separate 1-liter SUMMA™ canister was used to collect each soil vapor sample. The sample collection SUMMA™ canisters were filled at a regulated maximum flow rate of 200 milliliters per minute (ml/min). Where conditions allowed, the SUMMA™ canisters were filled at a flow rate between 100 and 200 ml/min. A sample could not be collected from well SV-2B due to excessive moisture. During sample collection from the other five wells, a tracer gas of 1,1-difluoroethane (1,1-DFA) was intermittently applied (sprayed from a canister) around the outside of the sample train in order to assess potential leakage during the sample collection procedure. Following retention of the samples, the SUMMA™ canisters were stored at ambient air temperature, using proper chain-of-custody procedures, until delivered to the analytical laboratory for chemical analysis. Field data sheets documenting activities completed during soil vapor sampling work are provided in Appendix D.

Analytical Methods

Soil and groundwater samples were forwarded to Alpha Analytical, Inc., under proper chain-of-custody, for chemical analysis. Portions of the soil samples were forwarded from Alpha Analytical, Inc. to California Laboratory Services, Inc. for analysis of one

constituent (oil and grease). The soil and groundwater samples were analyzed for gasoline range organics (GRO) using EPA Method SW8015B, and for volatile organic compounds (including benzene, toluene, ethylbenzene, total xylenes [BTEX], and fuel oxygenates) using EPA Method SW8260B. The groundwater sample was additionally analyzed for oil and grease using EPA Method 1664A, and the soil samples were additionally analyzed for oil and grease using APHA/EPA Methods.

Soil vapor samples were forwarded to Air Toxics Limited, under proper chain-of-custody, for analysis. The soil vapor samples were tested for gasoline range organics and volatile organic compounds, including total petroleum hydrocarbons as gasoline (TPHG), BTEX compounds, fuel oxygenates, fuel additives, and the leak detection gas 1,1-DFA using EPA Method TO-15 Modified, and for oxygen, carbon dioxide, and methane using ASTM Method D-1946 Modified. Soil vapor sample results are summarized in Table 1.

Certified analytical reports and chain-of-custody records for the soil, groundwater, and soil vapor samples are provided in Appendix E. Analytical results have been uploaded to the State of California's Geotracker database and documentation pertaining to these data uploads are provided in Appendix F.

Surveying

ACEHD has previously requested that all site monitoring wells be surveyed to the North American Vertical Datum of 1988 (NAVD-88) standard, instead of the NAVD-29 standard that was previously used at the site. Following completion of the offsite investigation, surveying work will be performed so that upcoming borings may also be surveyed during the same surveying contractor mobilization, in addition to surveying of soil vapor wells and soil borings completed during the onsite phase of investigation.

Free Product Removal

On September 29, 2011, Stratus installed a SoakEaseTM absorbent sock within well MW-1 as a method of conducting passive removal of free product from within the well. On December 28, 2011, Stratus removed the absorbent sock from the well, placed the recovered free product within a 55-gallon steel drum, and installed a replacement absorbent sock within the well. A field data sheet documenting the product removal work is provided in Appendix G. Free product removal activities will continue into the first quarter 2012.

Findings

Additional Site Geologic Information

For the purposes of this investigation, the CPT borings are most useful for evaluating soil types at deeper depths than were advanced during previous investigations. CPT data generally show that coarser grained soil of variable thicknesses are observed between approximately 24 and 33 feet bgs. Finer grained soils, with thin interbedded coarser grained strata, were logged between about 31 and 52 feet bgs (CPT-1), 27 to 43 feet bgs (CPT-2), and 30 to 46 feet bgs (CPT-3A). These finer grained soils appear to segregate 'first water bearing strata' from lower water bearing material. Sand and gravel were encountered at the base of each CPT boring. These coarser grained soils (likely gravel) caused refusal to the CPT boring advancement with Gregg In-Situ's limited access CPT rig. Only the upper few feet of these sand/gravel strata were penetrated, and the thickness of this water bearing strata ('lower water bearing zone') is not known.

LIF Data and Assessment of Free Product

Between 1990 and 2011, depth to groundwater has fluctuated between approximately 11.8 and 21.5 feet bgs in well MW-1, which historically has contained free product. On December 1, 2011, Stratus measured depth to groundwater levels beneath the site at approximately 20 feet bgs, which is within historical fluctuation ranges.

A review of the LIF data collected from boring CPT-1, which was advanced within a few feet of well MW-1, indicates that the highest concentrations of petroleum hydrocarbons were detected by LIF between approximately 23 and 28 feet bgs, which is below the 21-year historical water level fluctuation range near MW-1. Given this observation, free product present in well MW-1 may be originating within soil horizons present between approximately 23 and 28 feet bgs, and rising to float above the static water level within the well casing. The highest LIF instrument response for petroleum hydrocarbons is generally correlative with coarser grained soil (sand/gravel) logged by CPT a short distance below static water table levels.

The LIF instrument detected hydrocarbons at approximately 24 feet bgs at boring CPT-2 and approximately 23 to 26 feet bgs at CPT-3A. However, a much lower level of instrument response was reported at these locations relative to CPT-1. Given the much lower instrument response to petroleum hydrocarbons at borings CPT-2 and CPT-3A, it is our interpretation that free product does not extend laterally to these areas of the site. In our opinion, the LIF is likely detecting dissolved petroleum hydrocarbons at these depths and locations within the limits of the known contaminant plume, and not free product. If this is the case, free product only extends a very short distance laterally from the MW-1/CPT-1 area.

Soil Analytical Results

Soil samples were collected near boring CPT-1 at depths of approximately 35, 40, and 45 feet bgs, with the intention of delineating the vertical extent of impact to soil. Analytical testing of these samples indicated that petroleum hydrocarbon, fuel oxygenate, and VOC concentrations were below laboratory instrument detection levels. Given this observation, it appears that the vertical extent of soil impact onsite is sufficiently characterized. These results also appear to validate the absence of petroleum hydrocarbons in the LIF profiling below about 30 feet bgs.

Groundwater Analytical Results

GRO, tetrachloroethene (PCE), and trichloroethene (TCE) were detected in the groundwater sample collected between 46 and 49 feet bgs at concentrations of 86 micrograms per liter ($\mu\text{g/L}$), 49 $\mu\text{g/L}$, and 9.0 $\mu\text{g/L}$, respectively, and are summarized on the table below:

<u>Sample ID</u>	<u>GRO ($\mu\text{g/L}$)</u>	<u>PCE ($\mu\text{g/L}$)</u>	<u>TCE ($\mu\text{g/L}$)</u>
CPT-1-49	86	49	9.0

Concentrations of BTEX, fuel oxygenates, oil and grease, and other VOCs were reported below laboratory instrument detection levels.

Based on the findings of the groundwater sample collected from CPT-1 (and potentially validated by the LIF profiling), vertical transport of petroleum hydrocarbons in the dissolved phase beyond the upper water bearing strata appears to be minimal. At this time, it is unknown whether the PCE and TCE impact to groundwater originated from the site, or results from an offsite source(s) and thus related to a more regional groundwater condition.

Soil Vapor Analytical Results

Toluene, PCE, and chlorobenzene were detected in each of the shallow soil vapor samples, at concentrations ranging from 8.6 micrograms per cubic meter ($\mu\text{g/m}^3$) to 32 $\mu\text{g/m}^3$, 78 $\mu\text{g/m}^3$ to 660 $\mu\text{g/m}^3$, and 8.9 $\mu\text{g/m}^3$ to 30 $\mu\text{g/m}^3$, respectively. GRO/TPHG (10,000 $\mu\text{g/m}^3$), benzene (6.7 $\mu\text{g/m}^3$), total xylenes (5.8 $\mu\text{g/m}^3$), acetone (17 $\mu\text{g/m}^3$), methylene chloride (3.1 $\mu\text{g/m}^3$), carbon disulfide (72 $\mu\text{g/m}^3$), and 2,2,4-trimethylpentane (480 $\mu\text{g/m}^3$) were also detected in sample SV-3B. Methane was not detected in any of the samples. The leak detection gas 1,1-DFA was not reported in any of the samples.

For preliminary screening purposes, Stratus compared analytical results of the soil vapor samples to both the commercial and residential values listed in RWQCB-SF's *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final – November 2007 (revised May 2008); Table E-2, Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (which are based on an excess cancer risk of 1E-06 and a hazard quotient of 0.2). ESL values (if established) for contaminants detected in shallow soil vapor at the site are included on Table 1 for reference.

Under a commercial property scenario, concentrations of all contaminants reported in shallow soil vapor were below ESLs. Under a residential property scenario, the PCE concentrations reported in samples SV-1A (660 $\mu\text{g}/\text{m}^3$) and SV-1B (490 $\mu\text{g}/\text{m}^3$) exceeded the residential ESL value of 410 $\mu\text{g}/\text{m}^3$.

RECOMMENDED WORK SCOPE CHANGES

In order to assess the lateral extent of petroleum hydrocarbon impact to groundwater, Stratus intends to advance offsite borings DP-1 through DP-14 and collect depth discrete water samples from each borehole. Based on soil types observed during the CPT investigation, it appears appropriate to target sandier strata situated in the vicinity of 30 feet bgs for sampling. However, at the boring CPT-1 location, Stratus was unable to collect a groundwater sample between 28 and 31 feet bgs due to dry conditions within the sampling hole, despite static water levels of approximately 20 feet bgs in the site monitoring wells at the time of the investigation.

In order to obtain groundwater samples from offsite borings DP-1 through DP-14 at approximately 30 feet bgs, it may be necessary to allow the hydropunch sampler to be exposed in the ground for an extended period of time, such as overnight or through a weekend, in order to allow for sufficient groundwater to recharge the borehole for sampling. Although this is not the typical procedure used for sample collection, slow recharge of groundwater may necessitate this modification to the hydropunch sampling technique if shallow groundwater conditions are to be assessed offsite within direct push sampling borings.

In order to analyze groundwater samples for oil and grease, collection of a relatively large quantity of sample (1-liter) is necessary in order to fill amber bottles required for the required laboratory methodology. Due to slow recharge of groundwater and expected limited sample quantity, Stratus is proposing to omit analysis for oil and grease in groundwater samples collected from offsite borings DP-1 through DP-14.

CLOSING

Stratus is tentatively scheduled to complete the offsite investigation work during the weeks of January 9 and 16, 2012. Stratus will contact ACEHD prior to implementing offsite field work to discuss the recommended changes proposed in this document.

LIMITATIONS

This report was prepared in general accordance with accepted standards of care that existed at the time this work was performed. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and somewhat inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies may be performed to reduce uncertainties. This report is solely for the use and information of our client unless otherwise noted.

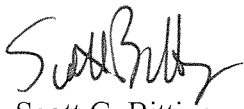
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January 3, 2012

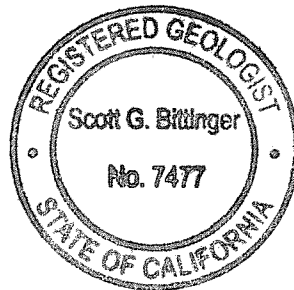
Please contact Scott Bittinger at (530) 676-2062, or via electronic mail at sbittinger@stratusinc.net, if you have any questions regarding this document or the project in general.

Sincerely,

STRATUS ENVIRONMENTAL, INC.



Scott G. Bittinger, P.G.
Project Manager



Attachments:

Table 1	Soil Vapor Analytical Result Summary
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Site Vicinity Map
Appendix A	Drilling Permits
Appendix B	CPT and LIF Data
Appendix C	Soil Vapor Well Detail Diagrams and Boring Logs
Appendix D	Field Data Sheets from Soil Vapor Sampling
Appendix E	Certified Analytical Reports and Chain-of-Custody Documentation
Appendix F	Geotracker Data Upload Confirmation Sheets
Appendix G	Field Data Sheet

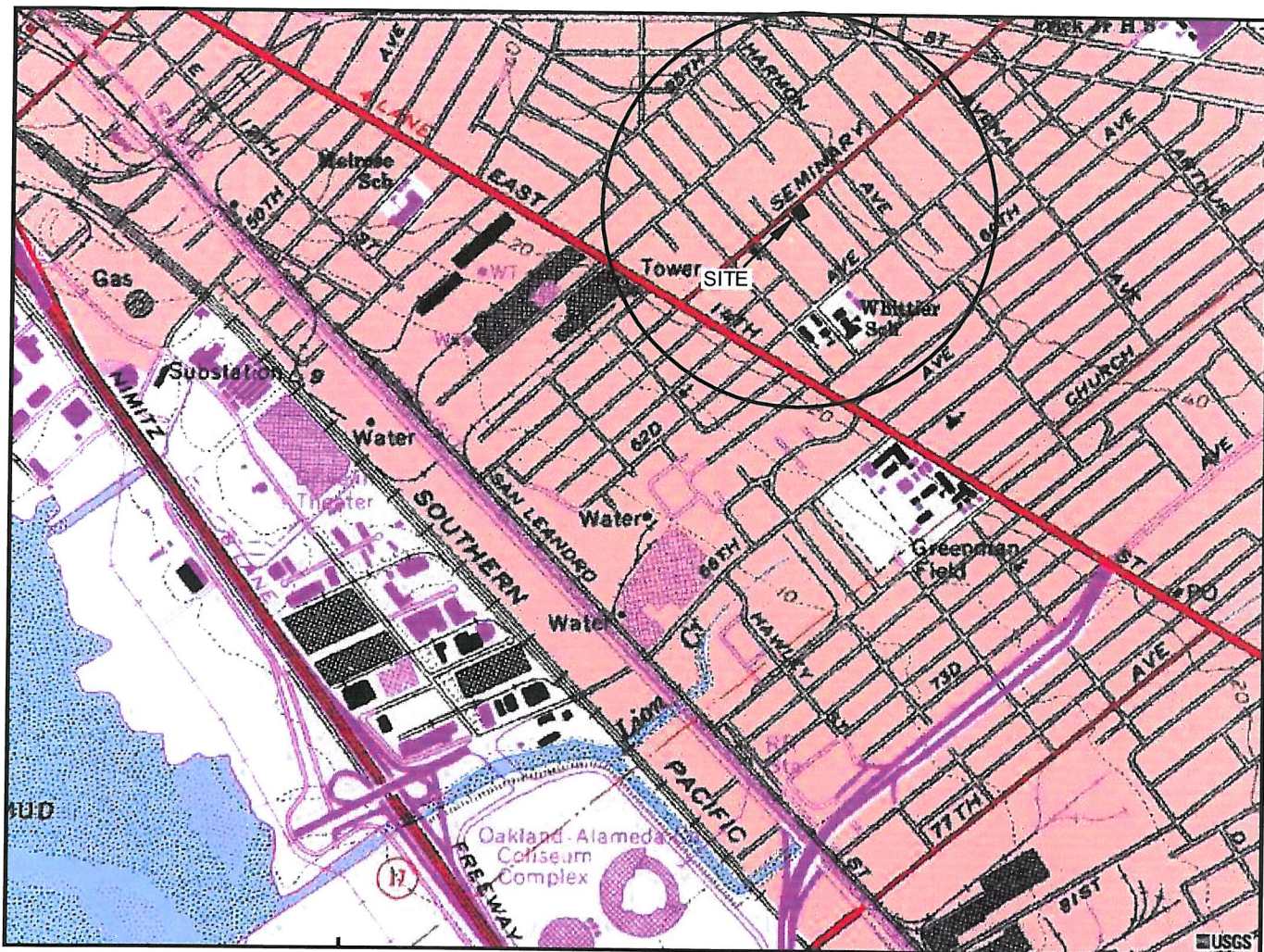
cc: Ms. Angel LaMarca and Ms. Peggy Garcia, Trustee, Gruit Family Trust

TABLE 1
SOIL VAPOR ANALYTICAL RESULT SUMMARY
Former Gritmit Auto
1970 Seminary Avenue, Oakland, California

Sample ID	Sample Depth (feet bgs)	Date	TPHg (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Total Xylenes (µg/m ³)	PCE (µg/m ³)	Freon 11 (µg/m ³)	Acetone (µg/m ³)	Chlorobenzene (µg/m ³)
Environmental Screening Level (ESL)¹ (commercial property/residential property)			29,000/10,000	280/84	180,000/63,000	58,000/21,000	1,400/410	NONE	1,800,000 / 660,000	580,000 / 210,000
SV-1A	4.5-5	12/13/11	<170	<2.6	8.6	<3.6	660	<4.6	14	12
SV-1B	6.25-6.75	12/13/11	<170	<2.7	13	<3.6	490	<4.7	12	17
SV-2A	4.5-5	12/13/11	<170	<2.7	9.9	<3.6	240	43	<8.0	9.1
SV-3A	4.5-5	12/13/11	<190	<2.9	7.6	<4.0	160	<5.1	<8.7	8.9
SV-3B	8.25-8.75	12/13/11	10,000	6.7	32	5.8	78	<4.8	17	30
Sample ID	Sample Depth (feet bgs)	Date	Methylene Chloride (µg/m ³)	Carbon Disulfide (µg/m ³)	2,2,4-TMP (µg/m ³)	Oxygen (percent)	Carbon Dioxide (percent)	Methane (percent)		
Environmental Screening Level (ESL)¹ (commercial property/residential property)			17,000/5,200	NONE	NONE					
SV-1A	4.5-5	12/13/11	<2.8	<10	<3.8	20	0.75	<0.00016		
SV-1B	6.25-6.75	12/13/11	<2.9	<10	<3.9	20	0.83	<0.00017		
SV-2A	4.5-5	12/13/11	<2.9	42	<3.9	18	1.2	<0.00017		
SV-3A	4.5-5	12/13/11	<3.2	<11	<4.3	19	1.7	<0.00018		
SV-3B	8.25-8.75	12/13/11	3.1	72	480	18	1.8	<0.00017		

TABLE 1
SOIL VAPOR ANALYTICAL RESULT SUMMARY
 Former Gritmit Auto
 1970 Seminary Avenue, Oakland, California

Sample ID	Sample Depth (feet bgs)	Date	TPHg ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Total Xylenes ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	Freon 11 ($\mu\text{g}/\text{m}^3$)	Acetone ($\mu\text{g}/\text{m}^3$)	Chlorobenzene ($\mu\text{g}/\text{m}^3$)
Legend:			Notes:							
TPHg = Total petroleum hydrocarbons as gasoline			¹ = <i>RWQCB-SF Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final – November 2007 (revised May 2008)</i> ; Table E-2, Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (lowest commercial established risk value)							
PCE = Tetrachloroethene										
2,2,4-TMP = 2,2,4-Trimethylpentane										
ug/m ³ = micrograms per cubic meter			VOCs not included on this table had non-detectable concentrations reported by laboratory							
Analytical Laboratory			BOLD font indicates analyte exceeds residential ESL for PCE							
Air Toxics, LTD. (NELAP 02110CA)										
Analytical Methods										
VOC's presented on this table were analyzed using EPA Method TO-15 Modified										
Atmospheric gases presented on this table were analyzed using ASTM Method D-1946 Modified										



GENERAL NOTES:
 BASE MAP FROM U.S.G.S.
 OAKLAND, CA.
 7.5 MINUTE TOPOGRAPHIC
 PHOTOREVISED 1996



APPROXIMATE SCALE



QUADRANGLE LOCATION

STRATUS
 ENVIRONMENTAL, INC.

FORMER GRIMIT AUTO
 1970 SEMINARY AVENUE
 OAKLAND, CALIFORNIA

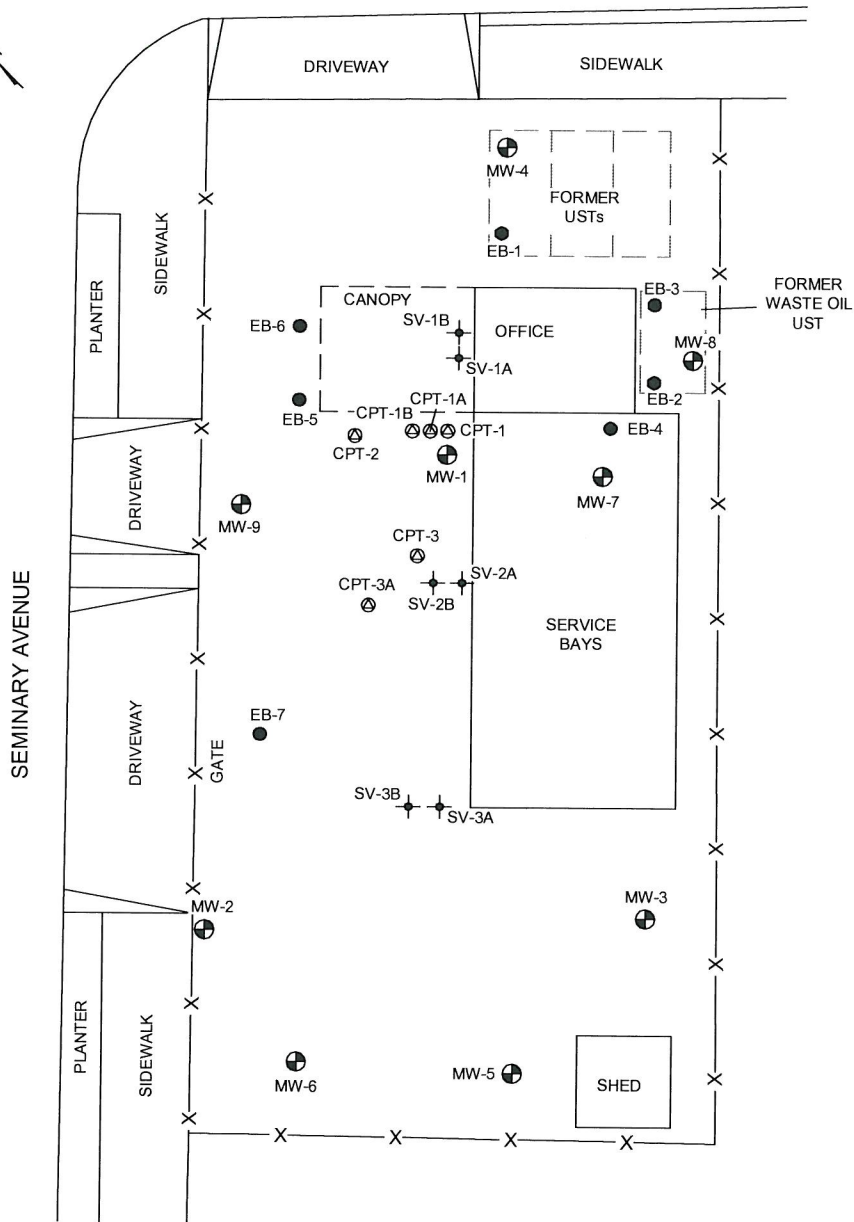
SITE LOCATION MAP

FIGURE

1

PROJECT NO.
 2090-1970-01

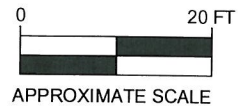
HARMON AVENUE



LEGEND

- ⊕ MW-1 GROUNDWATER MONITORING WELL LOCATION
- EB-1 EXPLORATORY BORING LOCATION
- ⊗ CPT-1 APPROXIMATE CPT/LIF BORING LOCATION
- ⊕ SV-1A/B APPROXIMATE SOIL VAPOR SAMPLING WELL LOCATION

NOTE: LOCATIONS OF ALL WELLS & SITE FEATURES ARE APPROXIMATE



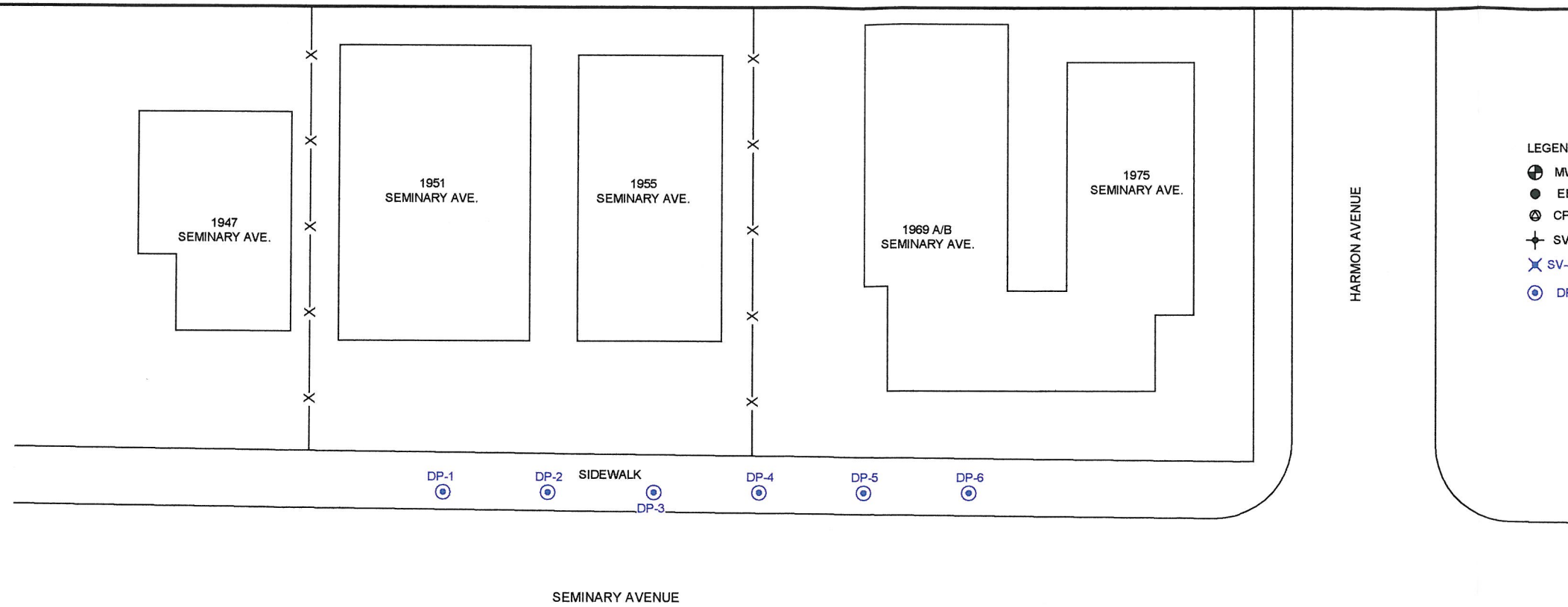
FORMER GRIMIT AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE

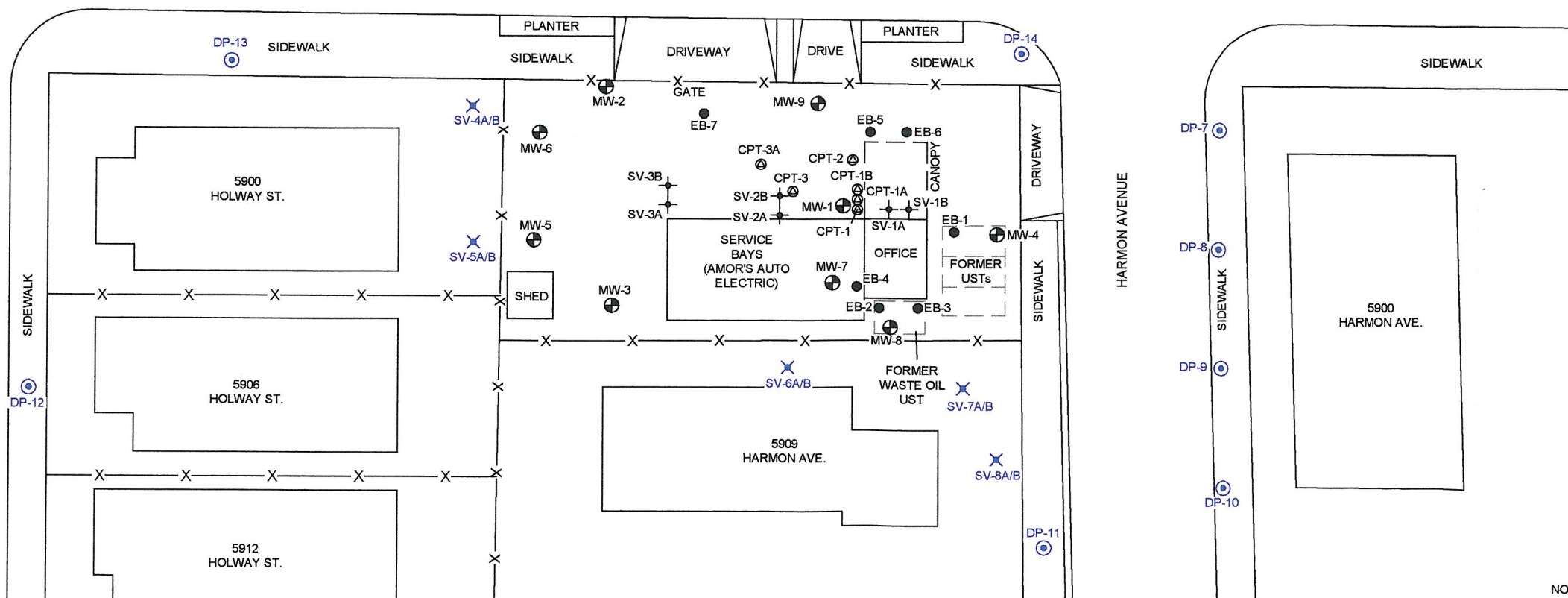
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PROJECT NO.
2090-1970-1



- LEGEND
- MW-1 GROUNDWATER MONITORING WELL LOCATION
 - EB-1 EXPLORATORY BORING LOCATION
 - CPT-1 PROPOSED CPT/LIF BORING LOCATION
 - SV-1A APPROXIMATE SOIL VAPOR SAMPLING WELL LOCATION
 - SV-4A/B PROPOSED SOIL VAPOR SAMPLING WELL LOCATION
 - DP-1 PROPOSED DIRECT PUSH BORING LOCATION (MAY 2009 & NOVEMBER 2010)

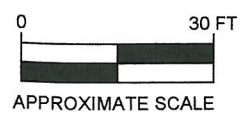
SEMINARY AVENUE



NOTE: LOCATIONS OF ALL WELLS & SITE FEATURES ARE APPROXIMATE

Gritm AutoWorkplan_JMP REV August 19, 2011 Gritm Site Vicinity Map

STRATUS
ENVIRONMENTAL, INC.



FORMER GRITM AUTO
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

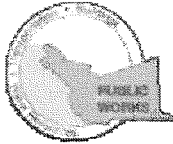
SITE VICINITY MAP

FIGURE
3

PROJECT NO.
2090-1970-1

APPENDIX A
DRILLING PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 10/31/2011 By jamesy

Permit Numbers: W2011-0671
Permits Valid from 11/30/2011 to 12/02/2011

Application Id: 1319498159967
Site Location: 1970 Seminary Avenue, Oakland, CA
Project Start Date: 11/30/2011
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland
Completion Date:12/02/2011

Applicant: Stratus Environmental - Scott Bittinger
3330 Cameron Park Dr, #550, Cameron Park, CA 95682

Phone: 530-676-2062

Property Owner: Grit Family Trust
945 So. Lehigh Dr., Anaheim Hills, CA 92807

Phone: 714-493-0121

Client: ** same as Property Owner **

Receipt Number: WR2011-0318 Total Due: \$265.00
Payer Name : Stratus Total Amount Paid: \$265.00
Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes
Driller: Gregg - Lic #: 656407 - Method: other

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0671	10/31/2011	02/28/2012	5	2.00 in.	70.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least

Alameda County Public Works Agency - Water Resources Well Permit

five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

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

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 11/08/2011 By jamesy

Permit Numbers: W2011-0685
Permits Valid from 11/30/2011 to 12/02/2011

Application Id: 1320704031912
Site Location: 1970 Seminary Avenue, Oakland, CA
Project Start Date: 11/30/2011
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site: Oakland
Completion Date: 12/02/2011

Applicant: Stratus - Scott Bittinger
3330 Cameron Park Dr #550, Cameron Park, CA 95682
Property Owner: Grimilt Family Trust
14618 Dublin Ave, Gardena, CA 90247
Client: ** same as Property Owner **

Phone: 530-676-2062
Phone: 714-493-0121

Receipt Number: WR2011-0330	Total Due:	\$265.00
Payer Name : Stratus	Total Amount Paid:	\$265.00
	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 6 Wells
Driller: Gregg - Lic #: 656407 - Method: other

Work Total: \$265.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2011-0685	11/08/2011	02/28/2012	SV-1A	3.00 in.	0.25 in.	3.00 ft	6.00 ft
W2011-0685	11/08/2011	02/28/2012	SV-1B	3.00 in.	0.25 in.	7.00 ft	10.00 ft
W2011-0685	11/08/2011	02/28/2012	SV-2A	3.00 in.	0.25 in.	3.00 ft	6.00 ft
W2011-0685	11/08/2011	02/28/2012	SV-2B	3.00 in.	0.25 in.	7.00 ft	10.00 ft
W2011-0685	11/08/2011	02/28/2012	SV-3A	3.00 in.	0.25 in.	3.00 ft	6.00 ft
W2011-0685	11/08/2011	02/28/2012	SV-3B	3.00 in.	0.25 in.	7.00 ft	10.00 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. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

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

Alameda County Public Works Agency - Water Resources Well Permit

properly damage, personal injury and wrongful death.

4. 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.

5. 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.

6. 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.

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

8. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org 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.

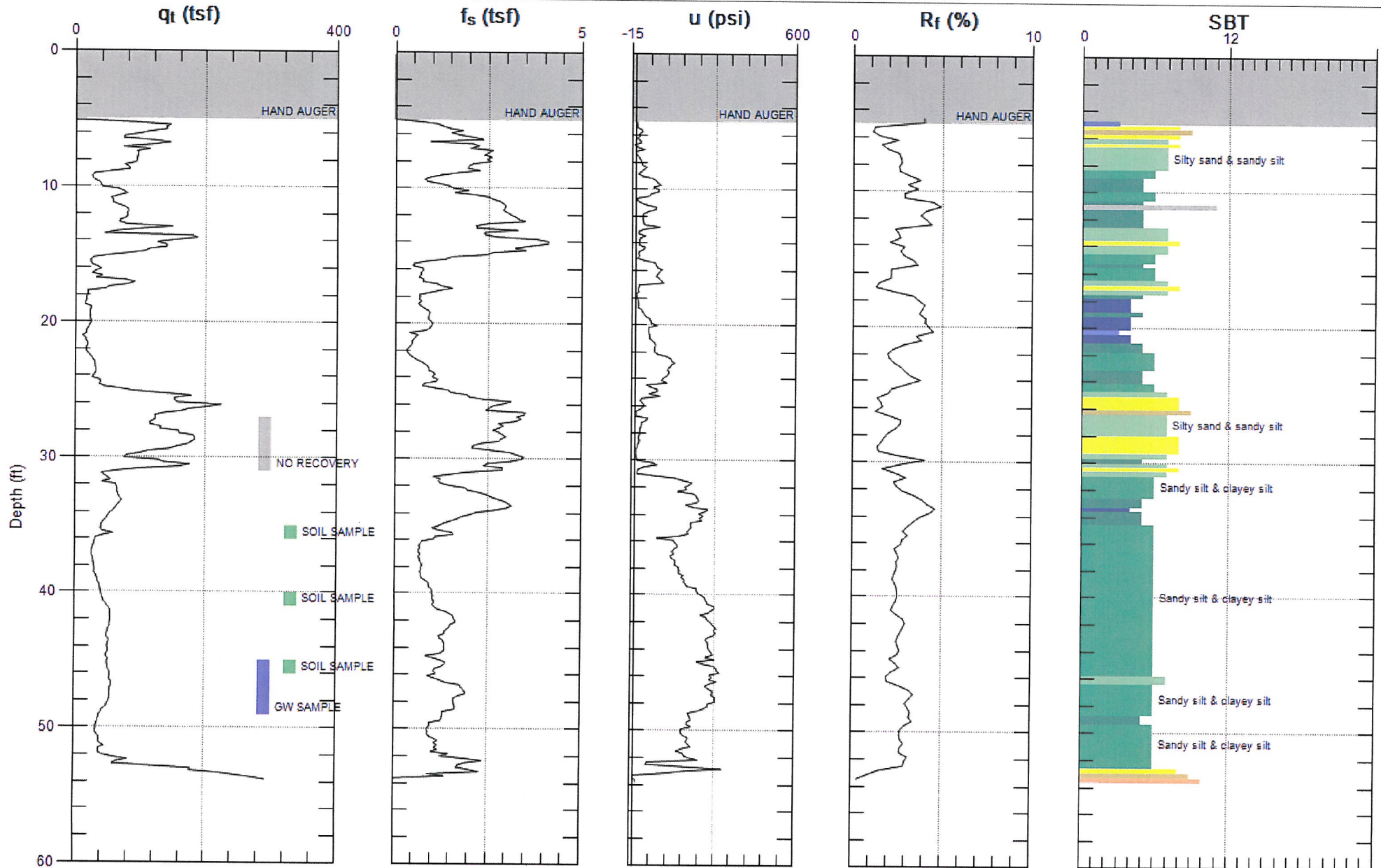
9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner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

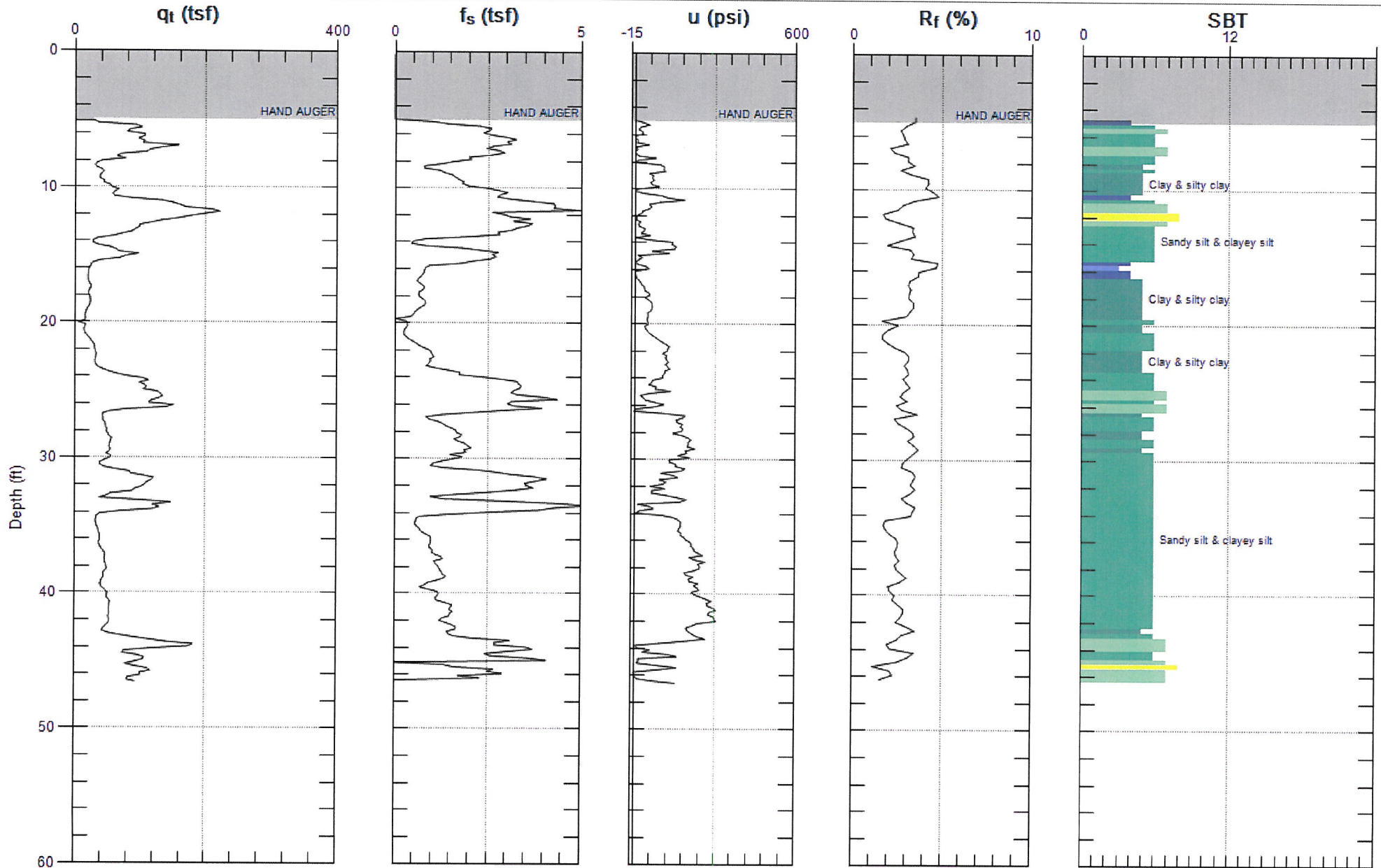
10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

11. 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 B
CPT AND LIF DATA





Max. Depth: 46.588 (ft)
Avg. Interval: 0.328 (ft)

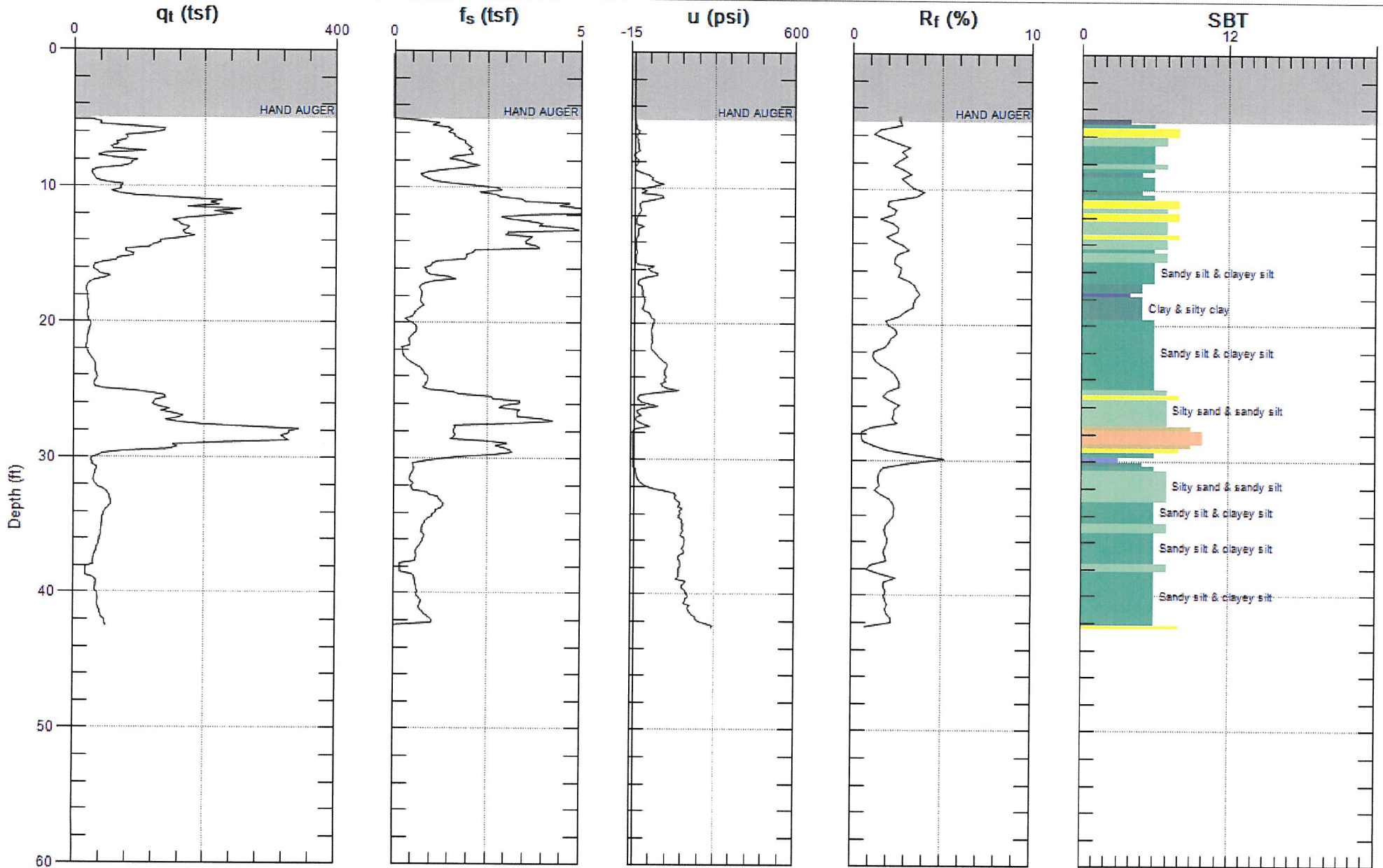
SBT: Soil Behavior Type (Robertson 1990)



STRATUS

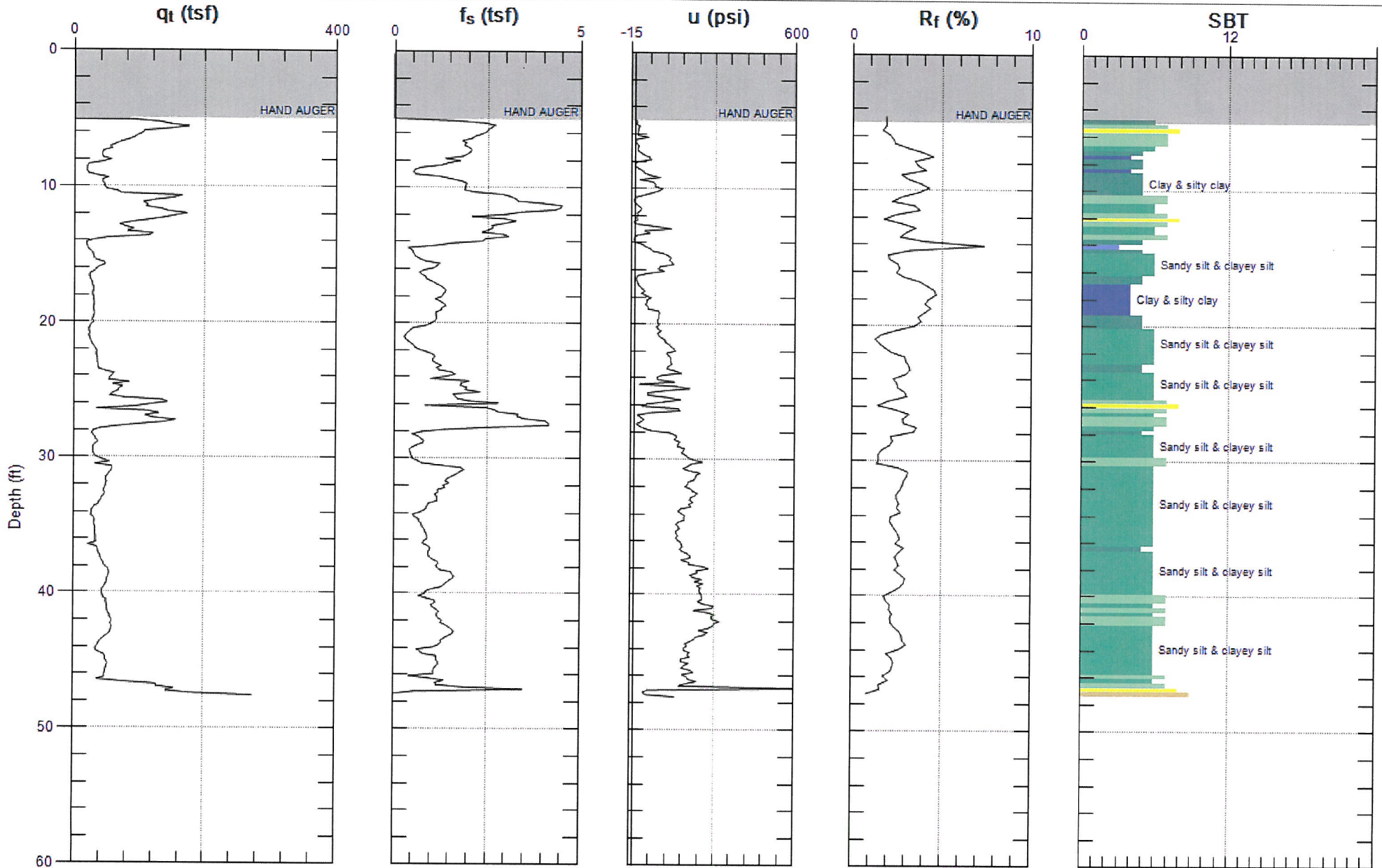
Site: FORMER GRIMIT AUTO
Sounding: UCPT-03

Engineer: S.BITTINGER
Date: 12/1/2011 11:37



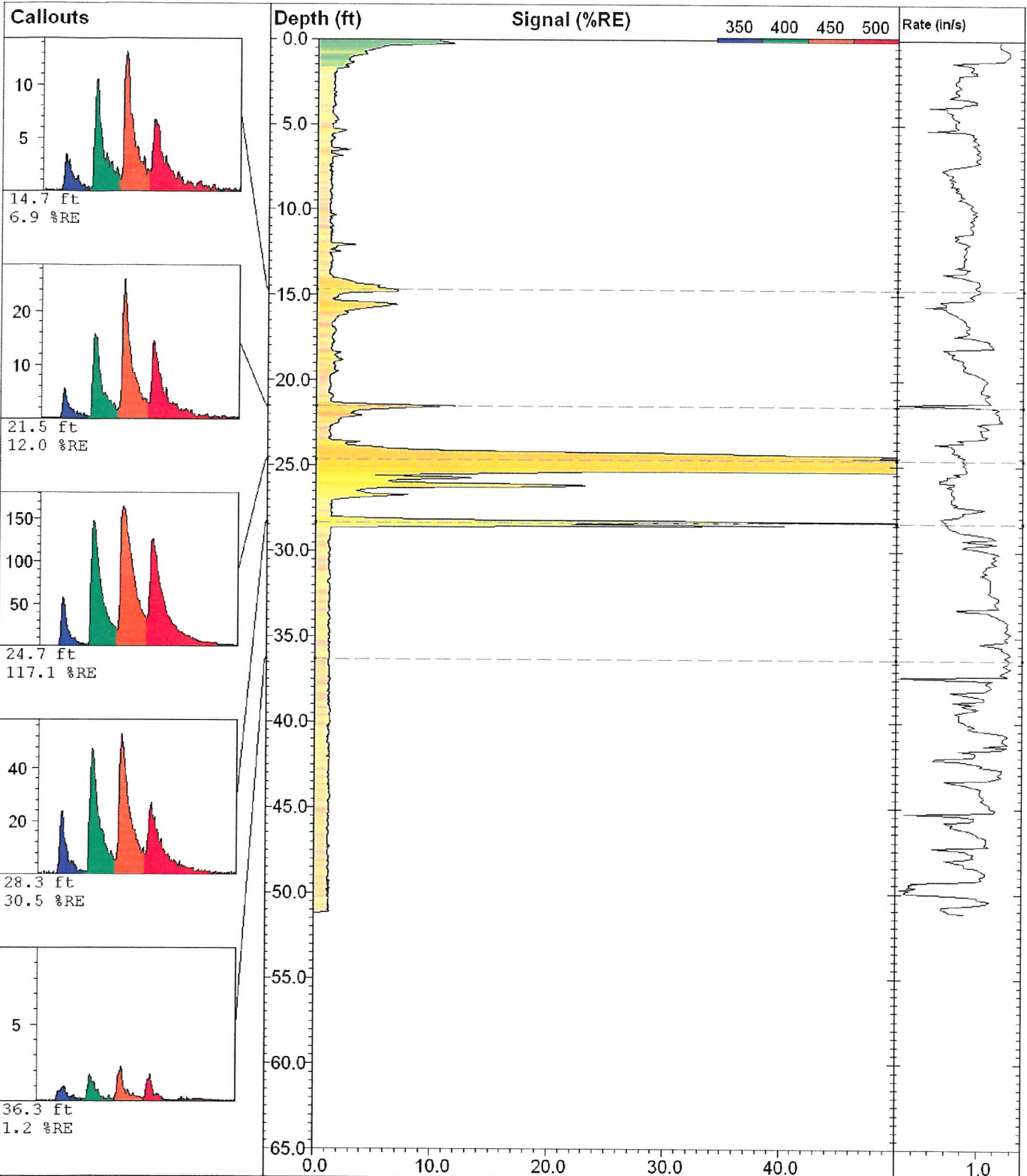
Max. Depth: 42.487 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

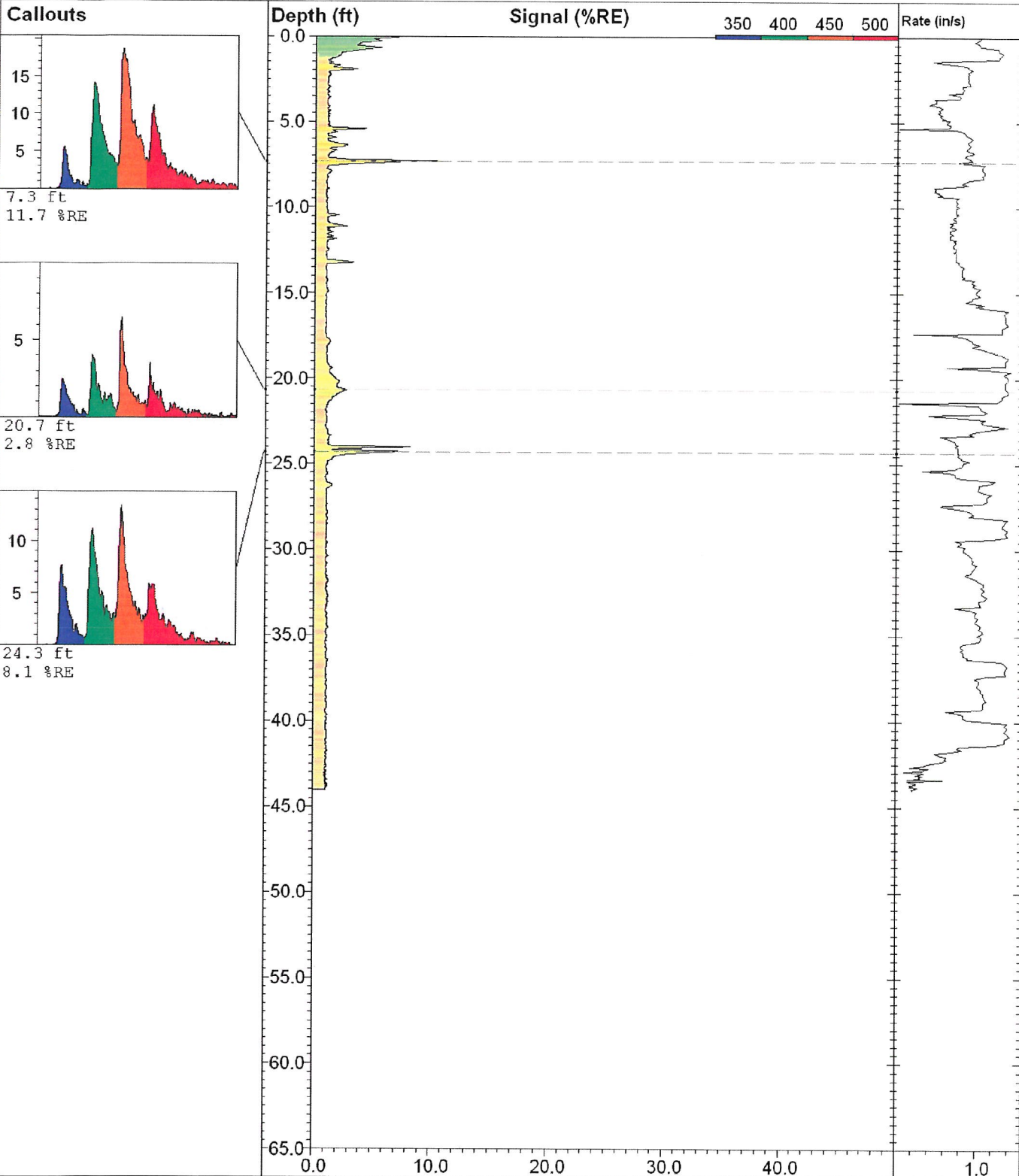


Max. Depth: 47.572 (ft)
Avg. Interval: 0.328 (ft)

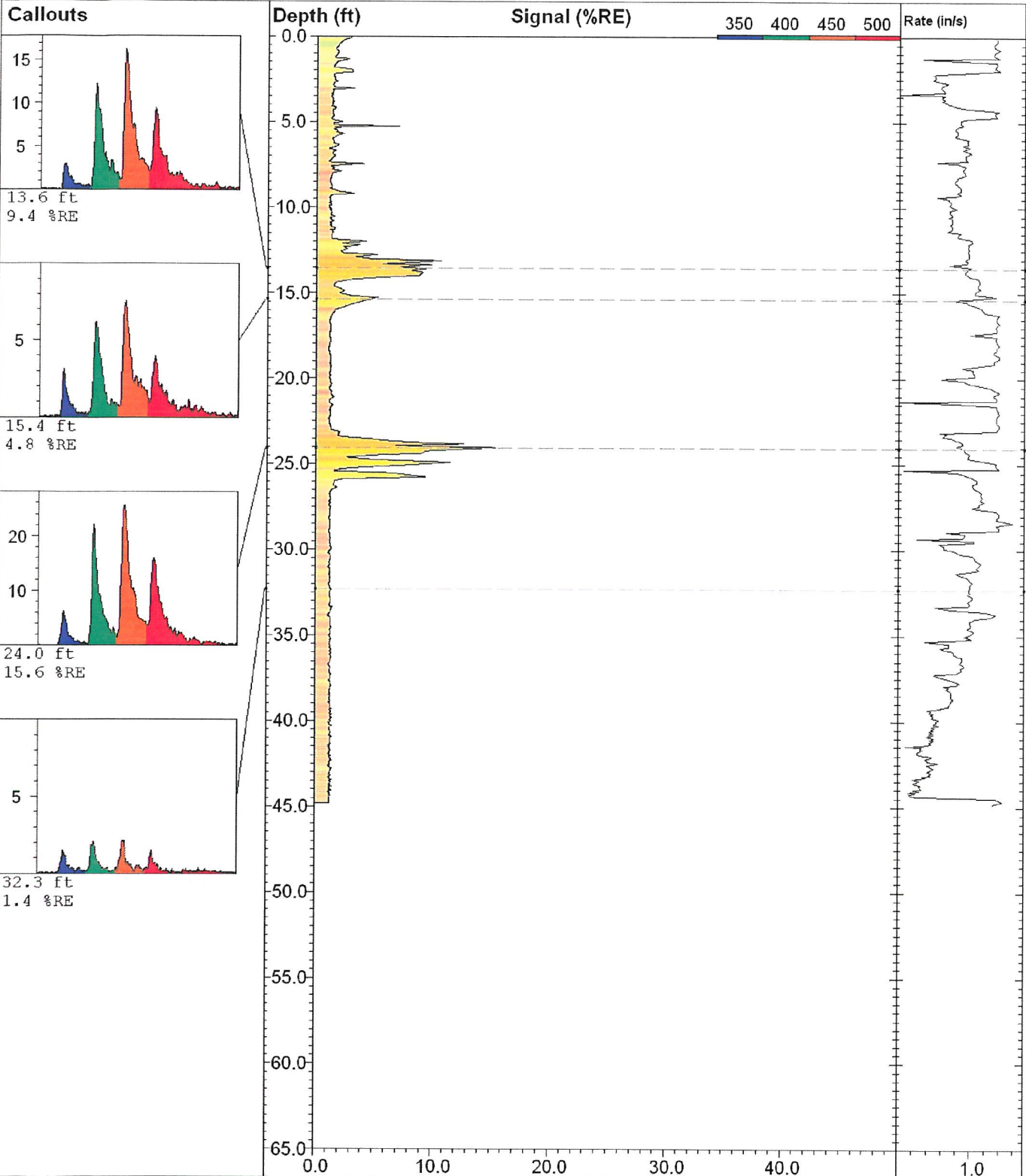
SBT: Soil Behavior Type (Robertson 1990)



UCPt-01		UVOST By Dakota www.DakotaTechnologies.com
Site: Grimt Auto	Latitude / Datum: Unavailable / NA	Final depth: 51.17 ft
Client: Stratus	Longitude / Fix: Unavailable / NA	Max signal: 438.3 % @ 25.22 ft
Job: 2090.1970	Operator/Unit: John/UVOST1009	Date & Time: 2011-12-01 14:28 PST



UCPT-02		UVOST By Dakota www.DakotaTechnologies.com
Site: Grimit Auto	Latitude / Datum: Unavailable / NA	Final depth: 44.03 ft
Client: Stratus	Longitude / Fix: Unavailable / NA	Max signal: 11.7 % @ 7.32 ft
Job: 2090.1970	Operator/Unit: John /UVOST1009	Date & Time: 2011-12-02 09:04 PST



UCPT-03 <i>A</i>		UVOST By Dakota www.DakotaTechnologies.com
Site: Grimit Auto	Latitude / Datum: Unavailable / NA	Final depth: 44.80 ft
Client: Stratus	Longitude / Fix: Unavailable / NA	Max signal: 15.6 % @ 24.04 ft
Job: 2090.1970	Operator/Unit: John /UVOST1009	Date & Time: 2011-12-02 11:34 PST

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CONE PENETRATION TESTING EQUIPMENT

LASER INDUCED FLUORESCENCE (UVOST)

Gregg Drilling & Testing, Inc. conducts Laser Induced Fluorescence (LIF) cone penetration tests using an Ultra-Violet Optical Screening Tool (UVOST) module that is located behind the standard piezocone, Figure UVOST. The UVOST works on the principle that polycyclic aromatic hydrocarbons (PAH's), located in soil and/or groundwater fluoresce when irradiated by ultra violet light. Different types of PAHs will fluoresce at different wave lengths leaving a characteristic fluorescence signature. Measuring the intensity and wavelength of the fluoresced PAH allows one to assess the type and relative concentration of PAH present in the CPT-UVOST sounding.

Performing CPT-UVOST soundings at multiple locations across a site allows for an accurate determination of the site stratigraphy and piezometric profile along with the location of the residual phase NAPL present at the site. These data can be used to select appropriate boring, sampling and monitoring well locations which allows for a more rapid, accurate and cost effective site assessment and remediation program when compared with the traditional multiphase drilling and sampling program.

The UVOST (Ultra-Violet Optical Screening Tool) module in conjunction with Cone Penetration Testing (CPT) can provide detailed stratigraphic logging plus hydrocarbon contaminant screening.

How it works:

- UV light from a laser is emitted through a window in the cone causing hydrocarbon molecules to fluoresce.
- Fiber optic cables transmit fluorescence to the surface where intensity and decay are recorded every 2 inches.
- Decay signatures determine the type of hydrocarbon contaminant and signal intensity determines the location.

Benefits:

- Capability to push up to 600 feet per day.
- Cost effective method to determine extent, location and type of contaminant.
- Color coded logs offer qualitative information and can be produced in the field for real-time decision making.
- No samples or cuttings and significant time savings over traditional drilling and sampling.
- Minimal site and environmental impact.

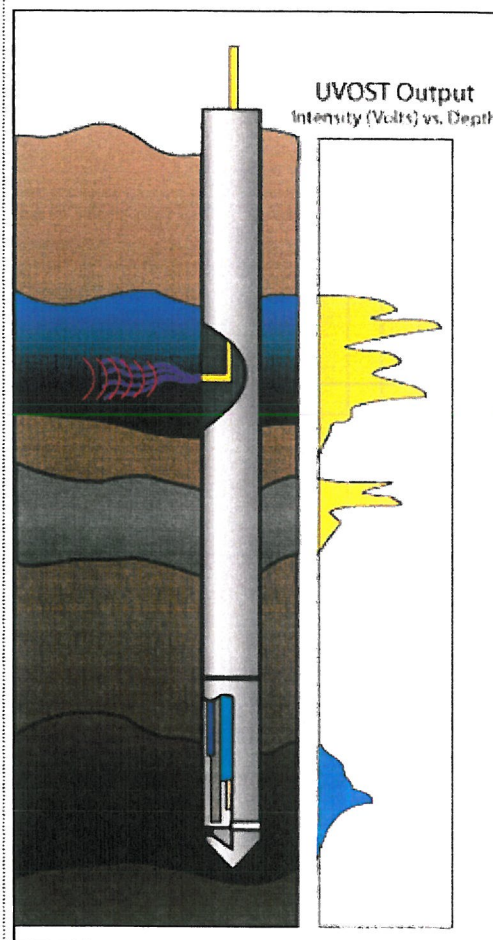


Figure UVOST:
UVOST system deployed with the CPT

ADDITIONAL INFORMATION

View/Print: [UVOST Datasheet](#) See Also: [Technical Methodology](#)

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2726 Walnut Avenue; Signal Hill, CA 90755 • Email: info@greggdrilling.com

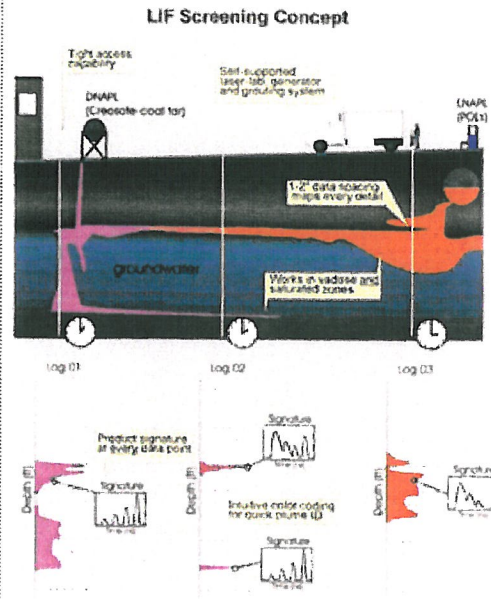



Figure Concept (figure courtesy of Dakota Technologies)

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Soil Color - SCOST™
Electrical Conductivity
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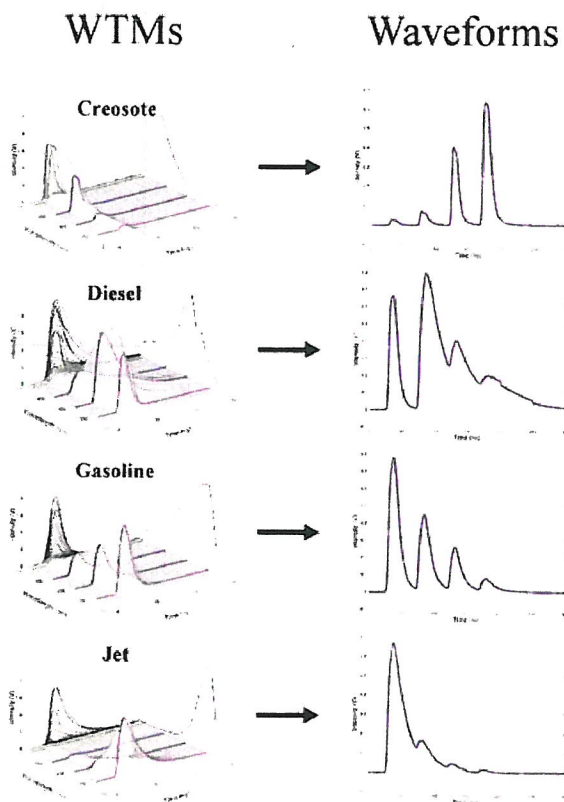
Contact Us

Headquarters
2201-A 12th St N
Fargo, ND 58102
701-237-4908

LIF Introduction

Fluorescence is a property of some compounds where absorbed light stimulates the release of photons (light) of a longer wavelength. Fluorescence, a property of many aromatic hydrocarbons, can be used to detect small amounts of substance in/on a much larger matrix. Here we will discuss the use of Laser Induced Fluorescence (LIF) for purposes of site investigation.

The fluorescence of PAHs has both a spectral and temporal component. Real-world environmental samples typically contain at least several (if not dozens) of different PAHs along with other fluorophores, and the PAH fluorescence spectra overlap to form broad and fairly featureless spectral and temporal emission (compared to pure PAH spectra). If we were to record the temporal decay waveforms across the entire spectrum we would record what is called a wavelength-time matrix (WTM) that would describe the fluorescence emission completely. Dakota's LIF systems monitor four unique bands of this emission in real-time.



WTM's of common fuels

How It Works

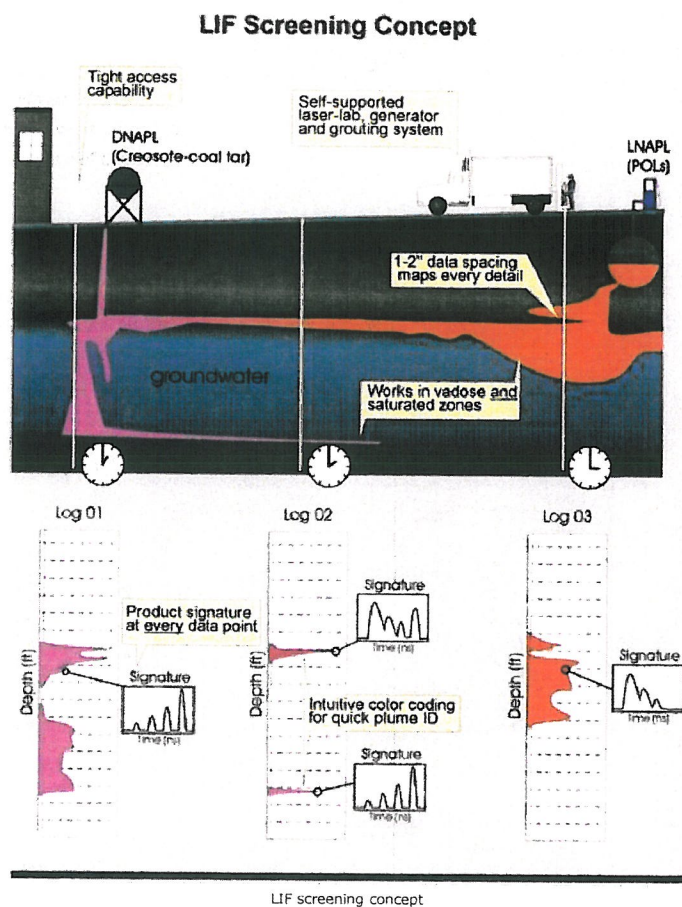
The system developed by Dakota sends excitation light through fiber optic cable strung within rods. The light exits through a window in the side of the probe. As the probe is advanced the soil is exposed to the excitation light. If fluorescent compounds exist (i.e. contaminants) light is emitted. The "signal" light is transmitted through a fiber, back up hole to be analyzed. Responses are indicated in real-time on a graph of signal vs. depth. The graph can also display color logs and waveforms to aid in identification of the contaminant present.

Benefits of LIF

- Production rate - 200 to 400 ft. per day depending on soil conditions and grouting methods.
- No samples - LIF collects and displays data in real time. Therefore no samples are collected.
- Decontamination - With a special rod wiper and no sampling equipment, decontamination is virtually eliminated.

- Quick results - Results can be printed out before the rods can be extracted from the ground. Providing real-time decision making and results in a true seek-and-find style of site characterization.

© 2011 Dakota Technologies



Publications

"In situ Characterization of NAPL with TargOST® at MGP Sites" (external link, valid 2006-07): R. St. Germain, S. Adamek and T. Rudolph, *Land Contamination & Reclamation*, 14(2), 573-578(6) (2006)

"Case study: confirmation of TargOST laser-induced fluorescence DNAPL delineation with soil boring data" (external link, valid 2006-07): M. B. Okin, S. M. Carroll, W. R. Fisher, and R. W. St. Germain, *Land Contamination & Reclamation*, 14(2), 573-578(6) (2006)

"Demonstration of a Method for the Direct Determination of PAHs in Submerged Sediments" (external link, valid 2006-07): T. Grundl, J. Aldstadt, J. Harb, R. St. Germain, and R. Schweitzer, *Environ. Sci. Technol.*, 14(2), 37(6), 1189-1197 (2003)

"An In-Situ Laser-Induced Fluorescence System for Polycyclic Aromatic Hydrocarbon-Contaminated Sediment" (external link, valid 2006-07): J. Aldstadt, R. St. Germain, T. Grundl, and R. Schweitzer, United States Environmental Protection Agency, Great Lakes National Program Office (2002)

"Chemometric treatment of multimode laser-induced fluorescence (LIF) data of fuel-spiked soils" (external link, valid 2006-07): M. H. Van Benthem, B. C. Mitchell, G. D. Gillispie, and R. W. St. Germain, *Advanced Technologies for Environmental Monitoring and Remediation*, Tuan Vo-Dinh, Editor, *Proc. SPIE*, 2835, 167-179 (1996)

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APPENDIX C

SOIL VAPOR WELL DETAIL DIAGRAMS AND BORING LOGS

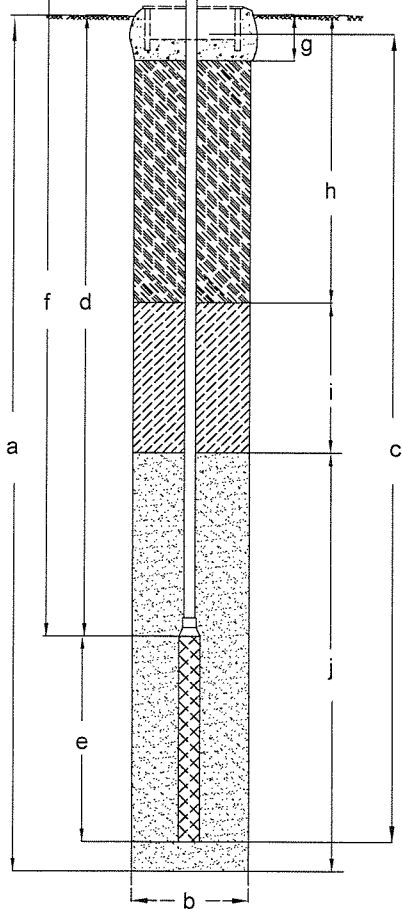
SOIL GAS WELL DETAILS






PROJECT NUMBER 2090-1970-01
 PROJECT NAME Former Gruit Auto
 LOCATION 1970 Seminary Avenue, Oakland, CA

BORING/WELL NO. SV-1A
 WELL PERMIT NO. W2011-0685
 INSTALLATION DATE November 30, 2011

SWAGELOK VALVE
 INSTALLED ON
 TOP OF TUBING

TUBING ROLLS UP
 INTO WELL BOX
 G-5 VAULT BOX (STD.)



- | | |
|---|--|
|  BENTONITE |  CONCRETE |
|  CEMENT |  SAND |
| |  MESH IMPLANT |

NOT TO SCALE

EXPLORATORY BORING

a. TOTAL DEPTH 5.5 ft.
 b. DIAMETER 3.5 in.
 DRILLING METHOD Hand Augering

WELL CONSTRUCTION

c. TOTAL WELL DEPTH 5 ft.
 WELL SCREEN MATERIAL 50 Micron Stainless Steel Mesh
 d. DEPTH TO TOP IMPLANT 4.5 ft.
 e. IMPLANT
 INTERVAL FROM 4.5 TO 5.0 ft.
 f. LENGTH OF TUBING 7 ft.
 TUBING CONNECTED TO IMPLANT AT 4.5 ft.
 TUBING DIAMETER 0.25 in.
 TUBING MATERIAL Nylaflow
 g. SURFACE SEAL 0 to 0.5 ft.
 SEAL MATERIAL Concrete
 h. BACKFILL 0.5 to 1.0 ft.
 BACKFILL MATERIAL Neat Cement
 i. SEAL 1.0 to 4.0 ft.
 SEAL MATERIAL Granular Bentonite
 j. FILTER PACK 4.0 to 5.5 ft.
 FILTER PACK MATERIAL #3 Sand

PREPARED BY Allan Dudding DATE December 5, 2011

REVIEWED BY _____ DATE _____

SOIL GAS WELL DETAILS

PROJECT NUMBER 2090-1970-01

BORING/WELL NO. SV-2A

PROJECT NAME Former Gruit Auto

WELL PERMIT NO. W2011-0685

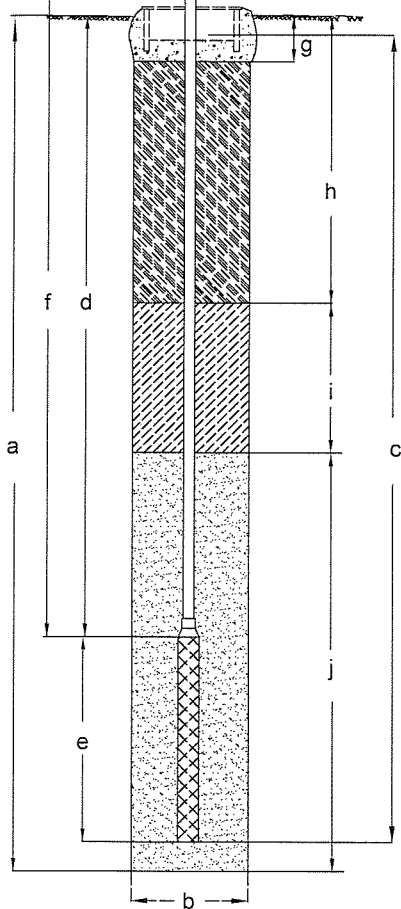
LOCATION 1970 Seminary Avenue, Oakland, CA






INSTALLATION DATE November 30, 2011

SWAGELOK VALVE
INSTALLED ON
TOP OF TUBING

TUBING ROLLS UP
INTO WELL BOX

G-5 VAULT BOX(STD.)



- | | |
|---|--|
|  BENTONITE |  CONCRETE |
|  CEMENT |  SAND |
| |  MESH IMPLANT |

NOT TO SCALE

EXPLORATORY BORING

a. TOTAL DEPTH 5.5 ft.

b. DIAMETER 3.5 in.

DRILLING METHOD Hand Augering

WELL CONSTRUCTION

c. TOTAL WELL DEPTH 5 ft.

WELL SCREEN MATERIAL 50 Micron Stainless Steel Mesh

d. DEPTH TO TOP IMPLANT 4.5 ft.

e. IMPLANT

INTERVAL FROM 4.5 TO 5.0 ft.

f. LENGTH OF TUBING 7 ft.

TUBING CONNECTED TO IMPLANT AT 4.5 ft.

TUBING DIAMETER 0.25 in.

TUBING MATERIAL Nylaflow

g. SURFACE SEAL 0 to 0.5 ft.

SEAL MATERIAL Concrete

h. BACKFILL 0.5 to 1.0 ft.

BACKFILL MATERIAL Neat Cement

i. SEAL 1.0 to 4.0 ft.

SEAL MATERIAL Granular Bentonite

j. FILTER PACK 4.0 to 5.5 ft.

FILTER PACK MATERIAL #3 Sand

PREPARED BY Allan Dudding DATE December 5, 2011

REVIEWED BY _____ DATE _____

SOIL GAS WELL DETAILS

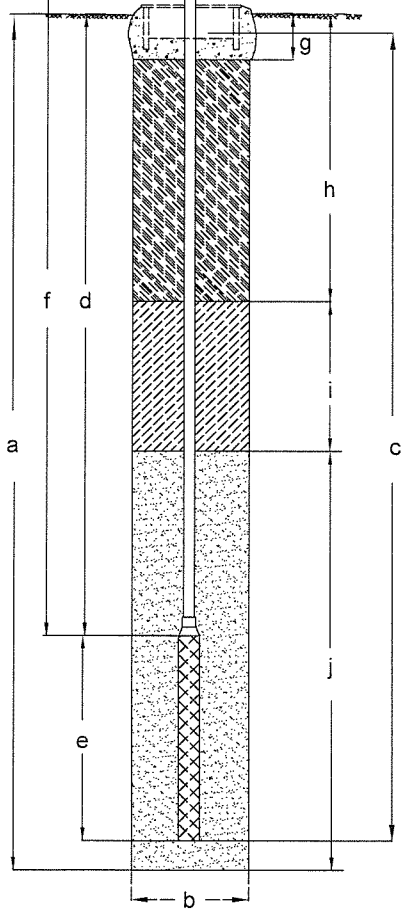
PROJECT NUMBER 2090-1970-01
 PROJECT NAME Former Gruit Auto
 LOCATION 1970 Seminary Avenue, Oakland, CA






BORING/WELL NO. SV-3A
 WELL PERMIT NO. W2011-0685
 INSTALLATION DATE November 30, 2011

SWAGELOK VALVE
 INSTALLED ON
 TOP OF TUBING

TUBING ROLLS UP
 INTO WELL BOX

G-5 VAULT BOX(STD.)



- | | |
|---|--|
|  BENTONITE |  CONCRETE |
|  CEMENT |  SAND |
| |  MESH IMPLANT |

NOT TO SCALE

EXPLORATORY BORING

a. TOTAL DEPTH 5.5 ft.
 b. DIAMETER 3.5 in.
 DRILLING METHOD Hand Augering

WELL CONSTRUCTION

c. TOTAL WELL DEPTH 5 ft.
 WELL SCREEN MATERIAL 50 Micron Stainless Steel Mesh
 d. DEPTH TO TOP IMPLANT 4.5 ft.
 e. IMPLANT
 INTERVAL FROM 4.5 TO 5.0 ft.
 f. LENGTH OF TUBING 7 ft.
 TUBING CONNECTED TO IMPLANT AT 4.5 ft.
 TUBING DIAMETER 0.25 in.
 TUBING MATERIAL Nylaflo
 g. SURFACE SEAL 0 to 0.5 ft.
 SEAL MATERIAL Concrete
 h. BACKFILL 0.5 to 1.0 ft.
 BACKFILL MATERIAL Neat Cement
 i. SEAL 1.0 to 4.0 ft.
 SEAL MATERIAL Granular Bentonite
 j. FILTER PACK 4.0 to 5.5 ft.
 FILTER PACK MATERIAL #3 Sand

PREPARED BY Allan Dudding DATE December 5, 2011


REVIEWED BY _____ DATE _____

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. SV-1B

Sheet: 1 of 1

Client	Grimt Auto Repair	Date	November 30, 2011
Address	1970 Seminary Avenue Oakland, California	Drilling Co.	Gregg Drilling and Testing rig type: Hand auger
Project No.	2090-1970-01	Driller	Brandon
Logged By:	Allan Dudding	Method	Hand digging Hole Diameter: 3.5 inches
Well Pack	sand: 6 ft. to 7 ft. bent.: 3 ft. to 6 ft. grout: 0 ft. to 3 ft.	Well Construction	Casing Material: Nylaflow™ tubing Screen Interval: 6.25 to 6.75 ft. Casing Diameter: 1/4 in. Screen: 50 micron steel mesh implant Depth to GW: ▽ first encountered: ▽ Static:

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	SC	Asphalt pavement at surface. (backfill) Clayey Sand, SC, very dark brown (10YR 2/2), fine to coarse grained, moist, 70% sand, 30% clay, pieces of brick and other materials.	

Recovery _____
Sample _____

Comments: Color descriptions from Munsell Color Chart.



SOIL BORING/WELL CONSTRUCTION LOG

Boring No. SV-2B

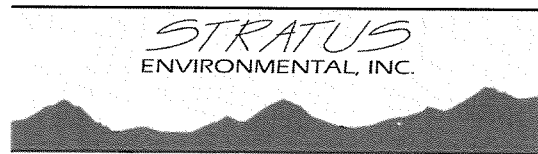
Sheet: 1 of 1

Client	Grimt Auto Repair	Date	November 30, 2011
Address	1970 Seminary Avenue Oakland, California	Drilling Co.	Gregg Drilling and Testing rig type: Hand auger/MARL direct push
Project No.	2090-1970-01	Driller	Brandon
Logged By:	Allan Dudding	Method	Dual-tube direct push Hole Diameter: 2 inches
		Sampler:	4-foot acetate sample liner
Well Pack	sand: 8 ft. to 9 ft. bent.: 5 ft. to 8 ft. grout: 0 ft. to 5 ft.	Well Construction	Casing Material: Nylaflo™ tubing Screen Interval: 8.25 to 8.75 ft. Casing Diameter: 1/4 in. Screen: 50 micron steel mesh implant Depth to GW: ▽ first encountered: ▼ Static:

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1	CL	Asphalt pavement at surface.	
						2	CL	Clay with silt, little sand, CL, dark brown (10YR 3/3), medium plasticity, moist, 70% clay, 20% silt, 10% fine to medium sand.	
						3			
						4			
						5	ML	Sandy Silt, some clay, ML, brown (10YR 4/3), low plasticity, moist, 60% silt, 25% fine to coarse sand, 15% clay.	0
						6			
						7			
						8			
						9	CL	Silty Clay, CL, olive gray (5Y 4/2), low plasticity, moist, 60% clay, 40% silt.	16.7
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
						20			

Recovery Sample

Comments: Color descriptions from Munsell Color Chart.



SOIL BORING/WELL CONSTRUCTION LOG

Boring No. SV-3B

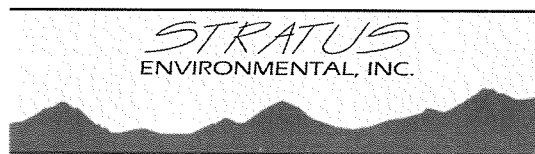
Sheet: 1 of 1

Client	Grimt Auto Repair	Date	November 30, 2011
Address	1970 Seminary Avenue Oakland, California	Drilling Co.	Gregg Drilling and Testing rig type: Hand auger/MARL direct push
Project No.	2090-1970-01	Driller	Brandon
Logged By:	Allan Dudding	Method	Dual-tube direct push Hole Diameter: 2 inches
		Sampler:	4-foot acetate sample liner
Well Pack	sand: 8 ft. to 9 ft. bent.: 5 ft. to 8 ft. grout: 0 ft. to 5 ft.	Well Construction	Casing Material: Nylaflo TM tubing Screen Interval: 8.25 to 8.75 ft. Casing Diameter: 1/4 in. Screen: 50 micron steel mesh implant Depth to GW: ▽ first encountered: ▾ Static:

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1	CL	Asphalt pavement at surface.	
						2	CL	Silty Clay, little sand, CL, dark olive brown (2.5Y 3/3), low plasticity, moist, 60% clay, 30% silt, 10% fine to medium sand.	
						3			
						4	ML	Clayey Silt, little sand, ML, olive brown (2.5Y 4/3), low plasticity, moist, 60% silt, 30% clay, 10% fine to coarse sand.	
						5	ML	Clayey Silt with sand, ML, dark yellowish brown (10YR 4/4), low plasticity, moist, 40% silt, 30% clay, 25% fine to coarse sand, 5% fine gravel.	0
						6			
						7			
						8			
						9	CL	Silty Clay, CL, olive (5Y 4/3), low plasticity, moist, 60% clay, 40% silt, trace fine to medium sand.	4.9
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
						20			

Recovery Sample

Comments: Color descriptions from Munsell Color Chart.



APPENDIX D

FIELD DATA SHEETS FROM SOIL VAPOR SAMPLING

Soil Vapor Sampling Field Data Sheet

Site: Grinnit Auto

Date: 12/13/11

Sampler: AMN

Vapor Point Name	Flow Controller Number	Purge Can Number	Leak Test Start		Leak Test End		Purge Start		Purge End		Sample Can Number	Sample Start		Sample End	
			Time	Pressure	Time	Pressure	Time	Pressure	Time	Pressure		Time	Pressure	Time	Pressure
SV-1A	100471	5707	1036	-29.5	1041	-29.5	1041	-29.5	1053	-22	34634	1054	-29	1100	-7
SV-1B	100432	5707	1109	-22	1114	-22	1114	-22	1123	-15	14523	1123	-29.5	1129	-7
SV-2A	100212	5707	1210	-15	1215	-15	1215	-15	1228	-8	34622	1228	-28.5	1234	-7
SV-2B	100479	31432	1244	-29.30	1249	-29.30	1249	-29	No Sample	-10	34097	No Sample	-10	No Sample	-10
SV-3A	100479	31432	1253	-30	1258	-30	1258	-17.2*	1311	-15?	34097	1311	-17.2*	1318	-7
SV-3B	100441	31432	1327	-20	1332	-20	1332	-20	1348 ^{probe}	-13	35676	1349	-29*	1359	-7

* gauge appears to be malfunctioning.
 -7 "Hg backpressure while purging. Low flow rate.
 -8 "Hg backpressure while sampling.

Field Data Sheet

Site: Grimit

Date: 12/13/11

Personnel on site: AMM

Weather Conditions: Clear, cool

Notes: 1005 → Status outside, safety.

1030 → set up on SV-1A

1105 → SV-1B

1135 → lunch

1200 → set up on SV-2A

1240 → SV-2B

1250 → SV-2B has water in the hole. No sample. Move to SV-3A

1325 → SV-3A

1435 → off site.

APPENDIX E

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

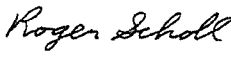

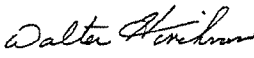
Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 12/06/11

Job: 2090-1970-01/Grimmit Auto

GC/MSD by Direct Injection
EPA Method SW8260B-DI

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: CPT-1-49				
Lab ID : STR11120611-04A Methanol	ND	5,000 µg/L	12/07/11	12/07/11
Date Sampled 12/02/11 16:56 Ethanol	ND	5,000 µg/L	12/07/11	12/07/11

ND = Not Detected




 Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
 Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

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12/13/11

Report Date



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Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 12/06/11

Job: 2090-1970-01/Grimmit Auto

Oil and Grease, HEM
EPA Method 1664A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: CPT-1-49 Lab ID: STR11120611-04A Oil & Grease, HEM Date Sampled 12/02/11 16:56	ND	5,000 µg/L	12/13/11	12/13/11

HEM = Hexane Extractable Material

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl *Randy Gardner* *Walter Hinchman*

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3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 12/06/11

Job: 2090-1970-01/Grimmit Auto

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: CPT-1-35 Lab ID: STR11120611-01A Date Sampled 12/02/11 15:41	TPH-P (GRO) ND	1,000 µg/Kg	12/08/11	12/08/11
Client ID: CPT-1-40 Lab ID: STR11120611-02A Date Sampled 12/02/11 15:56	TPH-P (GRO) ND	1,000 µg/Kg	12/08/11	12/08/11
Client ID: CPT-1-45 Lab ID: STR11120611-03A Date Sampled 12/02/11 16:28	TPH-P (GRO) ND	1,000 µg/Kg	12/08/11	12/08/11
Client ID: CPT-1-49 Lab ID: STR11120611-04A Date Sampled 12/02/11 16:56	TPH-P (GRO) 86	50 µg/L	12/07/11	12/07/11

Gasoline Range Organics (GRO) C4-C13

Reported in micrograms per Kilogram and micrograms per Liter, per client request.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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PS

12/13/11

Report Date



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Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: 2090-1970-01/Grimmit Auto

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR11120611-01A
Client I.D. Number: CPT-1-35

Sampled: 12/02/11 15:41
Received: 12/06/11
Extracted: 12/08/11
Analyzed: 12/08/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	40 µg/Kg	26 Chlorobenzene	ND	20 µg/Kg
2 Vinyl chloride	ND	20 µg/Kg	27 Ethylbenzene	ND	5.0 µg/Kg
3 Chloroethane	ND	20 µg/Kg	28 m,p-Xylene	ND	5.0 µg/Kg
4 Bromomethane	ND	40 µg/Kg	29 Bromoform	ND	20 µg/Kg
5 Trichlorofluoromethane	ND	20 µg/Kg	30 o-Xylene	ND	5.0 µg/Kg
6 1,1-Dichloroethene	ND	20 µg/Kg	31 1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
7 Dichloromethane	ND	40 µg/Kg	32 1,3-Dichlorobenzene	ND	20 µg/Kg
8 trans-1,2-Dichloroethene	ND	20 µg/Kg	33 1,4-Dichlorobenzene	ND	20 µg/Kg
9 Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	34 1,2-Dichlorobenzene	ND	20 µg/Kg
10 1,1-Dichloroethane	ND	20 µg/Kg			
11 cis-1,2-Dichloroethene	ND	20 µg/Kg			
12 Chloroform	ND	20 µg/Kg			
13 1,2-Dichloroethane	ND	20 µg/Kg			
14 1,1,1-Trichloroethane	ND	20 µg/Kg			
15 Carbon tetrachloride	ND	20 µg/Kg			
16 Benzene	ND	5.0 µg/Kg			
17 1,2-Dichloropropane	ND	20 µg/Kg			
18 Trichloroethene	ND	20 µg/Kg			
19 Bromodichloromethane	ND	20 µg/Kg			
20 cis-1,3-Dichloropropene	ND	20 µg/Kg			
21 trans-1,3-Dichloropropene	ND	20 µg/Kg			
22 1,1,2-Trichloroethane	ND	20 µg/Kg			
23 Toluene	ND	5.0 µg/Kg			
24 Dibromochloromethane	ND	20 µg/Kg			
25 Tetrachloroethene	ND	20 µg/Kg			

Sample results were calculated on a wet weight basis.
ND = Not Detected

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: 2090-1970-01/Grimmit Auto

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR11120611-02A
Client I.D. Number: CPT-1-40

Sampled: 12/02/11 15:56
Received: 12/06/11
Extracted: 12/08/11
Analyzed: 12/08/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	40 µg/Kg	26 Chlorobenzene	ND	20 µg/Kg
2 Vinyl chloride	ND	20 µg/Kg	27 Ethylbenzene	ND	5.0 µg/Kg
3 Chloroethane	ND	20 µg/Kg	28 m,p-Xylene	ND	5.0 µg/Kg
4 Bromomethane	ND	40 µg/Kg	29 Bromoform	ND	20 µg/Kg
5 Trichlorofluoromethane	ND	20 µg/Kg	30 o-Xylene	ND	5.0 µg/Kg
6 1,1-Dichloroethene	ND	20 µg/Kg	31 1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
7 Dichloromethane	ND	40 µg/Kg	32 1,3-Dichlorobenzene	ND	20 µg/Kg
8 trans-1,2-Dichloroethene	ND	20 µg/Kg	33 1,4-Dichlorobenzene	ND	20 µg/Kg
9 Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	34 1,2-Dichlorobenzene	ND	20 µg/Kg
10 1,1-Dichloroethane	ND	20 µg/Kg			
11 cis-1,2-Dichloroethene	ND	20 µg/Kg			
12 Chloroform	ND	20 µg/Kg			
13 1,2-Dichloroethane	ND	20 µg/Kg			
14 1,1,1-Trichloroethane	ND	20 µg/Kg			
15 Carbon tetrachloride	ND	20 µg/Kg			
16 Benzene	ND	5.0 µg/Kg			
17 1,2-Dichloropropane	ND	20 µg/Kg			
18 Trichloroethene	ND	20 µg/Kg			
19 Bromodichloromethane	ND	20 µg/Kg			
20 cis-1,3-Dichloropropene	ND	20 µg/Kg			
21 trans-1,3-Dichloropropene	ND	20 µg/Kg			
22 1,1,2-Trichloroethane	ND	20 µg/Kg			
23 Toluene	ND	5.0 µg/Kg			
24 Dibromochloromethane	ND	20 µg/Kg			
25 Tetrachloroethene	ND	20 µg/Kg			

Sample results were calculated on a wet weight basis.
ND = Not Detected

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: 2090-1970-01/Grimmit Auto

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR11120611-03A
Client I.D. Number: CPT-1-45

Sampled: 12/02/11 16:28
Received: 12/06/11
Extracted: 12/08/11
Analyzed: 12/08/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	40 µg/Kg	26 Chlorobenzene	ND	20 µg/Kg
2 Vinyl chloride	ND	20 µg/Kg	27 Ethylbenzene	ND	5.0 µg/Kg
3 Chloroethane	ND	20 µg/Kg	28 m,p-Xylene	ND	5.0 µg/Kg
4 Bromomethane	ND	40 µg/Kg	29 Bromoform	ND	20 µg/Kg
5 Trichlorofluoromethane	ND	20 µg/Kg	30 o-Xylene	ND	5.0 µg/Kg
6 1,1-Dichloroethene	ND	20 µg/Kg	31 1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
7 Dichloromethane	ND	40 µg/Kg	32 1,3-Dichlorobenzene	ND	20 µg/Kg
8 trans-1,2-Dichloroethene	ND	20 µg/Kg	33 1,4-Dichlorobenzene	ND	20 µg/Kg
9 Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	34 1,2-Dichlorobenzene	ND	20 µg/Kg
10 1,1-Dichloroethane	ND	20 µg/Kg			
11 cis-1,2-Dichloroethene	ND	20 µg/Kg			
12 Chloroform	ND	20 µg/Kg			
13 1,2-Dichloroethane	ND	20 µg/Kg			
14 1,1,1-Trichloroethane	ND	20 µg/Kg			
15 Carbon tetrachloride	ND	20 µg/Kg			
16 Benzene	ND	5.0 µg/Kg			
17 1,2-Dichloropropane	ND	20 µg/Kg			
18 Trichloroethene	ND	20 µg/Kg			
19 Bromodichloromethane	ND	20 µg/Kg			
20 cis-1,3-Dichloropropene	ND	20 µg/Kg			
21 trans-1,3-Dichloropropene	ND	20 µg/Kg			
22 1,1,2-Trichloroethane	ND	20 µg/Kg			
23 Toluene	ND	5.0 µg/Kg			
24 Dibromochloromethane	ND	20 µg/Kg			
25 Tetrachloroethene	ND	20 µg/Kg			

Sample results were calculated on a wet weight basis.
ND = Not Detected

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: 2090-1970-01/Grimmit Auto

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR11120611-04A
Client I.D. Number: CPT-1-49

Sampled: 12/02/11 16:56
Received: 12/06/11
Extracted: 12/07/11
Analyzed: 12/07/11

Volatile Organics by GC/MS EPA Method 624/SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	2.0 µg/L	26 1,1,2-Trichloroethane	ND	1.0 µg/L
2 Vinyl chloride	ND	1.0 µg/L	27 Toluene	ND	0.50 µg/L
3 Chloroethane	ND	1.0 µg/L	28 Dibromochloromethane	ND	1.0 µg/L
4 Bromomethane	ND	2.0 µg/L	29 1,2-Dibromoethane (EDB)	ND	2.0 µg/L
5 Trichlorofluoromethane	ND	1.0 µg/L	30 Tetrachloroethene	49	1.0 µg/L
6 1,1-Dichloroethene	ND	1.0 µg/L	31 Chlorobenzene	ND	1.0 µg/L
7 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	32 Ethylbenzene	ND	0.50 µg/L
8 Dichloromethane	ND	2.0 µg/L	33 m,p-Xylene	ND	0.50 µg/L
9 trans-1,2-Dichloroethene	ND	1.0 µg/L	34 Bromoform	ND	1.0 µg/L
10 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	35 o-Xylene	ND	0.50 µg/L
11 1,1-Dichloroethane	ND	1.0 µg/L	36 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
12 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	37 1,3-Dichlorobenzene	ND	1.0 µg/L
13 cis-1,2-Dichloroethene	ND	1.0 µg/L	38 1,4-Dichlorobenzene	ND	1.0 µg/L
14 Chloroform	ND	1.0 µg/L	39 1,2-Dichlorobenzene	ND	1.0 µg/L
15 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L			
16 1,2-Dichloroethane	ND	1.0 µg/L			
17 1,1,1-Trichloroethane	ND	1.0 µg/L			
18 Carbon tetrachloride	ND	1.0 µg/L			
19 Benzene	ND	0.50 µg/L			
20 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L			
21 1,2-Dichloropropane	ND	1.0 µg/L			
22 Trichloroethene	9.0	1.0 µg/L			
23 Bromodichloromethane	ND	1.0 µg/L			
24 cis-1,3-Dichloropropene	ND	1.0 µg/L			
25 trans-1,3-Dichloropropene	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchen

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Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples

PS

12/13/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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VOC Sample Preservation Report

Work Order: STR11120611

Job: 2090-1970-01/Grimmit Auto

Alpha's Sample ID	Client's Sample ID	Matrix	pH
11120611-04A	CPT-1-49	Aqueous	2

12/13/11
Report Date



Alpha Analytical, Inc.

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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

Method Blank		Type: MBLK	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MMS11\DATA\111207\11120709.D			Batch ID: 27851		Analysis Date: 12/07/2011 15:55					
Sample ID: MBLK-27851	Units: µg/L		Run ID: MSD_11_111207A		Prep Date: 12/07/2011 12:14					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methanol	ND	5000								
Ethanol	ND	5000								
Surr: Hexafluoro-2-propanol	458		500		92	61	134			

Laboratory Control Spike

Laboratory Control Spike		Type: LCS	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MMS11\DATA\111207\11120705.D			Batch ID: 27851		Analysis Date: 12/07/2011 14:34					
Sample ID: LCS-27851	Units: µg/L		Run ID: MSD_11_111207A		Prep Date: 12/07/2011 12:14					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methanol	227	50	250		91	44	145			
Ethanol	294	5	250		118	62	150			
Surr: Hexafluoro-2-propanol	485		500		97	61	134			

Sample Matrix Spike

Sample Matrix Spike		Type: MS	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MMS11\DATA\111207\11120707.D			Batch ID: 27851		Analysis Date: 12/07/2011 15:14					
Sample ID: 11120611-04AMS	Units: µg/L		Run ID: MSD_11_111207A		Prep Date: 12/07/2011 12:14					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methanol	248	50	250	0	99	33	159			
Ethanol	292	5	250	0	117	56	153			
Surr: Hexafluoro-2-propanol	496		500		99	61	134			

Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type: MSD	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MMS11\DATA\111207\11120708.D			Batch ID: 27851		Analysis Date: 12/07/2011 15:34					
Sample ID: 11120611-04AMSD	Units: µg/L		Run ID: MSD_11_111207A		Prep Date: 12/07/2011 12:14					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methanol	225	50	250	0	90	33	159	248.1	10.0(28)	
Ethanol	277	5	250	0	111	56	153	292.3	5.6(40)	
Surr: Hexafluoro-2-propanol	489		500		98	61	134			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
14-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

Type: **MBLK** Test Code: **EPA Method 1664A**
File ID: Batch ID: **W1213OG** Analysis Date: **12/13/2011 00:00**
Sample ID: **MBLK-W1213OG** Units: **µg/L** Run ID: **WETLAB_111213B** Prep Date: **12/13/2011 00:00**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Oil & Grease, HEM ND 5000

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 1664A**
File ID: Batch ID: **W1213OG** Analysis Date: **12/13/2011 00:00**
Sample ID: **LCS-W1213OG** Units: **µg/L** Run ID: **WETLAB_111213B** Prep Date: **12/13/2011 00:00**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Oil & Grease, HEM 39000 5000 40000 98 78 114

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 1664A**
File ID: Batch ID: **W1213OG** Analysis Date: **12/13/2011 00:00**
Sample ID: **11120611-04AMS** Units: **µg/L** Run ID: **WETLAB_111213B** Prep Date: **12/13/2011 00:00**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Oil & Grease, HEM 39200 5000 40000 0 98 78 114

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

HEM = Hexane Extractable Material

Reported in micrograms per Liter, per client request.



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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

File ID: 11120638.D

Type: MBLK Test Code: EPA Method SW8015B/C

Batch ID: MS15S7838B

Analysis Date: 12/06/2011 23:04

Sample ID: MBLK MS15S7838A

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/06/2011 23:04

Analyte

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	1000								
Surr: 1,2-Dichloroethane-d4	190		200		95	70	130			
Surr: Toluene-d8	209		200		105	70	130			
Surr: 4-Bromofluorobenzene	188		200		94	70	130			

Laboratory Control Spike

File ID: 11120643.D

Type: LCS Test Code: EPA Method SW8015B/C

Batch ID: MS15S7838B

Analysis Date: 12/07/2011 00:51

Sample ID: GLCS MS15S7838B

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/07/2011 00:51

Analyte

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	16200	2000	16000		101	63	148			
Surr: 1,2-Dichloroethane-d4	365		400		91	70	130			
Surr: Toluene-d8	413		400		103	70	130			
Surr: 4-Bromofluorobenzene	371		400		93	70	130			

Sample Matrix Spike

File ID: 11120644.D

Type: MS Test Code: EPA Method SW8015B/C

Batch ID: MS15S7838B

Analysis Date: 12/07/2011 01:13

Sample ID: 11120522-05AGS

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/07/2011 01:13

Analyte

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	17200	2000	16000	0	107	35	166			
Surr: 1,2-Dichloroethane-d4	367		400		92	70	130			
Surr: Toluene-d8	426		400		107	70	130			
Surr: 4-Bromofluorobenzene	368		400		92	70	130			

Sample Matrix Spike Duplicate

File ID: 11120645.D

Type: MSD Test Code: EPA Method SW8015B/C

Batch ID: MS15S7838B

Analysis Date: 12/07/2011 01:34

Sample ID: 11120522-05AGSD

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/07/2011 01:34

Analyte

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	20300	2000	16000	0	127	35	166	17160	16.7(33)	
Surr: 1,2-Dichloroethane-d4	369		400		92	70	130			
Surr: Toluene-d8	411		400		103	70	130			
Surr: 4-Bromofluorobenzene	367		400		92	70	130			

Comments:

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Reported in micrograms per Kilogram, per client request.



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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

File ID: 11120704.D

Type: MBLK

Test Code: EPA Method SW8015B/C

Sample ID: MBLK MS12W1207B

Units: µg/L

Batch ID: MS12W1207B

Analysis Date: 12/07/2011 14:24

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 14:24

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

ND

50

Surr: 1,2-Dichloroethane-d4

9.76

10

98

70

130

Surr: Toluene-d8

10.4

10

104

70

130

Surr: 4-Bromofluorobenzene

9.59

10

96

70

130

Laboratory Control Spike

File ID: 11120702.D

Type: LCS

Test Code: EPA Method SW8015B/C

Sample ID: GLCS MS12W1207B

Units: µg/L

Batch ID: MS12W1207B

Analysis Date: 12/07/2011 13:38

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 13:38

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

420

50

400

105

70

130

Surr: 1,2-Dichloroethane-d4

9.72

10

97

70

130

Surr: Toluene-d8

10.1

10

101

70

130

Surr: 4-Bromofluorobenzene

10.4

10

104

70

130

Sample Matrix Spike

File ID: 11120718.D

Type: MS

Test Code: EPA Method SW8015B/C

Sample ID: 11120521-01AGS

Units: µg/L

Batch ID: MS12W1207B

Analysis Date: 12/07/2011 20:02

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 20:02

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

2150

250

2000

0

108

51

144

Surr: 1,2-Dichloroethane-d4

48.6

50

97

70

130

Surr: Toluene-d8

50.8

50

102

70

130

Surr: 4-Bromofluorobenzene

55.4

50

111

70

130

Sample Matrix Spike Duplicate

File ID: 11120719.D

Type: MSD

Test Code: EPA Method SW8015B/C

Sample ID: 11120521-01AGSD

Units: µg/L

Batch ID: MS12W1207B

Analysis Date: 12/07/2011 20:25

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 20:25

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

2030

250

2000

0

101

51

144

2154

6.0(29)

Surr: 1,2-Dichloroethane-d4

48.5

50

97

70

130

Surr: Toluene-d8

51

50

102

70

130

Surr: 4-Bromofluorobenzene

53.3

50

107

70

130

Comments:

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Reported in micrograms per Liter, per client request.



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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8260B**

File ID: **11120638.D**

Batch ID: **MS15S7838A**

Analysis Date: **12/06/2011 23:04**

Sample ID: **MBLK MS15S7838A**

Units: **µg/Kg**

Run ID: **MSD_15_111206D**

Prep Date: **12/06/2011 23:04**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	40								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
Methyl tert-butyl ether (MTBE)	ND	5								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								
Surr: 1,2-Dichloroethane-d4	190		200		95	70	130			
Surr: Toluene-d8	209		200		105	70	130			
Surr: 4-Bromofluorobenzene	188		200		94	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8260B**

File ID: **11120640.D**

Batch ID: **MS15S7838A**

Analysis Date: **12/06/2011 23:47**

Sample ID: **LCS MS15S7838A**

Units: **µg/Kg**

Run ID: **MSD_15_111206D**

Prep Date: **12/06/2011 23:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	180	20	400		45	10	132			
Methyl tert-butyl ether (MTBE)	444	10	400		111	61	147			
Benzene	403	10	400		101	70	138			
Trichloroethene	467	20	400		117	70	150			
Toluene	426	10	400		106	70	137			
Chlorobenzene	395	20	400		99	10	137			
Ethylbenzene	426	10	400		107	70	138			
m,p-Xylene	431	10	400		108	70	145			
o-Xylene	433	10	400		108	70	145			
Surr: 1,2-Dichloroethane-d4	409		400		102	70	130			
Surr: Toluene-d8	427		400		107	70	130			
Surr: 4-Bromofluorobenzene	424		400		106	70	130			



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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Sample Matrix Spike

Type: MS

Test Code: EPA Method SW8260B

File ID: 11120641.D

Batch ID: MS15S7838A

Analysis Date: 12/07/2011 00:08

Sample ID: 11120522-05AMS

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/07/2011 00:08

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	201	20	400	0	50	10	132			
Methyl tert-butyl ether (MTBE)	460	10	400	0	115	42	157			
Benzene	430	10	400	0	107	53	150			
Trichloroethene	493	20	400	0	123	48	165			
Toluene	445	10	400	0	111	51	149			
Chlorobenzene	434	20	400	0	109	51	147			
Ethylbenzene	465	10	400	0	116	54	150			
m,p-Xylene	453	10	400	0	113	50	161			
o-Xylene	453	10	400	0	113	35	177			
Surr: 1,2-Dichloroethane-d4	396		400		99	70	130			
Surr: Toluene-d8	414		400		104	70	130			
Surr: 4-Bromofluorobenzene	402		400		100	70	130			

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW8260B

File ID: 11120642.D

Batch ID: MS15S7838A

Analysis Date: 12/07/2011 00:30

Sample ID: 11120522-05AMSD

Units: µg/Kg

Run ID: MSD_15_111206D

Prep Date: 12/07/2011 00:30

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	176	20	400	0	44	10	132	201.2	13.4(40)	
Methyl tert-butyl ether (MTBE)	439	10	400	0	110	42	157	460.1	4.8(32)	
Benzene	401	10	400	0	100	53	150	429.7	6.9(26)	
Trichloroethene	453	20	400	0	113	48	165	492.6	8.3(26)	
Toluene	419	10	400	0	105	51	149	444.9	6.1(26)	
Chlorobenzene	403	20	400	0	101	51	147	434.2	7.5(40)	
Ethylbenzene	431	10	400	0	108	54	150	465	7.6(29)	
m,p-Xylene	422	10	400	0	105	50	161	452.6	7.1(38)	
o-Xylene	422	10	400	0	105	35	177	452.9	7.1(40)	
Surr: 1,2-Dichloroethane-d4	401		400		100	70	130			
Surr: Toluene-d8	422		400		106	70	130			
Surr: 4-Bromofluorobenzene	403		400		101	70	130			

Comments:

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Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Method Blank

Type: MBLK Test Code: EPA Method 624/SW8260B

File ID: 11120704.D

Batch ID: MS12W1207A

Analysis Date: 12/07/2011 14:24

Sample ID: MBLK MS12W1207A

Units: µg/L

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 14:24

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	2								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Tertiary Butyl Alcohol (TBA)	ND	10								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
Methyl tert-butyl ether (MTBE)	ND	0.5								
1,1-Dichloroethane	ND	1								
Di-isopropyl Ether (DIPE)	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
1,2-Dibromoethane (EDB)	ND	2								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								
Surr: 1,2-Dichloroethane-d4	9.76		10		98	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	9.59		10		96	70	130			

Laboratory Control Spike

Type: LCS Test Code: EPA Method 624/SW8260B

File ID: 11120703.D

Batch ID: MS12W1207A

Analysis Date: 12/07/2011 14:01

Sample ID: LCS MS12W1207A

Units: µg/L

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 14:01

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	11	1	10		110	80	120			
Methyl tert-butyl ether (MTBE)	10.3	0.5	10		103	65	140			
Benzene	11	0.5	10		110	70	130			
Trichloroethene	10.8	1	10		108	65	144			
Toluene	10.6	0.5	10		106	80	120			
Chlorobenzene	10.5	1	10		105	70	130			
Ethylbenzene	10	0.5	10		100	80	120			
m,p-Xylene	10.7	0.5	10		107	70	130			
o-Xylene	9.96	0.5	10		99.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.61		10		96	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	10.4		10		104	70	130			



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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-11

QC Summary Report

Work Order:
11120611

Sample Matrix Spike

File ID: 11120716.D

Type: MS

Test Code: EPA Method 624/SW8260B

Sample ID: 11120521-01AMS

Units : µg/L

Batch ID: MS12W1207A

Analysis Date: 12/07/2011 19:16

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 19:16

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	55.8	2.5	50	0	112	64	130			
Methyl tert-butyl ether (MTBE)	55	1.3	50	0	110	47	150			
Benzene	55.8	1.3	50	0	112	59	138			
Trichloroethene	53	2.5	50	0	106	65	144			
Toluene	52.3	1.3	50	0	105	68	130			
Chlorobenzene	52.5	2.5	50	0	105	70	130			
Ethylbenzene	49.4	1.3	50	0	99	68	130			
m,p-Xylene	50.9	1.3	50	0	102	68	131			
o-Xylene	49.2	1.3	50	0	98	70	130			
Surr: 1,2-Dichloroethane-d4	50.6		50		101	70	130			
Surr: Toluene-d8	50.5		50		101	70	130			
Surr: 4-Bromofluorobenzene	52.4		50		105	70	130			

Sample Matrix Spike Duplicate

File ID: 11120717.D

Type: MSD

Test Code: EPA Method 624/SW8260B

Sample ID: 11120521-01AMSD

Units : µg/L

Batch ID: MS12W1207A

Analysis Date: 12/07/2011 19:39

Run ID: MSD_12_111207A

Prep Date: 12/07/2011 19:39

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	56.1	2.5	50	0	112	64	130	55.78	0.6(21)	
Methyl tert-butyl ether (MTBE)	55.6	1.3	50	0	111	47	150	55	1.1(40)	
Benzene	56.1	1.3	50	0	112	59	138	55.81	0.5(21)	
Trichloroethene	53.8	2.5	50	0	108	65	144	53.01	1.5(20)	
Toluene	52.9	1.3	50	0	106	68	130	52.28	1.1(20)	
Chlorobenzene	52.7	2.5	50	0	105	70	130	52.52	0.4(20)	
Ethylbenzene	49.7	1.3	50	0	99	68	130	49.37	0.7(20)	
m,p-Xylene	51.4	1.3	50	0	103	68	131	50.93	0.8(20)	
o-Xylene	49.2	1.3	50	0	98	70	130	49.15	0.0(20)	
Surr: 1,2-Dichloroethane-d4	49.4		50		99	70	130			
Surr: Toluene-d8	50.4		50		101	70	130			
Surr: 4-Bromofluorobenzene	52.4		50		105	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 13, 2011

CLS Work Order #: CUL0244
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: STR11120611

Enclosed are the results of analyses for samples received by the laboratory on 12/07/11 10:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

Page 1 of 4

12/13/11 07:53

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: STR11120611
Project Number: [none]
Project Manager: Reyna Vallejo

CLS Work Order #: CUL0244
COC #:

Alpha Analytical, Inc.

255 Glendale Ave., Suite 21
Sparks, Nevada 89431
Phone: (775) 338-4144
Fax: (775) 338-4146

Subcontractor:

CLD Labs
5260 Fitzgerald Rd.

Rancho Cordova, CA 95742

SUB CHAIN-OF-CUSTODY RECORD

Work Order #: STR11120611

Please reference the Work Order number on all reports and invoices.
Also please include the date of analysis and detection limits.
Please send the report to Alpha Analytical (Sparks).
Attention To Reyna Vallejo (reyna@alpha-analytical.com)

TEL: (775) 638-7301

FAX: (775) 638-4510

AGC#

Report Due By : 5:00 PM
On : 14-Dec-11

Required QC:
Final Rpt. MBLIC LCS, MBLMSD With Subrogates

Sampled by: Allan Dudding

06-Dec-11

Alpha Sample ID	Client's Sample ID	Matrix	Concentration	Type / # of Substrates	Requested Tests	Sample Comments
STR11120611-001	077-446	Soil	100000	Soil (1)	APP Method 1034A Cd and Cr 600 SE	
STR11120611-002	077-446	Soil	100000	Soil (1)	APP Method 1034A	
STR11120611-003	077-446	Soil	100000	Soil (1)	APP Method 1034A	

Comments: (0 of 255)

Released by: <i>[Signature]</i>	Date/Time: 12-13-11 10:30	Received by: <i>[Signature]</i>	Date/Time: 12-13-11 10:30
Requisitioned by:		Received by:	12-13-11 7:20

CALIFORNIA LABORATORY SERVICES

Page 2 of 4

12/13/11 07:53

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: STR1120611 Project Number: [none] Project Manager: Reyna Vallejo	CLS Work Order #: CUL0244 COC #:
--	---	-------------------------------------

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR1120611-01A (CPT-1-35) (CUL0244-01) Soil Sampled: 12/02/11 15:41 Received: 12/07/11 10:30									
Hexane Extractable Material (HEM, Oil & Grease)	ND	50	mg/kg	1	CU08840	12/07/11	12/07/11	EPA 1664A	
STR1120611-02A (CPT-1-40) (CUL0244-02) Soil Sampled: 12/02/11 15:56 Received: 12/07/11 10:30									
Hexane Extractable Material (HEM, Oil & Grease)	ND	50	mg/kg	1	CU08840	12/07/11	12/07/11	EPA 1664A	
STR1120611-03A (CPT-1-45) (CUL0244-03) Soil Sampled: 12/02/11 16:28 Received: 12/07/11 10:30									
Hexane Extractable Material (HEM, Oil & Grease)	ND	50	mg/kg	1	CU08840	12/07/11	12/07/11	EPA 1664A	

CA DOHS ELAP Accreditation/Registration Number 1233

CALIFORNIA LABORATORY SERVICES

Page 3 of 4

12/13/11 07:53

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: STR1120611 Project Number: [none] Project Manager: Reyna Vallejo	CLS Work Order #: CUL0244 COC #:
--	---	-------------------------------------

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU08840 - Solvent Extract										
Blank (CU08840-BLK1)										
Prepared & Analyzed: 12/07/11										
Hexane Extractable Material (HEM, Oil & Grease)	ND	50	mg/kg							
LCS (CU08840-BS1)										
Prepared & Analyzed: 12/07/11										
Hexane Extractable Material (HEM, Oil & Grease)	935	50	mg/kg	1000		94	80-120			
LCS Dup (CU08840-BSD1)										
Prepared & Analyzed: 12/07/11										
Hexane Extractable Material (HEM, Oil & Grease)	965	50	mg/kg	1000		96	80-120	3	20	
Matrix Spike (CU08840-MS1)										
Source: CUL0171-16 Prepared & Analyzed: 12/07/11										
Hexane Extractable Material (HEM, Oil & Grease)	615	50	mg/kg	1000	ND	62	75-125			QM-7
Matrix Spike Dup (CU08840-MSD1)										
Source: CUL0171-16 Prepared & Analyzed: 12/07/11										
Hexane Extractable Material (HEM, Oil & Grease)	610	50	mg/kg	1000	ND	61	75-125	0.8	25	QM-7

CA DOHS ELAP Accreditation/Registration Number 1233

CALIFORNIA LABORATORY SERVICES

Page 4 of 4

12/13/11 07:53

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: STR11120611
Project Number: [none]
Project Manager: Reyna Vallejo

CLS Work Order #: CUL0244
COC #:

Notes and Definitions

- QM-7 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

CA DOHS ELAP Accreditation/Registration Number 1233

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

WorkOrder : STR1120611

Report Due By : 5:00 PM On : 13-Dec-11

Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental
 3330 Cameron Park Drive
 Suite 550
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Allan Dudding

PO :

Client's COC # : 57397

Job : 2090-1970-01/Grimmit Auto

Cooler Temp

Samples Received

Date Printed

2 °C

06-Dec-11

06-Dec-11

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests							Sample Remarks
				Alpha	Sub	TAT	ALCOHOL_W	OG_HEM_S	OG_HEM_W	TPH/P_S	TPH/P_W	VOC_S	VOC_W	
STR1120611-01A	CPT-1-35	SO	12/02/11 15:41	1	1	5		SUB		GAS-C		8010/BTEX/MTBE		
STR1120611-02A	CPT-1-40	SO	12/02/11 15:56	1	1	5		SUB		GAS-C		8010/BTEX/MTBE		
STR1120611-03A	CPT-1-45	SO	12/02/11 16:28	1	1	5		SUB		GAS-C		8010/BTEX/MTBE		
STR1120611-04A	CPT-1-49	AQ	12/02/11 16:56	5	0	5	MeOH / EtOH		X		GAS-C		8010/8020/OXYS/EDB	

Comments: Security seals intact. Frozen Ice. Oil and Grease soil subbed to CLS. Split was made in lab in order to sub that analysis out. :


Signature	Print Name	Company	Date/Time
	Cheryl Gamble	Alpha Analytical, Inc.	12/6/11 14:40

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

Company Name Stratus Env.
 Attn: _____
 Address _____
 City, State, Zip _____
 Phone Number _____ Fax _____



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?

AZ _____ CA NV _____ WA _____ DOD Site _____
 ID _____ OR _____ OTHER _____ Page # 1 of 1

Consultant / Client Name				Job #		Job Name		Analyses Required						Data Validation Level: III or IV			
Grimmit Auto				2090-1970-01		Grimmit Auto											
Address				Report Attention / Project Manager													
1970 Seminary Ave.				Name: <u>Scott Bittinger</u>													
City, State, Zip				Email: _____													
Oakland CA				Phone: _____ Mobile: _____													
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered	# Containers**	GRD	BTX, SOX, 1,2-DCA, EDB	Ethanol, Methylsul	HVOL (8260)	O.I. + Grease	BTX, MTBE	Global ID #	REMARKS
1541	12/2	AQ	SO	-01A		CPT-1-35	Std			X			X	X	X		
1556				STR1120611	-02A	CPT-1-40				X			X	X	X		
1628					-03A	CPT-1-45				X			X	X	X		
1656	12/2	AQ		LAB	-04A	CPT-1-49	Std			X	X	X	X	X			
										X	X	X	X	X			

ADDITIONAL INSTRUCTIONS:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled By: Allen D. Kelly

Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date: 12/5/11	Time: 11:45
<u>[Signature]</u>	<u>[Signature]</u>	Date: 12/6/11	Time: 13:07
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:
	<u>Alpha</u>		

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

12/19/2011

Mr. Allan Dudding
Stratus Environmental, Inc.
3330 Cameron Park Drive
Suite 550
Cameron Park CA 95682-8861

Project Name: Grimit Auto Repair
Project #: 2090-1970-01
Workorder #: 1112286B

Dear Mr. Allan Dudding

The following report includes the data for the above referenced project for sample(s) received on 12/14/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

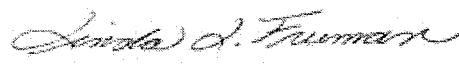
WORK ORDER #: 1112286B

Work Order Summary

CLIENT:	Mr. Allan Dudding Stratus Environmental, Inc. 3330 Cameron Park Drive Suite 550 Cameron Park, CA 95682-8861	BILL TO:	Mr. Allan Dudding Stratus Environmental, Inc. 3330 Cameron Park Drive Suite 550 Cameron Park, CA 95682-8861
PHONE:	530-676-6004	P.O. #	110911-1970-01
FAX:	530-676-6005	PROJECT #	2090-1970-01 Gritmit Auto Repair
DATE RECEIVED:	12/14/2011	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/19/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SV-1A	Modified ASTM D-1946	5.5 "Hg	5 psi
02A	SV-1B	Modified ASTM D-1946	6.0 "Hg	5 psi
03A	SV-2A	Modified ASTM D-1946	6.0 "Hg	5 psi
04A	SV-3A	Modified ASTM D-1946	8.0 "Hg	5 psi
05A	SV-3B	Modified ASTM D-1946	6.5 "Hg	5 psi
06A	Lab Blank	Modified ASTM D-1946	NA	NA
07A	LCS	Modified ASTM D-1946	NA	NA
07AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 12/19/11

Certification numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
 NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
 Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified ASTM D-1946
Stratus Environmental, Inc.
Workorder# 1112286B**

Five 1 Liter Summa Canister samples were received on December 14, 2011. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

Client Sample ID: SV-1A

Lab ID#: 1112286B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	20
Carbon Dioxide	0.016	0.75

Client Sample ID: SV-1B

Lab ID#: 1112286B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	20
Carbon Dioxide	0.017	0.83

Client Sample ID: SV-2A

Lab ID#: 1112286B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	18
Carbon Dioxide	0.017	1.2

Client Sample ID: SV-3A

Lab ID#: 1112286B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	19
Carbon Dioxide	0.018	1.7

Client Sample ID: SV-3B

Lab ID#: 1112286B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	18
Carbon Dioxide	0.017	1.8



Client Sample ID: SV-1A

Lab ID#: 1112286B-01A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121411	Date of Collection: 12/13/11 10:54:00 A
Dil. Factor:	1.64	Date of Analysis: 12/14/11 04:14 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	20
Methane	0.00016	Not Detected
Carbon Dioxide	0.016	0.75

Container Type: 1 Liter Summa Canister



Client Sample ID: SV-1B

Lab ID#: 1112286B-02A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121412	Date of Collection: 12/13/11 11:23:00 A
Dil. Factor:	1.68	Date of Analysis: 12/14/11 05:17 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	20
Methane	0.00017	Not Detected
Carbon Dioxide	0.017	0.83

Container Type: 1 Liter Summa Canister



Client Sample ID: SV-2A

Lab ID#: 1112286B-03A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121413	Date of Collection:	12/13/11 12:28:00 P
Dil. Factor:	1.68	Date of Analysis:	12/14/11 05:39 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	18
Methane	0.00017	Not Detected
Carbon Dioxide	0.017	1.2

Container Type: 1 Liter Summa Canister



Client Sample ID: SV-3A

Lab ID#: 1112286B-04A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121414	Date of Collection:	12/13/11 1:11:00 PM
Dil. Factor:	1.83	Date of Analysis:	12/14/11 06:06 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	19
Methane	0.00018	Not Detected
Carbon Dioxide	0.018	1.7

Container Type: 1 Liter Summa Canister



Client Sample ID: SV-3B

Lab ID#: 1112286B-05A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121415	Date of Collection:	12/13/11 1:49:00 PM
Dil. Factor:	1.71	Date of Analysis:	12/14/11 06:29 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	18
Methane	0.00017	Not Detected
Carbon Dioxide	0.017	1.8

Container Type: 1 Liter Summa Canister



Client Sample ID: Lab Blank

Lab ID#: 1112286B-06A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/14/11 10:28 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: LCS

Lab ID#: 1112286B-07A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/14/11 09:32 AM

Compound	%Recovery
Oxygen	100
Methane	98
Carbon Dioxide	101

Container Type: NA - Not Applicable



Client Sample ID: LCSD

Lab ID#: 1112286B-07AA

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9121423	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/14/11 09:48 PM

Compound	%Recovery
Oxygen	100
Methane	98
Carbon Dioxide	101

Container Type: NA - Not Applicable



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Scott Bittinger
 Collected by: (Print and Sign) Allen Dudding
 Company Stratus Environmental, Inc. Email s.bittinger@stratusinc.com
 Address 3330 Cameron Park Dr. #550 City Cameron Park State CA Zip 95682
 Phone 530-676-2062 Fax 530-676-6005

Project Info:	Turn Around Time:	Lab Use Only
	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	Pressurized by: Date: Pressurization Gas: N ₂ He
P.O. # _____		
Project # <u>2090-1970-01</u>		
Project Name <u>Grm it Auto Repair</u>		

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	SV-1A	34634	12/13/11	1054	TO-15: GRO, BTEX,	-29	-7		
02A	SV-1B	14523		1123	MTBE, ETBE, TAME, DEPE,	-28.5	-7		
03A	SV-2A	34622		1228	TBA, EDB, 1,2-DCA,	28.5	-7		
04A	SV-3A	34097		1311	Naphthalene,	-17*	-7		
05A	SV-3B	35676		1349	Standard List VOCs, 1,1-DFA, D-1946: O ₂ , CO ₂ , CH ₄	-29	-7		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>12/14/11 0900</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>12/14/11 0900</u>	Notes: Max Cold #100479 has a malfunctioning pressure gauge.
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name <u>EVAD Red</u>	Air Bill # _____	Temp (°C) <u>N/A</u>	Condition <u>(Seal)</u>	Custody Seals Intact? Yes No <u>(None)</u>	Work Order # <u>1112236</u>
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12/22/2011

Mr. Allan Dudding
Stratus Environmental, Inc.
3330 Cameron Park Drive
Suite 550
Cameron Park CA 95682-8861

Project Name: Grimit Auto Repair
Project #: 2090-1970-01
Workorder #: 1112286AR1

Dear Mr. Allan Dudding

The following report includes the data for the above referenced project for sample(s) received on 12/14/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



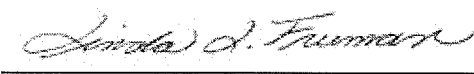
Kelly Buettner
Project Manager

WORK ORDER #: 1112286AR1

Work Order Summary

CLIENT:	Mr. Allan Dudding Stratus Environmental, Inc. 3330 Cameron Park Drive Suite 550 Cameron Park, CA 95682-8861	BILL TO:	Mr. Allan Dudding Stratus Environmental, Inc. 3330 Cameron Park Drive Suite 550 Cameron Park, CA 95682-8861
PHONE:	530-676-6004	P.O. #	110911-1970-01
FAX:	530-676-6005	PROJECT #	2090-1970-01 Gritmit Auto Repair
DATE RECEIVED:	12/14/2011	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/22/2011		
DATE REISSUED:	12/22/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SV-1A	Modified TO-15	5.5 "Hg	5 psi
02A	SV-1B	Modified TO-15	6.0 "Hg	5 psi
03A	SV-2A	Modified TO-15	6.0 "Hg	5 psi
04A	SV-3A	Modified TO-15	8.0 "Hg	5 psi
05A	SV-3B	Modified TO-15	6.5 "Hg	5 psi
06A	Lab Blank	Modified TO-15	NA	NA
07A	CCV	Modified TO-15	NA	NA
08A	LCS	Modified TO-15	NA	NA
08AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 
 Laboratory Director

DATE: 12/22/11

Certification numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
 NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
 Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Stratus Environmental, Inc.
Workorder# 1112286AR1**

Five 1 Liter Summa Canister samples were received on December 14, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

THE WORK ORDER WAS RE-ISSUED ON DECEMBER 22, 2011 TO REPORT ADDITIONAL COMPOUNDS REQUIRED FOR THE PROJECT.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV and/or LCS.
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-1A

Lab ID#: 1112286AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.82	2.3	3.1	8.6
Tetrachloroethene	0.82	97	5.6	660
Chlorobenzene	0.82	2.6	3.8	12
Acetone	3.3	5.7	7.8	14

Client Sample ID: SV-1B

Lab ID#: 1112286AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.84	3.5	3.2	13
Tetrachloroethene	0.84	72	5.7	490
Chlorobenzene	0.84	3.8	3.9	17
Acetone	3.4	4.9	8.0	12

Client Sample ID: SV-2A

Lab ID#: 1112286AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.84	7.6	4.7	43
Toluene	0.84	2.6	3.2	9.9
Tetrachloroethene	0.84	36	5.7	240
Chlorobenzene	0.84	2.0	3.9	9.1
Carbon Disulfide	3.4	13	10	42

Client Sample ID: SV-3A

Lab ID#: 1112286AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.92	2.0	3.4	7.6
Tetrachloroethene	0.92	24	6.2	160
Chlorobenzene	0.92	1.9	4.2	8.9



**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SV-3B

Lab ID#: 1112286AR1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.86	0.90	3.0	3.1
Benzene	0.86	2.1	2.7	6.7
Toluene	0.86	8.6	3.2	32
Tetrachloroethene	0.86	11	5.8	78
Chlorobenzene	0.86	6.6	3.9	30
m,p-Xylene	0.86	1.3	3.7	5.8
Acetone	3.4	7.3	8.1	17
Carbon Disulfide	3.4	23	11	72
2,2,4-Trimethylpentane	0.86	100	4.0	480
TPH ref. to Gasoline (MW=100)	43	2500	170	10000



Client Sample ID: SV-1A

Lab ID#: 1112286AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121731R1	Date of Collection:	12/13/11 10:54:00 A
Dil. Factor:	1.64	Date of Analysis:	12/17/11 09:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.82	Not Detected	4.0	Not Detected
Freon 114	0.82	Not Detected	5.7	Not Detected
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
Freon 11	0.82	Not Detected	4.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Chloroform	0.82	Not Detected	4.0	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Carbon Tetrachloride	0.82	Not Detected	5.2	Not Detected
Benzene	0.82	Not Detected	2.6	Not Detected
1,2-Dichloroethane	0.82	Not Detected	3.3	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
1,2-Dichloropropane	0.82	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.82	Not Detected	3.7	Not Detected
Toluene	0.82	2.3	3.1	8.6
trans-1,3-Dichloropropene	0.82	Not Detected	3.7	Not Detected
1,1,2-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Tetrachloroethene	0.82	97	5.6	660
1,2-Dibromoethane (EDB)	0.82	Not Detected	6.3	Not Detected
Chlorobenzene	0.82	2.6	3.8	12
Ethyl Benzene	0.82	Not Detected	3.6	Not Detected
m,p-Xylene	0.82	Not Detected	3.6	Not Detected
o-Xylene	0.82	Not Detected	3.6	Not Detected
Styrene	0.82	Not Detected	3.5	Not Detected
1,1,2,2-Tetrachloroethane	0.82	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	0.82	Not Detected	4.0	Not Detected
1,2,4-Trimethylbenzene	0.82	Not Detected	4.0	Not Detected
1,3-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
1,4-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
alpha-Chlorotoluene	0.82	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
1,3-Butadiene	0.82	Not Detected	1.8	Not Detected
Hexane	0.82	Not Detected	2.9	Not Detected
Cyclohexane	0.82	Not Detected	2.8	Not Detected
Heptane	0.82	Not Detected	3.4	Not Detected
Bromodichloromethane	0.82	Not Detected	5.5	Not Detected



Client Sample ID: SV-1A

Lab ID#: 1112286AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121731R1	Date of Collection:	12/13/11 10:54:00 A
Dil. Factor:	1.64	Date of Analysis:	12/17/11 09:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.82	Not Detected	7.0	Not Detected
Cumene	0.82	Not Detected	4.0	Not Detected
Propylbenzene	0.82	Not Detected	4.0	Not Detected
Chloromethane	3.3	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected
Acetone	3.3	5.7	7.8	14
Carbon Disulfide	3.3	Not Detected	10	Not Detected
2-Propanol	3.3	Not Detected	8.1	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.7	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
1,4-Dioxane	3.3	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.82	Not Detected	3.4	Not Detected
2-Hexanone	3.3	Not Detected	13	Not Detected
Bromoform	0.82	Not Detected	8.5	Not Detected
4-Ethyltoluene	0.82	Not Detected	4.0	Not Detected
Ethanol	3.3	Not Detected	6.2	Not Detected
Methyl tert-butyl ether	0.82	Not Detected	3.0	Not Detected
tert-Butyl alcohol	3.3	Not Detected	9.9	Not Detected
Ethyl-tert-butyl ether	3.3	Not Detected	14	Not Detected
Isopropyl ether	3.3	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.3	Not Detected	14	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
TPH ref. to Gasoline (MW=100)	41	Not Detected	170	Not Detected
1,1-Difluoroethane	3.3	Not Detected	8.9	Not Detected
Naphthalene	3.3	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: SV-1B

Lab ID#: 1112286AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121732R1	Date of Collection:	12/13/11 11:23:00 A
Dil. Factor:	1.68	Date of Analysis:	12/17/11 09:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.84	Not Detected	4.2	Not Detected
Freon 114	0.84	Not Detected	5.9	Not Detected
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
Freon 11	0.84	Not Detected	4.7	Not Detected
1,1-Dichloroethene	0.84	Not Detected	3.3	Not Detected
Freon 113	0.84	Not Detected	6.4	Not Detected
Methylene Chloride	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
Chloroform	0.84	Not Detected	4.1	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Carbon Tetrachloride	0.84	Not Detected	5.3	Not Detected
Benzene	0.84	Not Detected	2.7	Not Detected
1,2-Dichloroethane	0.84	Not Detected	3.4	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
1,2-Dichloropropane	0.84	Not Detected	3.9	Not Detected
cis-1,3-Dichloropropene	0.84	Not Detected	3.8	Not Detected
Toluene	0.84	3.5	3.2	13
trans-1,3-Dichloropropene	0.84	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Tetrachloroethene	0.84	72	5.7	490
1,2-Dibromoethane (EDB)	0.84	Not Detected	6.4	Not Detected
Chlorobenzene	0.84	3.8	3.9	17
Ethyl Benzene	0.84	Not Detected	3.6	Not Detected
m,p-Xylene	0.84	Not Detected	3.6	Not Detected
o-Xylene	0.84	Not Detected	3.6	Not Detected
Styrene	0.84	Not Detected	3.6	Not Detected
1,1,2,2-Tetrachloroethane	0.84	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	0.84	Not Detected	4.1	Not Detected
1,2,4-Trimethylbenzene	0.84	Not Detected	4.1	Not Detected
1,3-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
1,4-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
alpha-Chlorotoluene	0.84	Not Detected	4.3	Not Detected
1,2-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
1,3-Butadiene	0.84	Not Detected	1.8	Not Detected
Hexane	0.84	Not Detected	3.0	Not Detected
Cyclohexane	0.84	Not Detected	2.9	Not Detected
Heptane	0.84	Not Detected	3.4	Not Detected
Bromodichloromethane	0.84	Not Detected	5.6	Not Detected



Client Sample ID: SV-1B

Lab ID#: 1112286AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121732R1	Date of Collection:	12/13/11 11:23:00 A
Dil. Factor:	1.68	Date of Analysis:	12/17/11 09:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.84	Not Detected	7.2	Not Detected
Cumene	0.84	Not Detected	4.1	Not Detected
Propylbenzene	0.84	Not Detected	4.1	Not Detected
Chloromethane	3.4	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected
Hexachlorobutadiene	3.4	Not Detected	36	Not Detected
Acetone	3.4	4.9	8.0	12
Carbon Disulfide	3.4	Not Detected	10	Not Detected
2-Propanol	3.4	Not Detected	8.2	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	9.9	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
1,4-Dioxane	3.4	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.84	Not Detected	3.4	Not Detected
2-Hexanone	3.4	Not Detected	14	Not Detected
Bromoform	0.84	Not Detected	8.7	Not Detected
4-Ethyltoluene	0.84	Not Detected	4.1	Not Detected
Ethanol	3.4	Not Detected	6.3	Not Detected
Methyl tert-butyl ether	0.84	Not Detected	3.0	Not Detected
tert-Butyl alcohol	3.4	Not Detected	10	Not Detected
Ethyl-tert-butyl ether	3.4	Not Detected	14	Not Detected
Isopropyl ether	3.4	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.4	Not Detected	14	Not Detected
3-Chloropropene	3.4	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	42	Not Detected	170	Not Detected
1,1-Difluoroethane	3.4	Not Detected	9.1	Not Detected
Naphthalene	3.4	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: SV-2A

Lab ID#: 1112286AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121733R1	Date of Collection:	12/13/11 12:28:00 P
Dil. Factor:	1.68	Date of Analysis:	12/17/11 10:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.84	Not Detected	4.2	Not Detected
Freon 114	0.84	Not Detected	5.9	Not Detected
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
Freon 11	0.84	7.6	4.7	43
1,1-Dichloroethene	0.84	Not Detected	3.3	Not Detected
Freon 113	0.84	Not Detected	6.4	Not Detected
Methylene Chloride	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
Chloroform	0.84	Not Detected	4.1	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Carbon Tetrachloride	0.84	Not Detected	5.3	Not Detected
Benzene	0.84	Not Detected	2.7	Not Detected
1,2-Dichloroethane	0.84	Not Detected	3.4	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
1,2-Dichloropropane	0.84	Not Detected	3.9	Not Detected
cis-1,3-Dichloropropene	0.84	Not Detected	3.8	Not Detected
Toluene	0.84	2.6	3.2	9.9
trans-1,3-Dichloropropene	0.84	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Tetrachloroethene	0.84	36	5.7	240
1,2-Dibromoethane (EDB)	0.84	Not Detected	6.4	Not Detected
Chlorobenzene	0.84	2.0	3.9	9.1
Ethyl Benzene	0.84	Not Detected	3.6	Not Detected
m,p-Xylene	0.84	Not Detected	3.6	Not Detected
o-Xylene	0.84	Not Detected	3.6	Not Detected
Styrene	0.84	Not Detected	3.6	Not Detected
1,1,2,2-Tetrachloroethane	0.84	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	0.84	Not Detected	4.1	Not Detected
1,2,4-Trimethylbenzene	0.84	Not Detected	4.1	Not Detected
1,3-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
1,4-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
alpha-Chlorotoluene	0.84	Not Detected	4.3	Not Detected
1,2-Dichlorobenzene	0.84	Not Detected	5.0	Not Detected
1,3-Butadiene	0.84	Not Detected	1.8	Not Detected
Hexane	0.84	Not Detected	3.0	Not Detected
Cyclohexane	0.84	Not Detected	2.9	Not Detected
Heptane	0.84	Not Detected	3.4	Not Detected
Bromodichloromethane	0.84	Not Detected	5.6	Not Detected



Client Sample ID: SV-2A

Lab ID#: 1112286AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121733R1	Date of Collection:	12/13/11 12:28:00 P
Dil. Factor:	1.68	Date of Analysis:	12/17/11 10:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.84	Not Detected	7.2	Not Detected
Cumene	0.84	Not Detected	4.1	Not Detected
Propylbenzene	0.84	Not Detected	4.1	Not Detected
Chloromethane	3.4	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected
Hexachlorobutadiene	3.4	Not Detected	36	Not Detected
Acetone	3.4	Not Detected	8.0	Not Detected
Carbon Disulfide	3.4	13	10	42
2-Propanol	3.4	Not Detected	8.2	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	9.9	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
1,4-Dioxane	3.4	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.84	Not Detected	3.4	Not Detected
2-Hexanone	3.4	Not Detected	14	Not Detected
Bromoform	0.84	Not Detected	8.7	Not Detected
4-Ethyltoluene	0.84	Not Detected	4.1	Not Detected
Ethanol	3.4	Not Detected	6.3	Not Detected
Methyl tert-butyl ether	0.84	Not Detected	3.0	Not Detected
tert-Butyl alcohol	3.4	Not Detected	10	Not Detected
Ethyl-tert-butyl ether	3.4	Not Detected	14	Not Detected
Isopropyl ether	3.4	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.4	Not Detected	14	Not Detected
3-Chloropropene	3.4	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	42	Not Detected	170	Not Detected
1,1-Difluoroethane	3.4	Not Detected	9.1	Not Detected
Naphthalene	3.4	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: SV-3A

Lab ID#: 1112286AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121734R1	Date of Collection:	12/13/11 1:11:00 PM
Dil. Factor:	1.83	Date of Analysis:	12/17/11 10:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.92	Not Detected	4.5	Not Detected
Freon 114	0.92	Not Detected	6.4	Not Detected
Vinyl Chloride	0.92	Not Detected	2.3	Not Detected
Bromomethane	0.92	Not Detected	3.6	Not Detected
Chloroethane	3.7	Not Detected	9.6	Not Detected
Freon 11	0.92	Not Detected	5.1	Not Detected
1,1-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Freon 113	0.92	Not Detected	7.0	Not Detected
Methylene Chloride	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.92	Not Detected	3.7	Not Detected
cis-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Chloroform	0.92	Not Detected	4.5	Not Detected
1,1,1-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Carbon Tetrachloride	0.92	Not Detected	5.8	Not Detected
Benzene	0.92	Not Detected	2.9	Not Detected
1,2-Dichloroethane	0.92	Not Detected	3.7	Not Detected
Trichloroethene	0.92	Not Detected	4.9	Not Detected
1,2-Dichloropropane	0.92	Not Detected	4.2	Not Detected
cis-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
Toluene	0.92	2.0	3.4	7.6
trans-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Tetrachloroethene	0.92	24	6.2	160
1,2-Dibromoethane (EDB)	0.92	Not Detected	7.0	Not Detected
Chlorobenzene	0.92	1.9	4.2	8.9
Ethyl Benzene	0.92	Not Detected	4.0	Not Detected
m,p-Xylene	0.92	Not Detected	4.0	Not Detected
o-Xylene	0.92	Not Detected	4.0	Not Detected
Styrene	0.92	Not Detected	3.9	Not Detected
1,1,2,2-Tetrachloroethane	0.92	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,2,4-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,3-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,4-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
alpha-Chlorotoluene	0.92	Not Detected	4.7	Not Detected
1,2-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Hexane	0.92	Not Detected	3.2	Not Detected
Cyclohexane	0.92	Not Detected	3.1	Not Detected
Heptane	0.92	Not Detected	3.7	Not Detected
Bromodichloromethane	0.92	Not Detected	6.1	Not Detected



Client Sample ID: SV-3A

Lab ID#: 1112286AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121734R1	Date of Collection:	12/13/11 1:11:00 PM
Dil. Factor:	1.83	Date of Analysis:	12/17/11 10:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
Chloromethane	3.7	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	3.7	Not Detected	27	Not Detected
Hexachlorobutadiene	3.7	Not Detected	39	Not Detected
Acetone	3.7	Not Detected	8.7	Not Detected
Carbon Disulfide	3.7	Not Detected	11	Not Detected
2-Propanol	3.7	Not Detected	9.0	Not Detected
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	Not Detected	11	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
1,4-Dioxane	3.7	Not Detected	13	Not Detected
4-Methyl-2-pentanone	0.92	Not Detected	3.7	Not Detected
2-Hexanone	3.7	Not Detected	15	Not Detected
Bromoform	0.92	Not Detected	9.4	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
Ethanol	3.7	Not Detected	6.9	Not Detected
Methyl tert-butyl ether	0.92	Not Detected	3.3	Not Detected
tert-Butyl alcohol	3.7	Not Detected	11	Not Detected
Ethyl-tert-butyl ether	3.7	Not Detected	15	Not Detected
Isopropyl ether	3.7	Not Detected	15	Not Detected
tert-Amyl methyl ether	3.7	Not Detected	15	Not Detected
3-Chloropropene	3.7	Not Detected	11	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
TPH ref. to Gasoline (MW=100)	46	Not Detected	190	Not Detected
1,1-Difluoroethane	3.7	Not Detected	9.9	Not Detected
Naphthalene	3.7	Not Detected	19	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: SV-3B

Lab ID#: 1112286AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121735R1	Date of Collection:	12/13/11 1:49:00 PM
Dil. Factor:	1.71	Date of Analysis:	12/17/11 10:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.86	Not Detected	4.2	Not Detected
Freon 114	0.86	Not Detected	6.0	Not Detected
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Bromomethane	0.86	Not Detected	3.3	Not Detected
Chloroethane	3.4	Not Detected	9.0	Not Detected
Freon 11	0.86	Not Detected	4.8	Not Detected
1,1-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Freon 113	0.86	Not Detected	6.6	Not Detected
Methylene Chloride	0.86	0.90	3.0	3.1
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Chloroform	0.86	Not Detected	4.2	Not Detected
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Carbon Tetrachloride	0.86	Not Detected	5.4	Not Detected
Benzene	0.86	2.1	2.7	6.7
1,2-Dichloroethane	0.86	Not Detected	3.5	Not Detected
Trichloroethene	0.86	Not Detected	4.6	Not Detected
1,2-Dichloropropane	0.86	Not Detected	4.0	Not Detected
cis-1,3-Dichloropropene	0.86	Not Detected	3.9	Not Detected
Toluene	0.86	8.6	3.2	32
trans-1,3-Dichloropropene	0.86	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Tetrachloroethene	0.86	11	5.8	78
1,2-Dibromoethane (EDB)	0.86	Not Detected	6.6	Not Detected
Chlorobenzene	0.86	6.6	3.9	30
Ethyl Benzene	0.86	Not Detected	3.7	Not Detected
m,p-Xylene	0.86	1.3	3.7	5.8
o-Xylene	0.86	Not Detected	3.7	Not Detected
Styrene	0.86	Not Detected	3.6	Not Detected
1,1,2,2-Tetrachloroethane	0.86	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	0.86	Not Detected	4.2	Not Detected
1,2,4-Trimethylbenzene	0.86	Not Detected	4.2	Not Detected
1,3-Dichlorobenzene	0.86	Not Detected	5.1	Not Detected
1,4-Dichlorobenzene	0.86	Not Detected	5.1	Not Detected
alpha-Chlorotoluene	0.86	Not Detected	4.4	Not Detected
1,2-Dichlorobenzene	0.86	Not Detected	5.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Hexane	0.86	Not Detected	3.0	Not Detected
Cyclohexane	0.86	Not Detected	2.9	Not Detected
Heptane	0.86	Not Detected	3.5	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected



Client Sample ID: SV-3B

Lab ID#: 1112286AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121735R1	Date of Collection:	12/13/11 1:49:00 PM
Dil. Factor:	1.71	Date of Analysis:	12/17/11 10:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	Not Detected	4.2	Not Detected
Chloromethane	3.4	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected
Hexachlorobutadiene	3.4	Not Detected	36	Not Detected
Acetone	3.4	7.3	8.1	17
Carbon Disulfide	3.4	23	11	72
2-Propanol	3.4	Not Detected	8.4	Not Detected
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	10	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
1,4-Dioxane	3.4	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.86	Not Detected	3.5	Not Detected
2-Hexanone	3.4	Not Detected	14	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	Not Detected	4.2	Not Detected
Ethanol	3.4	Not Detected	6.4	Not Detected
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
tert-Butyl alcohol	3.4	Not Detected	10	Not Detected
Ethyl-tert-butyl ether	3.4	Not Detected	14	Not Detected
Isopropyl ether	3.4	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.4	Not Detected	14	Not Detected
3-Chloropropene	3.4	Not Detected	11	Not Detected
2,2,4-Trimethylpentane	0.86	100	4.0	480
TPH ref. to Gasoline (MW=100)	43	2500	170	10000
1,1-Difluoroethane	3.4	Not Detected	9.2	Not Detected
Naphthalene	3.4	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: Lab Blank

Lab ID#: 1112286AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121730a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/17/11 08:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1112286AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121730a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/17/11 08:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1112286AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 06:09 AM

Compound	%Recovery
Freon 12	116
Freon 114	108
Vinyl Chloride	96
Bromomethane	109
Chloroethane	96
Freon 11	117
1,1-Dichloroethene	98
Freon 113	101
Methylene Chloride	107
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	91
Chloroform	99
1,1,1-Trichloroethane	100
Carbon Tetrachloride	102
Benzene	90
1,2-Dichloroethane	102
Trichloroethene	90
1,2-Dichloropropane	90
cis-1,3-Dichloropropene	92
Toluene	90
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	96
Tetrachloroethene	98
1,2-Dibromoethane (EDB)	97
Chlorobenzene	96
Ethyl Benzene	99
m,p-Xylene	98
o-Xylene	101
Styrene	101
1,1,2,2-Tetrachloroethane	93
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	98
1,3-Butadiene	98
Hexane	95
Cyclohexane	97
Heptane	97
Bromodichloromethane	98



Client Sample ID: CCV

Lab ID#: 1112286AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 06:09 AM

Compound	%Recovery
Dibromochloromethane	104
Cumene	108
Propylbenzene	103
Chloromethane	101
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	106
Acetone	102
Carbon Disulfide	99
2-Propanol	101
trans-1,2-Dichloroethene	102
2-Butanone (Methyl Ethyl Ketone)	91
Tetrahydrofuran	91
1,4-Dioxane	89
4-Methyl-2-pentanone	91
2-Hexanone	99
Bromoform	106
4-Ethyltoluene	101
Ethanol	102
Methyl tert-butyl ether	106
tert-Butyl alcohol	96
Ethyl-tert-butyl ether	87
Isopropyl ether	90
tert-Amyl methyl ether	90
3-Chloropropene	93
2,2,4-Trimethylpentane	96
TPH ref. to Gasoline (MW=100)	100
1,1-Difluoroethane	114
Naphthalene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: LCS

Lab ID#: 1112286AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 07:54 AM

Compound	%Recovery
Freon 12	121
Freon 114	118
Vinyl Chloride	121
Bromomethane	122
Chloroethane	103
Freon 11	124
1,1-Dichloroethene	108
Freon 113	106
Methylene Chloride	95
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	92
Chloroform	102
1,1,1-Trichloroethane	106
Carbon Tetrachloride	113
Benzene	99
1,2-Dichloroethane	109
Trichloroethene	102
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	101
Toluene	98
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	102
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	105
Chlorobenzene	101
Ethyl Benzene	103
m,p-Xylene	104
o-Xylene	108
Styrene	107
1,1,2,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	101
1,3-Butadiene	112
Hexane	95
Cyclohexane	103
Heptane	103
Bromodichloromethane	108



Client Sample ID: LCS

Lab ID#: 1112286AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 07:54 AM

Compound	%Recovery
Dibromochloromethane	110
Cumene	113
Propylbenzene	110
Chloromethane	100
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	100
Acetone	97
Carbon Disulfide	115
2-Propanol	94
trans-1,2-Dichloroethene	111
2-Butanone (Methyl Ethyl Ketone)	95
Tetrahydrofuran	90
1,4-Dioxane	98
4-Methyl-2-pentanone	97
2-Hexanone	104
Bromoform	106
4-Ethyltoluene	101
Ethanol	92
Methyl tert-butyl ether	104
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	103
2,2,4-Trimethylpentane	94
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked
Naphthalene	77

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCSD

Lab ID#: 1112286AR1-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121708	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 08:26 AM

Compound	%Recovery
Freon 12	117
Freon 114	116
Vinyl Chloride	119
Bromomethane	107
Chloroethane	89
Freon 11	107
1,1-Dichloroethene	102
Freon 113	102
Methylene Chloride	95
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	94
Chloroform	103
1,1,1-Trichloroethane	107
Carbon Tetrachloride	115
Benzene	98
1,2-Dichloroethane	108
Trichloroethene	102
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	103
Toluene	100
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	101
Tetrachloroethene	102
1,2-Dibromoethane (EDB)	103
Chlorobenzene	100
Ethyl Benzene	104
m,p-Xylene	103
o-Xylene	106
Styrene	106
1,1,2,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	99
1,3-Butadiene	111
Hexane	96
Cyclohexane	103
Heptane	105
Bromodichloromethane	107



Client Sample ID: LCSD

Lab ID#: 1112286AR1-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121708	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/11 08:26 AM

Compound	%Recovery
Dibromochloromethane	109
Cumene	112
Propylbenzene	108
Chloromethane	101
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	100
Acetone	99
Carbon Disulfide	118
2-Propanol	96
trans-1,2-Dichloroethene	113
2-Butanone (Methyl Ethyl Ketone)	94
Tetrahydrofuran	88
1,4-Dioxane	98
4-Methyl-2-pentanone	98
2-Hexanone	100
Bromoform	106
4-Ethyltoluene	101
Ethanol	84
Methyl tert-butyl ether	105
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	109
2,2,4-Trimethylpentane	95
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked
Naphthalene	78

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	101	70-130



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Scott Bittinger
 Collected by: (Print and Sign) Allen Dudding
 Company Stratus Environmental, Inc. Email s.bittinger@stratusinc.com
 Address 3330 Cameron Park Dr. #550 City Cameron, Park State CA Zip 95682
 Phone 530-676-2062 Fax 530-676-6005

Project Info: P.O. # _____ Project # <u>2090-1970-01</u> Project Name <u>Grm it Auto Repair</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N ₂ He
	<small>specify</small>	

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	SU-1A	34634	12/13/11	1054	TO-15: GRO, BTEX	-29	-7		
02A	SU-1B	14523		1123	MTBE, ETBE, TAME, DZPE,	-28.5	-7		
03A	SU-2A	34622		1228	TBA, RDB, 1,2-DCA,	28.5	-7		
04A	SU-3A	34097		1311	Naphthalene,	-17*	-7		
05A	SU-3B	35676		1349	Standard List VOCs, 1,1-DFA, D-1946: O ₂ , CO ₂ , CH ₄	-29	-7		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>12/14/11 0900</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>12/14/11 0900</u>	Notes: Mani Cold #100479 has a malfunctioning pressure gauge.
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>EVAD</u>		<u>N/A</u>	<u>OK</u>	Yes No <u>None</u>	<u>1112236</u>

APPENDIX F

**GEOTRACKER DATA UPLOAD CONFIRMATION
SHEETS**

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	CPT-1
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516360.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:42:30 PM
<u>Confirmation Number:</u>	4909275114

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GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	CPT-2
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516361.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:43:12 PM
<u>Confirmation Number:</u>	1028884172

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GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	CPT-3
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516362.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:43:52 PM
<u>Confirmation Number:</u>	2819630444

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GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	CPT-3A
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516363.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:44:32 PM
<u>Confirmation Number:</u>	6244672417

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UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	SV-1B
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516364.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:45:07 PM
<u>Confirmation Number:</u>	4741468071

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UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	SV-2B
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516365.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:45:38 PM
<u>Confirmation Number:</u>	1501874566

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UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100667
<u>Field Point:</u>	SV-3B
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	SKMBT_C35311121516370.pdf
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 3:46:18 PM
<u>Confirmation Number:</u>	6220448315

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GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF - Site Investigation
<u>Submittal Title:</u>	CPT-1 lab results
<u>Facility Global ID:</u>	T0600100667
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	11120611_EDF.zip
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/15/2011 4:08:14 PM
<u>Confirmation Number:</u>	6550077319

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UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF - Site Investigation
<u>Submittal Title:</u>	December 2011 Soil Vapor Results
<u>Facility Global ID:</u>	T0600100667
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	1112286AR1.zip
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/29/2011 2:41:19 PM
<u>Confirmation Number:</u>	6835158586

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GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF - Site Investigation
<u>Submittal Title:</u>	December 2011 Soil Gas Results (part 2)
<u>Facility Global ID:</u>	T0600100667
<u>Facility Name:</u>	GRIMIT AUTO REPAIR & SERVICE
<u>File Name:</u>	1112286B.zip
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	12.186.106.98
<u>Submittal Date/Time:</u>	12/29/2011 2:42:02 PM
<u>Confirmation Number:</u>	3849244117

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APPENDIX G
FIELD DATA SHEET

(35) 12-28-11 Gormit Auto Catalase

CHLL

DTP

DYU

ORIGINAL

1800 onsite check MW-1 - 20.12

Remove sock ~~from~~ ~~at~~ Product To Drum
Replace Back To well

New sock in well

7900 offsite

Need To Have Drum with Product

Removal getting Rusty About 20 GALS MIX
And 1 sock