



**Ami Adini
& Associates, Inc.**

PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT

**Autumnwood Development
Amaryllis Court, Wildomar, California 92595**

Prepared for
**Swanson Law Firm
499 North Canon Drive , Beverly Hills, California 90210**

September 27, 2012



Project No. Swanson.p01

**Submitted to
Ms. Julia Swanson
Swanson Law Firm
499 North Canon Drive, Beverly Hills, California 90210**

**4130 Cahuenga Blvd., Ste. 113, Los Angeles, California 91602
818.824.8102 • 818.824.8112 fax
www.amiadini.com • mail@amiadini.com**



September 27, 2012
Project No. Swanson.p01
Via PDF and Hardcopy

Ms. Julia Swanson
Swanson Law Firm
499 North Canon Drive
Beverly Hills, California 90210

**Re: Preliminary Environmental Assessment Report, Autumnwood Development, Amaryllis Court,
Wildomar, California 92595**

Dear Ms. Swanson:

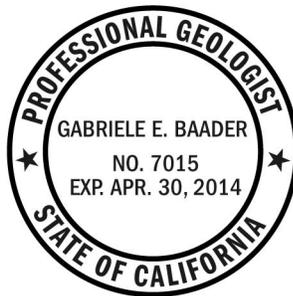
Ami Adini & Associates, Inc. (AA&A), has prepared this *Preliminary Environmental Assessment Report* to present the work performed and findings of an investigation to evaluate the presence of contaminants in the subsurface at various residential properties at the Autumnwood Development in Wildomar, California. Indoor air sampling has indicated the presence of volatile organic compounds in the residences, which appear to have permeated into the residences from beneath. Field activities associated with this phase of investigation included the installation of soil-gas probes and the collection and analysis of soil and soil-gas samples to evaluate subsurface conditions. This investigation was performed in accordance with the AA&A *Proposal for Phase II Assessment*, dated August 16, 2012.

It has been a pleasure providing you with our services. We look forward to assisting you with future needs. If you have any questions regarding this report, or if we can be of further assistance, please do not hesitate to contact me at (818) 824-8102.

Respectfully submitted,
AMI ADINI & ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read 'G Baader', is written over a light blue horizontal line.

Gabriele Baader, PG
Director of Environmental Engineering
Professional Geologist No. 7015, Expiration April 30, 2014



GB:mrd

cc: Addressee (PDF and Hardcopy)

TABLE OF CONTENTS

	Page
Common Abbreviations.....	i
Professional Certification	iv
Statement of Limitations	v
Third-Party Liability Disclaimer.....	vi
Executive Summary	vii
1. INTRODUCTION	1
1.1 Objective	1
1.2 Scope of Work.....	1
2. SITE DESCRIPTION.....	1
3. SITE HISTORY AND BACKGROUND	2
3.1 Property Ownership and Business Type.....	2
3.2 Prior Assessments.....	2
4. GEOLOGY AND HYDROGEOLOGY	3
4.1 Regional and Local Geology.....	3
4.2 Regional and Local Hydrogeology	3
5. SOIL AND SOIL-GAS SURVEY	4
5.1 Summary of Activities	4
5.2 Fieldwork Preparation.....	4
5.2.1 Health and Safety Plan	4
5.2.2 Underground Utility Survey	4
5.2.3 Permitting and Agency Notification.....	4
5.3 Soil and Soil-Gas Sampling and Analysis	4
5.3.1 Sampling Rationale	4
5.3.2 Soil-Gas Sampling	5
5.3.2.1 Soil-Gas Probe Construction	5
5.3.2.2 Purge Testing.....	5
5.3.2.3 Leak Testing	6
5.3.2.4 Soil-Gas Sample Handling Procedures	6
5.3.2.5 Soil-Gas Analytical Procedures	6
5.3.2.6 Soil-Gas Analytical Results	6
5.3.3 Soil Sampling	7
5.3.3.1 Direct-Push Drilling and Sampling Method	7
5.3.3.2 Soil Description	7
5.3.3.3 Equipment Decontamination	8
5.3.3.4 Soil Sample Handling Procedure.....	8
5.3.3.5 Soil Sample Analysis.....	8
5.3.3.6 Soil Analytical Results.....	8
5.3.4 Soil-Gas Survey Borehole Abandonment	9

5.3.5	Soil-Gas Survey Investigation-derived Waste.....	9
5.3.6	Deviation from Proposed Work Scope	9
6.	FINDINGS AND CONCLUSIONS	9
7.	RECOMMENDATIONS.....	10
8.	REFERENCES	10

Figures

Figure 1 – Site Location Map

Figure 2 – Site Map

Figure 3 – Site Vicinity Map

Figure 4 – Soil-Gas Probe Construction Detail (B1 through B7)

Figure 5 – Soil-Gas Probe Construction Detail (B1b)

Tables

Table 1 – Soil-Gas Sampling Analytical Results

Table 2 – Soil Sampling Analytical Results

Table 3 – Soil Sampling Analytical Results - PCBs

Table 4 – Sub-Slab Soil-Gas Sampling Analytical Results

Appendices

Appendix A – Laboratory Reports and Chain-of-Custody Documents

Appendix B – Boring Logs

COMMON ABBREVIATIONS

°C	Degrees Celsius	DO	Dissolved oxygen
°F	Degrees Fahrenheit	DPE	Dual-phase extraction
95UCL	95 percent upper confidence limit	DQO	Data quality objective
AA&A	Ami Adini & Associates, Inc.	DTSC	Department of Toxic Substances Control
AOC	Area of concern	DWR	California Department of Water Resources
AOPC	Area of potential concern	EB	Equipment blank
AQMD	Air Quality Management District (South Coast)	EIR	Environmental impact report
ARAR	Applicable, relevant or appropriate requirement	EQL	Estimated quantification limit (also LDL & PQL)
AST	Aboveground storage tank	EPA	U.S. Environmental Protection Agency
ASTM	American Society for Testing and Materials	ESA	Environmental site assessment
BAT	Best available technology	ESL	Environmental screening level
BACT	Best available control technology	ETBE	Ethyl tertiary butyl ether
bgs	Below ground surface	FID	Flame-ionization detector
BMP	Best management practice	FSP	Field sampling plan
BOD	Biochemical oxygen demand	ft	Foot or feet
BTEX	Benzene, toluene, ethylbenzene, and xylenes	GC/MS	Gas chromatography/mass spectrometry
Cal/EPA	California Environmental Protection Agency	GW	Groundwater well
CAP	Corrective action plan	GWM	Groundwater monitoring well
CCR	California Code of Regulations	H ₂ S	Hydrogen sulfide
CCRWQCB	Central Coast Regional Water Quality Control Board	HDPE	High-density polyethylene
CEQA	California Environmental Quality Act	HAZWOPER	Hazardous waste and operation
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act	HHRA	Human health risk assessment
cfm	Cubic feet per minute	HHSE	Human health screening evaluation
CFR	Code of Federal Regulations	HI	Hazard index
CH ₄	Methane	HQ	Hazard quotient
CHHSLs	California Human Health Screening Levels	HRC	Hydrogen-releasing compound
COC	Chain of custody	HSA	Hollow-stem auger
COC	Chemical of concern	HSC	Health and Safety Code
COPC	Chemical of potential concern	HSP	Health and safety plan
CRRWQCB	Colorado River Regional Water Quality Control Board	HVDPE	High-vacuum dual-phase extraction
CSF	Cancer slope factor	HVOC	Halogenated volatile organic compound
CSM	Conceptual site model	IDW	Investigation-derived waste
CUPA	Certified Unified Program Agency	IRIS	Integrated Risk Information System
CWA	Clean Water Act	J “flag”	Chemical detected below LDL, EQL or PQL
DAF	Dilution-attenuation factor	kg	Kilogram
DCA	Dichloroethane	K _{oc}	Organic carbon partition coefficient
DCE	Dichloroethene or dichloroethylene	LACDHS	Los Angeles County Department of Health Services
DDD	Dichloro-diphenyl-dichloroethane	LACDPW	Los Angeles County Department of Public Works
DDE	Dichloro-diphenyl-dichloroethene	LACFD	Los Angeles County Fire Department
DDT	Dichloro-diphenyl-trichloroethane	LADD	Lifetime average daily dose
DHS	Department of Health Services	LADPW	Los Angeles Department of Public Works
DIPE	Di-isopropyl ether	LAFD	Los Angeles City Fire Department
DNAPL	Dense non-aqueous-phase liquid		

LARWQCB	Los Angeles Regional Water Quality Control Board	PPE	Personal protective equipment
LDL	Laboratory detection limit (also EQL and PQL)	ppm	Parts per million
LNAPL	Light non-aqueous-phase liquid	ppmv	Parts per million by volume
LRWQCB	Lahontan Regional Water Quality Control Board	PQL	Practical quantification limit (also EQL and LDL)
LUST	Leaking underground storage tank	PRG	Preliminary remediation goal (EPA)
MDL	Method detection limit	PRGi	Industrial preliminary remediation goal (EPA)
MEK	Methyl ethyl ketone (or 2-butanone)	PRGr	Residual preliminary remediation goal (EPA)
mg/kg	Milligrams per kilogram	PRP	Potentially responsible party
mg/L	Milligrams per liter	QAPP	Quality assurance project plan
MNA	Monitoring and natural attenuation	QA/QC	Quality assurance/quality control
M,p-xylene	Meta, para-xylene	QC	Quality control
mph	Miles per hour	RAP	Remedial action plan
MSL	Mean sea level	RCRA	Resource Conservation and Recovery Act
MTBE	Methyl tertiary butyl ether	REC	Recognized environmental condition
mV	Millivolt	REL	Reference exposure level
MW	Monitoring well	RfD	Reference dose
MWD	Metropolitan Water District	RI/FS	Remedial investigation/feasibility study
NA	Not applicable	RL	Reporting limit
ND	Not detected at or above method quantification limit	RME	Reasonable maximum exposure
NEPA	National Environmental Policy Act	RP	Responsible party
NE	Not established	RSL	Regional soil screening level (EPA)
NFA	No further action	RWQCB	Regional Water Quality Control Board
NPDES	National Pollution Discharge Elimination System	SAP	Sampling and analysis plan
NPL	National Priority List	SARA	Superfund Amendments & Reauthorization Act
NS	Not sampled	SARWQCB	Santa Ana Regional Water Quality Control Board
NTU	Nephelometric turbidity unit	scfm	Standard cubic feet per minute
OCHCA	Orange County Health Care Agency	SDRWQCB	San Diego Regional Water Quality Control Board
OCWD	Orange County Water District	SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
OEHHA	Office of Health Hazard Assessment	SGS	Soil-gas survey
ORP	Oxidation reduction potential	SHSP	Site-specific health and safety plan
OSHA	Occupational Safety and Health Administration	SIC	Standard Industrial Classification
OVA	Organic vapor analyzer	SLIC	Spills, Leaks, Investigation and Cleanup
O&G	Oil and grease	SLOCEHD	San Luis Obispo County Environmental Health Department
o-xylene	Ortho-xylene	SMCHS	San Mateo County Health System
PAHs	Poly-aromatic hydrocarbons	SPCC	Spill prevention control and countermeasure
PCBs	Polychlorinated biphenyls	SSL	Soil screening level
PCE	Perchloroethene, perchloroethylene, tetrachloroethene, tetrachloroethylene or "perc"	STLC	Soluble threshold limit concentration
PDF	Portable document format	SVE	Soil vapor extraction
PE	Professional Engineer	SVOC	Semi-volatile organic compound
PEA	Preliminary endangerment assessment or preliminary environmental assessment	SWPPP	Storm water pollution prevention plan
PEF	Potency equivalent factor	SWRCB	State Water Resources Control Board
PG	Professional Geologist	TAME	Tertiary amyl methyl ether
PID	Photo-ionization detector	TB	Trip blank
ppb	Parts per billion	TBA	Tertiary butyl alcohol (tert-butanol)
ppbv	Parts per billion by volume	TCA	Trichloroethane

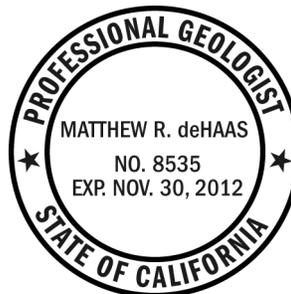
TCE	Trichloroethene or trichloroethylene
TCLP	Toxic characteristic leaching procedure
TDS	Total dissolved solids
TMB	Trimethylbenzene
TOC	Total organic carbon
TPCA	Toxic Pit Cleanup Act
TPH	Total petroleum hydrocarbons
TPHcc	Total petroleum hydrocarbons carbon chain
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TPHo	Total petroleum hydrocarbons as oil
TRPH	Total recoverable petroleum hydrocarbons
TSCA	Toxic Substances Control Act
TSS	Total suspended solids
TTLC	Total threshold limit concentration
USA	Underground Service Alert
USCS	Unified Soils Classification System
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geologic Survey
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
$\mu\text{g}/\text{kg}$	Micrograms per kilogram
$\mu\text{g}/\text{L}$	Micrograms per liter
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VES	Vapor extraction system
VET	Vapor extraction test
VOC	Volatile organic compound
WDR	Waste discharge requirement
WET	Waste extraction test
WIP	Well Investigation Program

PROFESSIONAL CERTIFICATION

This *Preliminary Environmental Assessment Report* has been prepared by



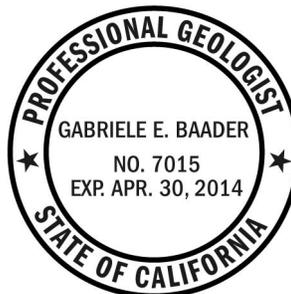
Matthew R. deHaas, PG
Senior Geologist



under the professional review and quality control of



Gabriele Baader, PG
Director of Environmental Engineering
Professional Geologist



and approved by



Ami Adini
President, Principal Environmental Consultant
NREP Registered Environmental Professional No. 2614
General Engineering/Hazardous Waste Contractor No. 587540
B. Sc. Mech. Eng.

STATEMENT OF LIMITATIONS

The scope of this investigation was intended to provide selected environmental information in accordance with a scope of work contracted for by the client/owner. The scope of work was not intended to be comprehensive, identify all potential concerns, or eliminate the possibility of the site having some degree of environmental problem. No degree of assessment can ascertain that a site is completely free of hazardous substances: some regulatory and other pertinent data may be lacking that is critical in completing a full environmental profile of the subject property.

The document was compiled based partially on information supplied from outside sources and other information, that is in the public domain. Ami Adini & Associates, Inc. (AA&A), provides no warranty as to the accuracy of statements made by others, which are contained in this document, nor are any other warranties or guarantees, expressed or implied, included or intended in the document with respect to information supplied by outside sources or conclusions or recommendations substantially based on information supplied by outside sources.

AA&A's investigation, within the framework of the contractual scope of work, was performed using the degree of care and skill ordinarily exercised, under similar circumstances; by reputable environmental specialists practicing in this or similar localities at the time our services were rendered. The document represents our best professional judgment. Since the facts forming the basis for the document are subject to professional interpretation, differing conclusions could be reached. None of the work performed herein shall constitute or be represented as a legal opinion of any kind or nature.

Samples collected and used for testing and observations made are believed representative of the entire project; however, soil and geologic conditions as well as groundwater conditions can vary between borings, test pits, and surface outcrops.

This document is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure proper/legal disclosures to public, private, and regulatory entities.

The interpretations and recommendations of this document are based on the data collected and AA&A's present working knowledge of environmental site assessments. As such, this document is valid as of the date shown, and AA&A cannot be responsible for subsequent changes in physical/chemical/environmental conditions and/or legislation over which AA&A has no control.

THIRD-PARTY LIABILITY DISCLAIMER

This document, which is the work product of AA&A, has been produced in accordance with a specific contract between AA&A and its client, who is represented by the party to whom this document is addressed. The services described in this document were performed in a manner consistent with AA&A's agreement with the client and in accordance with generally accepted professional consulting principles and practices. This document is the product for the sole use and benefit of the contracting client. It creates no rights or benefits to parties other than the client and AA&A, except such other rights as are specifically called for herein.

AA&A consents to the release of this document to third parties at the discretion of the client. However, any use of or reliance upon this information by a party other than the client shall be solely at the risk of such third party and without legal recourse against AA&A, its affiliates, associates, employees, officers, or directors, regardless of whether the action in which recovery of the damage is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of AA&A), statute or otherwise. This document shall not be used or relied upon by a party that does not agree to be bound by the above statement. This document is valid as of the date shown, and AA&A shall not be held responsible for subsequent changes in physical/chemical/environmental conditions and/or legislation over which AA&A has no control.

EXECUTIVE SUMMARY

Ami Adini & Associates, Inc. (AA&A), has prepared this *Preliminary Environmental Assessment Report* for the Autumnwood Development located at Amaryllis Court in Wildomar, California 92595, hereinafter referred to as *the site*.

The objective of conducting this environmental assessment was to evaluate the presence of contaminants in the subsurface at various residential properties. Indoor air sampling has indicated the presence of volatile organic compounds (VOCs) in the residences, which appear to have permeated into the residences from beneath. Field activities associated with this phase of investigation included the installation of soil-gas probes and the collection and analysis of soil and soil-gas samples to evaluate subsurface conditions. This investigation was performed in accordance with the AA&A *Proposal for Phase II Assessment*, dated August 16, 2012.

On September 12, 2012, AA&A advanced seven soil borings (B1 through B7) and installed two soil-gas probes in each boring at depths of 5 and 10 feet bgs. A second boring was installed in the vicinity of boring B1 so that a soil-gas probe could be installed to 15 feet bgs. The locations of the soil-gas probes were selected in the field and were located primarily in the areas where previous assessment activities warranted additional investigation. AA&A selected these locations to evaluate subsurface conditions in areas where elevated concentrations of contaminants had been reported in sub-slab soil-gas and/or indoor air samples.

Soil-gas samples were analyzed for VOCs. Laboratory analysis of soil-gas samples indicated the presence of chlorobenzene, chloroform, chloromethane, toluene, trichloroethene, and/or trichlorofluoromethane. The California Office of Environmental Health Hazard Assessment established California Human Health Screening Levels (CHHSLs) for contaminants in soil and soil-gas. None of the reported contaminants exceeded their respective CHHSLs.

Soil samples were also collected from the borings for lithologic description and laboratory analysis for VOCs, semi-VOCs, total petroleum hydrocarbon characterization, organochlorine pesticides, and polychlorinated biphenyls. Laboratory analytical results for the soil samples indicated that none of the analytes were present in any of the soil samples submitted for analysis.

Based on the findings of this assessment, AA&A recommends additional testing to further evaluate the source of VOCs identified in sub-slab soil-gas and indoor and outdoor air samples previously collected at the site. AA&A recommends the following:

- Collection and analysis of additional sub-slab soil-gas samples in accordance with the methods presented in the Cal EPA Advisory – Active Soil Gas Investigations, dated April 2012, to further evaluate current conditions and the potential need for mitigation measures to prevent vapor intrusion of contaminants from subsurface soil to indoor air.
- Due to the use of recycled water for non-potable purposes at the Autumnwood development, AA&A recommends that samples of tap water in the homes, water used for irrigation purposes, and groundwater at multiple locations at the site be sampled and analyzed.
- Collection and analysis of material samples inside houses to evaluate their potential to contribute affecting indoor air quality. Materials in the houses to be sampled may include drywall, carpet, paint, and other materials with the potential to emit VOCs to the indoor air.

1. INTRODUCTION

Ami Adini & Associates, Inc. (AA&A) has prepared this *Preliminary Environmental Assessment Report* for the Autumnwood Development located at Amaryllis Court in Wildomar, California 92595, hereinafter referred to as *the site* (Figure 1).

This report describes the objectives, methodologies, and activities that were performed to conduct the preliminary environmental assessment at the site.

1.1 Objective

The objective of conducting this environmental assessment was to evaluate the presence of contaminants in the subsurface at various residential properties. Indoor air sampling has indicated the presence of volatile organic compounds (VOCs) in the residences, which appear to have permeated into the residences from beneath. Field activities associated with this phase of investigation included the installation of soil-gas probes and the collection and analysis of soil and soil-gas samples to evaluate subsurface conditions. This investigation was performed in accordance with the AA&A *Proposal for Phase II Assessment*, dated August 16, 2012.

1.2 Scope of Work

The scope of work for this preliminary environmental assessment included:

- Preparing a site-specific health and safety plan (SHSP);
- Conducting pre-fieldwork preparation, including obtaining permits, marking of boring locations, and Underground Service Alert (USA) notification.
- Installing eight soil-gas probes to 5 feet below ground surface (bgs);
- Installing seven soil-gas probes to 10 feet bgs;
- Installing one soil-gas probe to 15 feet bgs;
- Collecting soil and soil-gas samples and analyzing for chemical constituents;
- Evaluating site data and development of recommendations for future site activities; and
- Preparing this report.

2. SITE DESCRIPTION

The site is a residential housing tract identified as the Autumnwood development in Wildomar, California. The Autumnwood development is bound by South Pasadena Street on the southeast, Penrose Street on the northwest, Palomar Street on the northeast and a drainage canal south of Front Street on the southwest. The houses in the development were constructed between 2004 and 2006 and built slab on grade. Previous environmental assessments indicate the presence of VOCs in indoor air samples and sub-slab soil-gas samples collected from several of the houses as well as outdoor ambient air samples (Figure 2).

3. SITE HISTORY AND BACKGROUND

3.1 Property Ownership and Business Type

The site comprises several residential properties located within the Autumnwood development residential housing tract located west of the intersection of Palomar Street and South Pasadena Street in Wildomar, California (Figure 1). Prior to construction of the houses, the area was vacant, undeveloped land.

3.2 Prior Assessments

Historical site documents were provided by Swanson Law Firm and reviewed to evaluate the prior assessments and site history. The documents reviewed were used to prepare the following discussion of the site history and prior assessments.

Prior to the construction of the Autumnwood residential development, C.H.J., Incorporated (CHJ), of Colton, California, prepared the *Preliminary Environmental Site Assessment (Phase I)*, dated June 13, 2003. Based upon a review of aerial photographs dating back to 1949, CHJ indicated that the site was primarily vacant and undeveloped between 1949 and 2001. A small structure appeared to be present near the eastern corner of the property in an aerial photo from 1949; the structure was not present in the subsequent aerial photo reviewed, taken in 1964. Minor miscellaneous storage was noted near the eastern corner of the site in the 1964 photo that was not observed in the next photo taken in 1974. Aerial photos from 1983, 1995, and 2001 did not indicate significant changes to the property. Based on the findings of the work performed to complete the Phase I, CHJ indicated that no evidence was found to indicate that the site currently has, or has in the past had, significant problems with hazardous waste or materials.

During site grading for the residential development a field memo prepared by the grading observation and testing technician dated December 1, 2004, indicated that grading contractor was spreading “good soil” with stockpiled soil filled with organic wood and trash. The technician informed the contractor that all trash, organics, and unsuitable material is required to be hauled off site, but the grading contractor continued to use the organic contaminated soil in fill. A field memo dated December 2, 2004, indicated that mixing of the organics in fill had stopped.

A field memo dated February 5, 2005, indicated that the grading observation technician observed a street sweeper dumping trash into the fill and the non-response of the grading contractor to stop the action as it was occurring. A skip loader was later used to remove the contaminated fill from the fill area.

A field memo dated March 7, 2005, indicated that grading operations were stopped due to high moisture content of the import fill material from the Lake Elsinore wash out area and the material being contaminated with tires, plywood, organics, and miscellaneous debris. The trucking contractor was removing the debris before use. Field memos dated March 9 and 10, 2005, also indicated that the saturation level of the import material was beyond satisfactory standards. Grading operations were stopped until satisfactory moisture contents could be obtained.

In May and July 2012, an indoor air quality investigation was conducted by Nancy Carraway. The results of the investigation were presented in the *Indoor Air Quality Investigation* report, dated August 23, 2012. The indoor air quality investigation was conducted to evaluate indoor and ambient air conditions and three residences as well as sub-slab soil-gas conditions at two residences. Indoor air samples were collected using Summa canisters equipped with flow regulators to allow for the collection of composite samples over a 24-hour period. Outdoor air samples were also collected at the three residences using similar equipment for comparative purposes. Laboratory analysis of the samples indicated the presence of chloromethane, chloroethane, methylene chloride,

bromodichloromethane, benzene, 1,2 dichloroethane, toluene, ethylbenzene, p,m-xylene, o-xylene, and/or styrene in the samples.

4. GEOLOGY AND HYDROGEOLOGY

4.1 Regional and Local Geology

The site is located in the geomorphic feature known as the Perris Block between San Jacinto and Santa Ana Blocks in the Peninsular Ranges geomorphic province of California. The Perris Block is bound by the San Jacinto Fault to the north and Elsinore and Chino, Willard, and Wildomar Faults to the south. The Peninsular Ranges province is characterized by northwest-trending mountain ranges and valleys and extends from the San Gabriel and San Bernardino Mountains in the north to California's southern border and beyond, forming Baja California.

According to the Geologic Map of California, Santa Ana Sheet, the site is located above Quaternary Age alluvium in the Elsinore Fault Zone between the Wildomar Fault, adjacently north, and the Willard Fault approximately 0.5-miles to the southwest. Quaternary alluvium within the Elsinore Fault Zone and Temecula Valley Groundwater Basin is estimated to exceed 2,500 feet in thickness (DWR, 2004). Mesozoic age granitic rock form the Elsinore Mountains to the south of the site. Mesozoic age granitic rock and basic intrusive rock form the hills to the north.

Based on the findings of this assessment, soil lithology at the site generally consists of moist, brown, well graded, fine to coarse grained sand from the ground surface to 10 feet bgs, the maximum depth explored.

4.2 Regional and Local Hydrogeology

The site is located within the boundaries of the Temecula Valley Groundwater Basin, California Department of Water Resources (DWR) basin number 9-05, which encompasses a surface area of approximately 137 square miles (DWR, 2004). The basin is bound by the granitic rocks of the Penninsular Ranges, which isolate the basin with the exception of the northwest boundary where it adjoins the Elsinore Groundwater Basin.

Groundwater is generally unconfined and is contained in Quarternary alluvial deposits that are estimated to be over 2,500 feet thick (DWR, 2004). The Wildomar and Willard Faults of the Elsinore Fault Zone pass through the western portion of the groundwater basin where they affect groundwater elevations and pressures. The Murrieta Hot Springs Fault also affects groundwater flow along the eastern portion of the basin. Groundwater flow is generally to the south. Beneficial uses for groundwater throughout the basin include municipal, agricultural and industrial uses.

A review of documents available on the State Water Resources GeoTracker database indicates shallow groundwater at other sites in the vicinity ranges from approximately 12 to 28 feet bgs and generally flows to the south-southeast. Groundwater was not encountered in any of the borings completed at the site to a maximum depth of 15 feet bgs.

Large surface water impoundments located within the Temecula Groundwater Basin include Skinner Reservoir and Vail Lake. Potable water is provided to the development by the Elsinore Valley Municipal Water District (EVMWD). Recycled water is also supplied to the development by the Wildomar Recycled Water Project operated by the EVMWD.

5. SOIL AND SOIL-GAS SURVEY

5.1 Summary of Activities

The scope of work for sampling activities included the following elements:

- Installation of soil-gas probes using methods established by the California Environmental Protection Agency (Cal/EPA);
- Collection of soil samples for lithologic evaluation and chemical analysis;
- Soil and soil-gas sample collection, handling, and documentation using protocols established by Cal/EPA; and
- Evaluation of chemical data to identify chemical of concerns, and provide conclusions and recommendations.

The work was performed under the supervision of a Professional Geologist (PG) licensed in California in compliance with the requirements of the Geologist and Geophysicists Act, Business and Professions Code sections 7800–7887. The following sections describe the activities in detail.

5.2 Fieldwork Preparation

5.2.1 Health and Safety Plan

AA&A prepared a SHSP, which was implemented according to Occupational Safety and Health Administration requirements (29 Code of Federal Regulations 1910.120) to address the proposed scope of work. Requirements and guidelines for worker safety and hazard identification during all phases of the soil-gas assessment were included in the SHSP. The on-site health and safety officer was responsible for implementation of the SHSP. A health and safety meeting was conducted at the beginning of the fieldwork.

5.2.2 Underground Utility Survey

USA was notified at least 48 hours prior to the initiation of intrusive field tasks of the intent to conduct subsurface investigations. All proposed soil boring locations were clearly marked with white paint as required by USA. USA contacted all utility owners of record within the vicinity and notified them of the intention to conduct subsurface investigations in proximity to buried utilities. All utility owners of record, or their designated agents, were expected to clearly mark the position of their utilities on the ground surface throughout the area designated for investigation so that they could be avoided during drilling.

5.2.3 Permitting and Agency Notification

Soil boring permits are not required by the Riverside County Department of Environmental Health for borings that are not intended for groundwater sampling, or borings that inadvertently encounter groundwater as long as they were not intended for groundwater sampling. Agency notification was not required for this investigation.

5.3 Soil and Soil-Gas Sampling and Analysis

5.3.1 Sampling Rationale

The objective of this investigation was to conduct a site assessment to evaluate subsurface soil and soil-gas for the presence of VOCs previously identified at the site during sub-slab soil-gas and indoor and outdoor air sampling.

The boring locations were selected in areas to coincide with areas where VOCs were previously identified as well as areas outside the previously investigated areas to evaluate background soil and soil-gas conditions. The soil boring locations are shown on Figures 2 and 3 and indicate the general areas where the borings were located, based on field conditions and clearance in those areas.

5.3.2 Soil-Gas Sampling

On September 12, 2012, AA&A advanced seven soil borings (B1 through B7) and installed two soil-gas probes in each boring at depths of 5 and 10 feet bgs. A second boring (B1b) was installed in the vicinity of boring B1 so that soil-gas probes could be installed at 5 and 15 feet bgs. The second 5 foot soil-gas probe was installed at the B1b location as the 5 foot probe installed at the B1 location did not produce any volume of soil-gas at the initial time of sampling. The blockage of soil-gas from the soil-gas probe may have been caused by the probe tubing collapsing during construction of the probe or the probe tip being overly saturated by soil moisture. The locations of the borings are shown on Figure 2. The locations of the soil-gas probes were selected in the field and were located primarily in the areas where previous assessment activities warranted additional investigation. AA&A selected these locations to evaluate subsurface conditions in areas where elevated concentrations of contaminants had been reported in sub-slab soil-gas and/or indoor air samples.

The soil-gas probe installation, leak testing procedures, determination of purge time/volumes, purge rates, and sample collection methodologies were conducted in general accordance with Cal/EPA's *Advisory – Active Soil Gas Investigation* (Cal/EPA, 2012). The soil-gas sampling and analysis was completed by Jones Environmental, Inc., of Fullerton, California. The soil-gas probe locations coincided with the soil boring locations and are shown on Figure 2.

5.3.2.1 Soil-Gas Probe Construction

Installation of the soil-gas probes was performed in accordance with the semi-permanent soil-gas probe construction guidelines described in the Cal/EPA advisory (*Advisory – Active Soil Gas Investigations*, April 2012). A soil-gas probe construction diagram is provided on Figure 4. Soil-gas probes were installed using hydraulic direct-push equipment and 1.5-inch-diameter, direct-push rods, with each boring completed to approximately 10.5 feet bgs and one boring to 15.5 feet bgs. After each boring was advanced to the desired depth, the bottom 6 inches was backfilled with clean, graded (#3), kiln-dried Lone Star sand (up to 10 feet bgs). A 0.5-inch-diameter by 2.5-inch-long stainless steel soil-gas probe implant connected to an appropriate length of 0.25-inch-diameter Nylaflow® sampling tube was lowered to the top of the sand pack at 10 feet bgs. Another soil-gas probe was placed at 5 feet bgs as shown on Figure 4. Dedicated tubing was installed for 5-, 10-, and 15-foot soil-gas probes and each was marked clearly at the surface.

5.3.2.2 Purge Testing

The purpose of purge testing was to ensure that stagnant air was removed from the sampling system and soil-gas samples collected were representative of subsurface conditions. Purge testing of one, three, and ten tubing volumes (1P/3P/10P) was conducted at the beginning of the soil-gas investigation to evaluate the appropriate purge volume to use during this investigation. The purge test was conducted in B1. Purging was accomplished using a vacuum pump, calibrated flow meter, and vacuum gauge. After the initial 1P/3P/10P test, the purge volume selected for the investigation corresponded to the sample result showing the highest concentrations of detected VOCs of interest. Based on this rule, the 1P purge volume was selected.

5.3.2.3 Leak Testing

Leakage during soil-gas sampling may dilute samples with ambient air and produce results that underestimate actual site concentrations or contaminate the sample with external contaminants. A leak test was conducted at every probe location. A mixture of n-propanol and n-pentane was used as the tracer compound to evaluate the presence of surface leaks into the subsurface due to improper installation of the soil-gas probes. Liquid tracer compounds were applied to towels or clean rags and placed near the top of the temporary probe. The leak-check compound was not detected in any of the soil-gas samples.

5.3.2.4 Soil-Gas Sample Handling Procedures

Soil-gas samples collected were analyzed immediately at a mobile laboratory. The glass syringes were kept in a cool, dark place at all times. The samples were wrapped in foil and stored in an insulated container until they were analyzed. The samples were not subjected to extreme hot or cold temperatures.

To identify and manage samples obtained in the field, a sample label was affixed to each sample container. The sample labels included the following information:

- Project number;
- Site name;
- Sample identification (sample location number); and
- Date and time of collection.

5.3.2.5 Soil-Gas Analytical Procedures

Soil-gas samples were collected at 5 feet bgs from B1 through B5, 10 feet from B1 through B7, and 15 feet from B1b, and analyzed for TPHg and VOCs by EPA Method 8260B, using an on-site mobile laboratory in accordance with the Cal/EPA advisory dated April 2012.

Soil-gas samples were collected after a minimum of 2 hours after installation of the probes, using a system constructed of stainless steel, glass, and Teflon® components. Samples were collected by withdrawing a soil-gas sample from the moving sample stream, using a glass syringe fitted with a disposable needle and Mininert® gas-tight valve. The sample withdrawal rate was approximately 200 milliliters per minute. The rest of the sampling train consisted of a vacuum gauge, flow meter, and portable sampling pump. After collection, soil-gas samples were transferred to a mobile laboratory for direct injection into a gas chromatograph for analysis of VOCs. The soil-gas samples were analyzed within 30 minutes of the time of collection.

5.3.2.6 Soil-Gas Analytical Results

Soil-gas analytical results are summarized in Table 1. Concentrations of chlorobenzene, chloroform, chloromethane, toluene, trichloroethene (TCE), and/or trichlorofluoromethane were reported in samples collected from borings B1 through B7. The maximum concentrations detected were:

- Chlorobenzene at 66 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in B1-10;
- Chloroform at 149 $\mu\text{g}/\text{m}^3$ in B1-10;
- Chloromethane at 389 $\mu\text{g}/\text{m}^3$ in B4-5;
- Toluene at 48 $\mu\text{g}/\text{m}^3$ in B3-5;
- TCE at 40 $\mu\text{g}/\text{m}^3$ in B3-5; and

- Trichlorofluoromethane at 69 $\mu\text{g}/\text{m}^3$ in B6-10.

No other VOCs were detected in any of the soil-gas samples. The California Office of Environmental Health Hazard Assessment established California Human Health Screening Levels (CHHSLs) for contaminants in soil and soil-gas. Of the reported contaminants, CHHSLs have only been established for toluene and TCE. The reported concentrations of toluene and TCE were below their respective CHHSLs. CHHSLs have not been established for chlorobenzene, chloroform, chloromethane, and trichlorofluoromethane. Laboratory analytical results and the CHHSLs for the contaminants reported are summarized on Table 1. The complete laboratory report is included in Appendix A.

5.3.3 Soil Sampling

5.3.3.1 Direct-Push Drilling and Sampling Method

Before the borings were drilled, the upper 4 feet of each boring location was hand-augered to clear for subsurface obstructions. Soil borings B1 through B7 were drilled to approximately 10 feet bgs using a direct-push rig, by Millennium Environmental of Anaheim, California. Soil samples were collected at 5-foot intervals from 5 to 10 feet bgs and at any change in lithology or change in observed contamination. Grab samples were also collected from the hand-auger cuttings at approximately 2 and 3 feet bgs.

Soil samples collected during drilling were screened for VOCs by headspace analysis, using a photo-ionization detector (PID) calibrated to 100 ppm isobutylene. For each sampling interval, approximately 200 grams of soil were placed in a plastic bag and sealed to allow organic vapors to volatilize for several minutes prior to each measurement. After the soil and the atmosphere in the sealed plastic bag were allowed to equilibrate, the probe tip of the PID was inserted into the plastic bag, and VOCs (in ppm) were recorded on the boring logs. The boring number, sample depth, lithologic description, discolorations, and PID readings were noted on the boring logs (Appendix B). No soil cuttings were generated during drilling activities using the direct-push rig.

The borings were continuously cored from 4 feet bgs to 10 feet bgs. Soil samples were collected in 1.5-inch-diameter acetate liners protected by an outer steel sampler housing, hydraulically driven into the soil by the direct-push rig. Upon collection, the soil sample collected in the liner was sealed with Teflon® film and plastic caps. The field geologist, under the supervision of a senior PG, recovered the soil samples for lithologic identification and cut portions of recovered samples for headspace analysis. Soil was described in accordance with the Unified Soil Classification System. In addition, the samples were observed for color, texture, moisture content, plasticity, physical evidence of soil contamination (i.e., odor, discoloration), and any other notable characteristics.

A site safety meeting was conducted prior to the commencement of fieldwork, when the site-specific HSP was reviewed and signed by all field personnel involved with the assessment activities. The fieldwork was conducted under the supervision of a California PG.

5.3.3.2 Soil Description

Soil lithology in borings B1 through B7 generally consisted of moist, brown, well graded, fine to coarse grained sand from the ground surface to 10 feet bgs. Although a soil-gas probe was installed to 15 feet bgs in a second boring completed in the vicinity of boring B1 lithology between 10 and 15 feet bgs was not evaluated.

No hydrocarbon odors were observed in any of the samples collected from the borings. PID readings greater than 0.0 were measured in samples collected from borings B3 and B4 and ranged from 0.1 to 0.7 ppm. PID measurements are recorded on the boring logs in Appendix B. Groundwater was not encountered in and of the borings. No organic or artificial debris was encountered in the soil recovered from the borings. Thorough

descriptions of field observations and soil encountered during field activities are presented on the boring logs in Appendix B.

5.3.3.3 Equipment Decontamination

The drilling rods were decontaminated before drilling with a steam-cleaning unit. All reusable sampling equipment was decontaminated before and after each use to assure the quality of samples collected. Decontamination was performed using the following procedure:

- Washing in non-phosphate detergent and tap water wash, using a brush as necessary;
- Rinsing in clean tap water; and
- Final rinsing in deionized or distilled water.

5.3.3.4 Soil Sample Handling Procedure

To identify and manage samples obtained in the field, a sample label was affixed to each sample container. The sample labels included the following information:

- Project number;
- Site name;
- Sample identification (sample location number); and
- Date and time of collection.

Following collection and labeling, samples were delivered to the laboratory for analysis.

5.3.3.5 Soil Sample Analysis

Soil samples were submitted to Alpha Scientific Corporation in Cerritos, California, a state-certified environmental laboratory, to be analyzed for the following parameters:

- TPH-carbon chain characterization by LUFT gas chromatography/mass spectrometry;
- VOCs by EPA Method 8260B;
- Semi-volatile organic compounds by EPA Method 8270V;
- Organochlorine pesticides by EPA Method 8081A; and
- Poly-chlorinated biphenyls (PCBs) by EPA Method 8082.

Select soil samples were analyzed within 72 hours of collection time. Not all soil samples submitted to the analytical laboratory were selected for analysis. Select soil samples were chosen for analysis and the remainder were archived at the laboratory. Soil analytical results are presented in Tables 2 and 3. Laboratory-certified analytical reports for soil samples are provided in Appendix A.

5.3.3.6 Soil Analytical Results

Concentrations of chlorobenzene, chloroform, chloromethane, toluene, TCE, and/or trichlorofluoromethane were reported in soil-gas samples collected from the soil gas probes but were not detected in any of the soil samples submitted for analysis. No TPH, VOCs, semi-VOCs, organochlorine pesticides, or PCBs were reported in any of the soil samples submitted for analysis. Laboratory analytical results for VOCs and PCBs in soil are summarized in Tables 2 and 3, respectively. The complete laboratory report is included in Appendix A.

5.3.4 Soil-Gas Survey Borehole Abandonment

At the conclusion of sampling, all soil-gas probe tubing was removed from the boreholes. All borings were backfilled with hydrated granular bentonite and patched to match the existing ground surface.

5.3.5 Soil-Gas Survey Investigation-derived Waste

During collection of environmental samples in the field sampling program, the only type of potentially contaminated investigation-derived waste generated was disposable sampling equipment. No soil cuttings were generated.

5.3.6 Deviation from Proposed Work Scope

No soil-gas samples were collected from borings B6 and B7 at 5 feet bgs; soil-gas probes were installed at these locations but did not produce any volume of soil-gas at the time of sampling. The blockage of soil-gas from the soil-gas probe may have been caused by the probe tubing collapsing during construction of the probe or the probe tip being overly saturated by soil moisture.

Sub-slab soil-gas samples were collected from locations inside the residences located at 21711 and 21699 Amaryllis Court. The samples were collected to perform a comparative analysis with samples collected during a previous environmental assessment. However, the sampling methods and locations between the two sampling events are not commensurate and the results of the two sampling events should not be compared. The locations of the sub-slab soil-gas samples are shown on Figure 2. Summarized laboratory analytical results for the sub-slab soil-gas samples are provided in Table 4.

6. FINDINGS AND CONCLUSIONS

- On September 12, 2012, AA&A advanced eight soil borings (B1 through B8) and installed fifteen soil-gas probes (B1-5, B1-10, B1-15, B2-5, B2-10, B3-5, B3-10, B4-5, B4-10, B5-5, B5-10, B6-5, B6-10, B7-5, and B7-10). Soil-gas samples were collected from depths of 5 and 10 feet bgs. One soil-gas sample was collected from 15 feet bgs (B1-15). The boring locations were selected in areas to coincide with areas where VOCs were previously identified as well as areas outside the previously investigated areas to evaluate background soil and soil-gas conditions.
- Laboratory analysis of soil-gas samples indicated that concentrations of chlorobenzene, chloroform, chloromethane, toluene, TCE, and/or trichlorofluoromethane were present in samples collected from borings B1 through B7. The reported concentrations did not exceed their respective residential CHHSLs for soil-gas below buildings constructed on engineered fill. No other VOCs were reported in the soil-gas samples.
- Laboratory analysis of soil samples collected from the borings indicated that no contaminants were present in the soil at concentrations exceeding the method detection limits used by the analytical laboratories.
- A review of potable water suppliers in the area indicated that potable water is supplied by the EVMWD and that the EVMWD supplies recycled water to several areas within the districts service area for non-potable purposes. The Autumnwood development receives recycled water for non-potable purposes.

7. RECOMMENDATIONS

Based on the findings of this assessment, AA&A recommends additional testing to further evaluate the source of VOCs identified in sub-slab soil-gas and indoor and outdoor air samples previously collected at the site. AA&A recommends the following:

- Collection and analysis of additional sub-slab soil-gas samples in accordance with the methods presented in the Cal EPA *Advisory – Active Soil Gas Investigations*, dated April 2012, to further evaluate current conditions and the potential need for mitigation measures to prevent vapor intrusion of contaminants from subsurface soil to indoor air.
- Due to the use of recycled water for non-potable purposes at the Autumnwood development, AA&A recommends that samples of tap water in the homes, water used for irrigation purposes, and groundwater at multiple locations at the site be sampled and analyzed.
- Collection and analysis of material samples inside houses to evaluate their potential to contribute affecting indoor air quality. Materials in the houses to be sampled may include drywall, carpet, paint, and other materials with the potential to emit VOCs to the indoor air.

8. REFERENCES

1. California Department of Conservation, *Geologic Map of California, Santa Ana Sheet*, 1:250,000 scale, 1965.
2. California Department of Water Resources (DWR), *California's Groundwater Bulletin 118, Temecula Valley Groundwater Basin*, February 27, 2004.
3. California Department of Water Resources (DWR), *California's Groundwater Bulletin 118, Elsinore Groundwater Basin*, January 20, 2006.
4. California Environmental Protection Agency (Cal/EPA), *Advisory – Active Soil Gas Investigations*, April 2012.
5. C.H.J., Incorporated, *Preliminary Environmental Site Assessment (Phase I)*, June 13, 2003.
6. Department of Toxic Substances Control (DTSC), *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011.
7. Office of Environmental Health Hazard Assessment (OEHHA), *Human Exposure Based Screening Numbers*, 2010. <http://www.oehha.ca.gov/risk/chhsltable.html>
8. Office of Environmental Health Hazard Assessment (OEHHA), *Toxicity Criteria Database*, Office of Environmental Health Hazard Assessment, March 2005.
9. Nancy Carraway, *Indoor Air Quality Investigation* report, August 23, 2012.

FIGURES

Figures 1 through 5



© 2012 Google

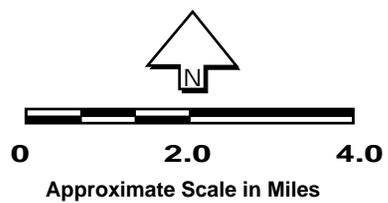
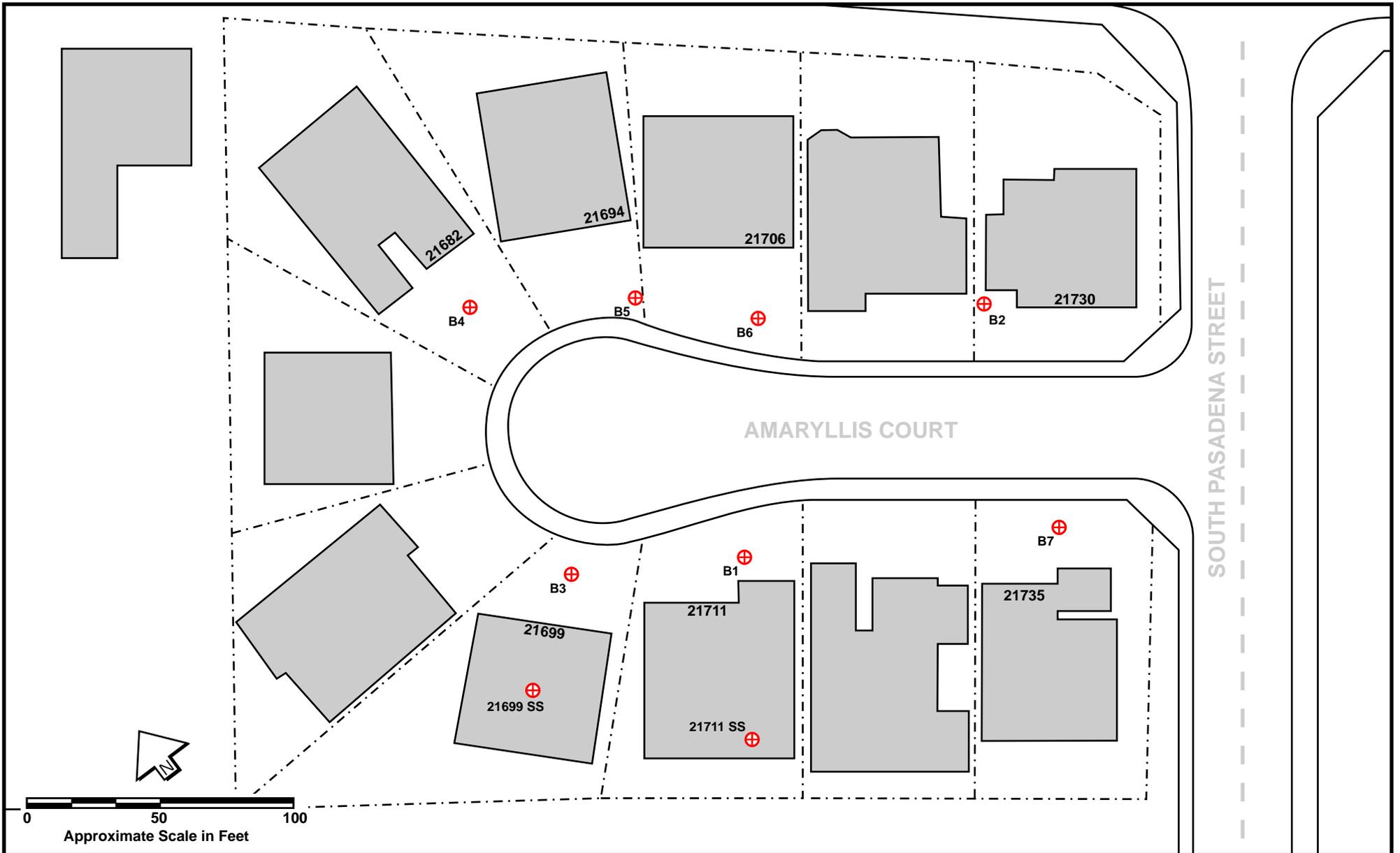


Figure 1: Site Location Map
Autumnwood Development
Amaryllis Court
Wildomar, California 92595

DRAWN BY: MRd	DATE: September 2012	PROJECT: Swanson.p01
------------------	-------------------------	-------------------------

 **Ami Adini
& Associates, Inc.**



LEGEND

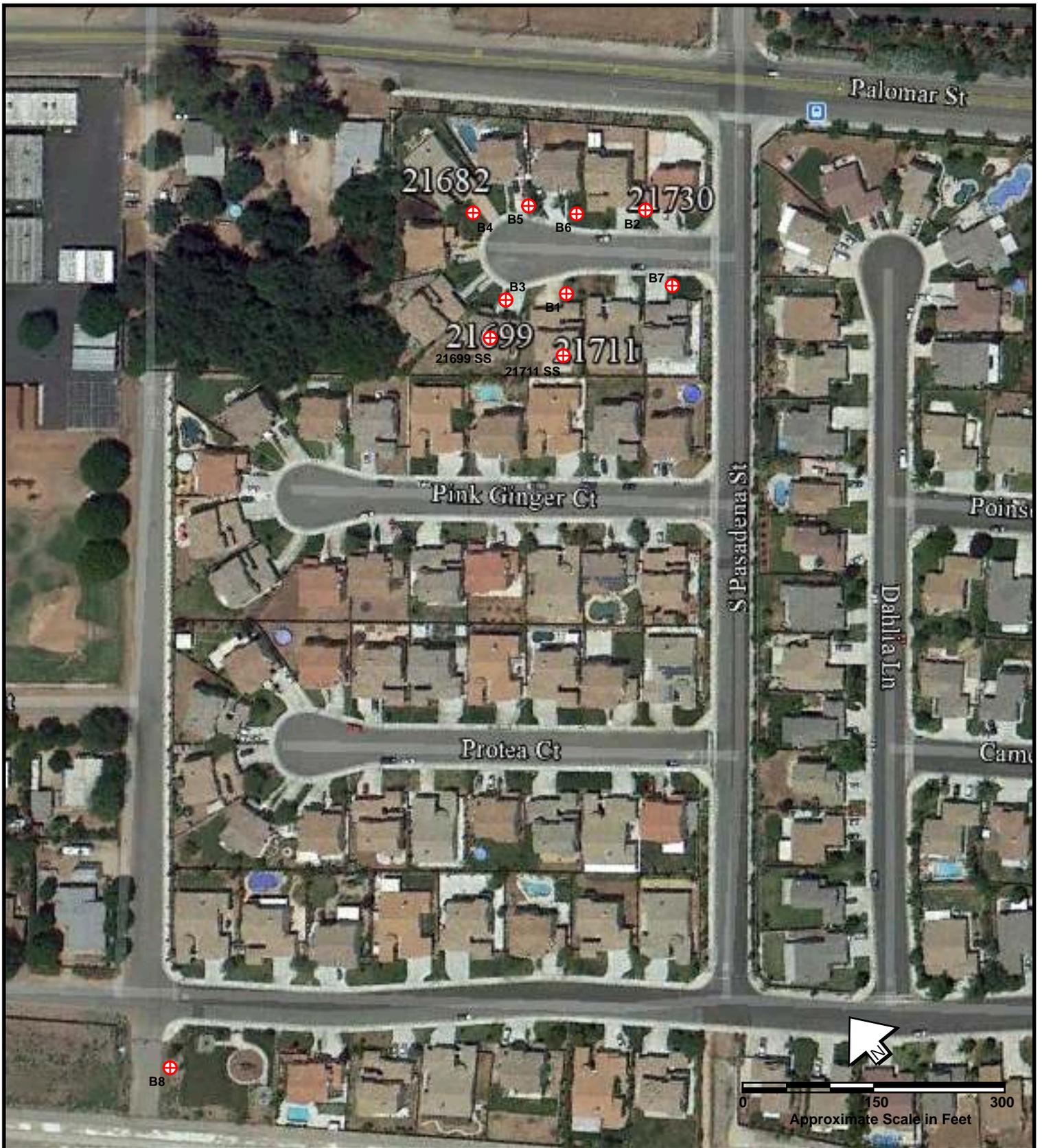
- B1 - B7 ⊕ Soil boring/soil-gas probe
- 21711 SS ⊕ Sub-slab soil-gas sample

----- Property line

Figure 2: Site Map
Autumnwood Development
Amaryllis Court
Wildomar, California 92595

DRAWN BY: GI	DATE: September 2012	PROJECT: Swanson.p01
------------------------	--------------------------------	--------------------------------

 **Ami Adini**
 & Associates, Inc.



LEGEND

- B8  Soil-gas probe/soil boring
- 21711 SS  Sub-slab soil-gas sample

Figure 3: Site Vicinity Map
Autumnwood Development
Amaryllis Court
Wildomar, California 92595

DRAWN BY: MRd	DATE: September 2012	PROJECT: Swanson.p01
-------------------------	--------------------------------	--------------------------------

 **Ami Adini**
 & Associates, Inc.

Soil-Gas Probe Construction Diagram B1 to B7

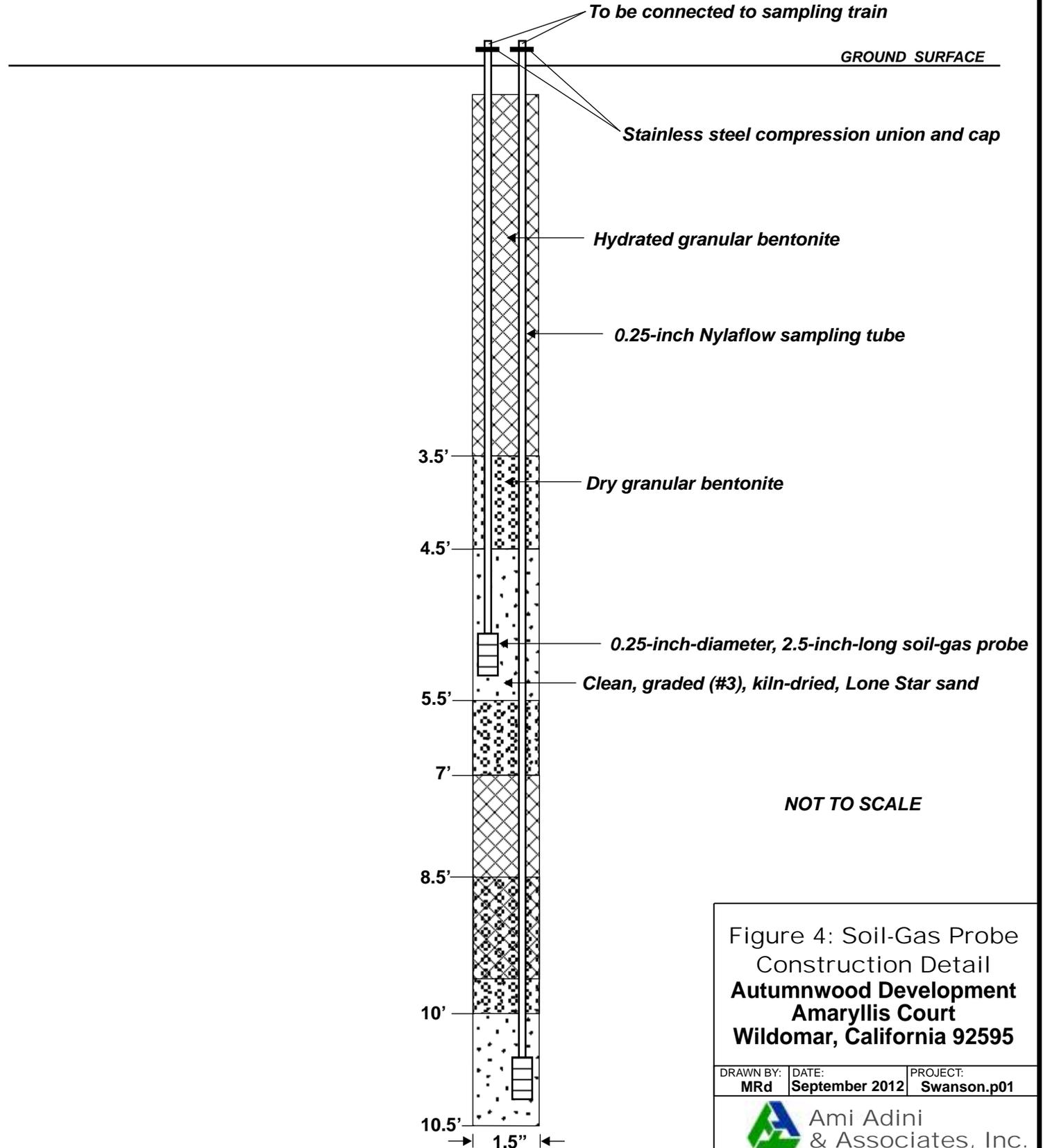


Figure 4: Soil-Gas Probe Construction Detail
Autumnwood Development
Amaryllis Court
Wildomar, California 92595

DRAWN BY: MRd	DATE: September 2012	PROJECT: Swanson.p01
-------------------------	--------------------------------	--------------------------------

Soil-Gas Probe Construction Diagram B1b

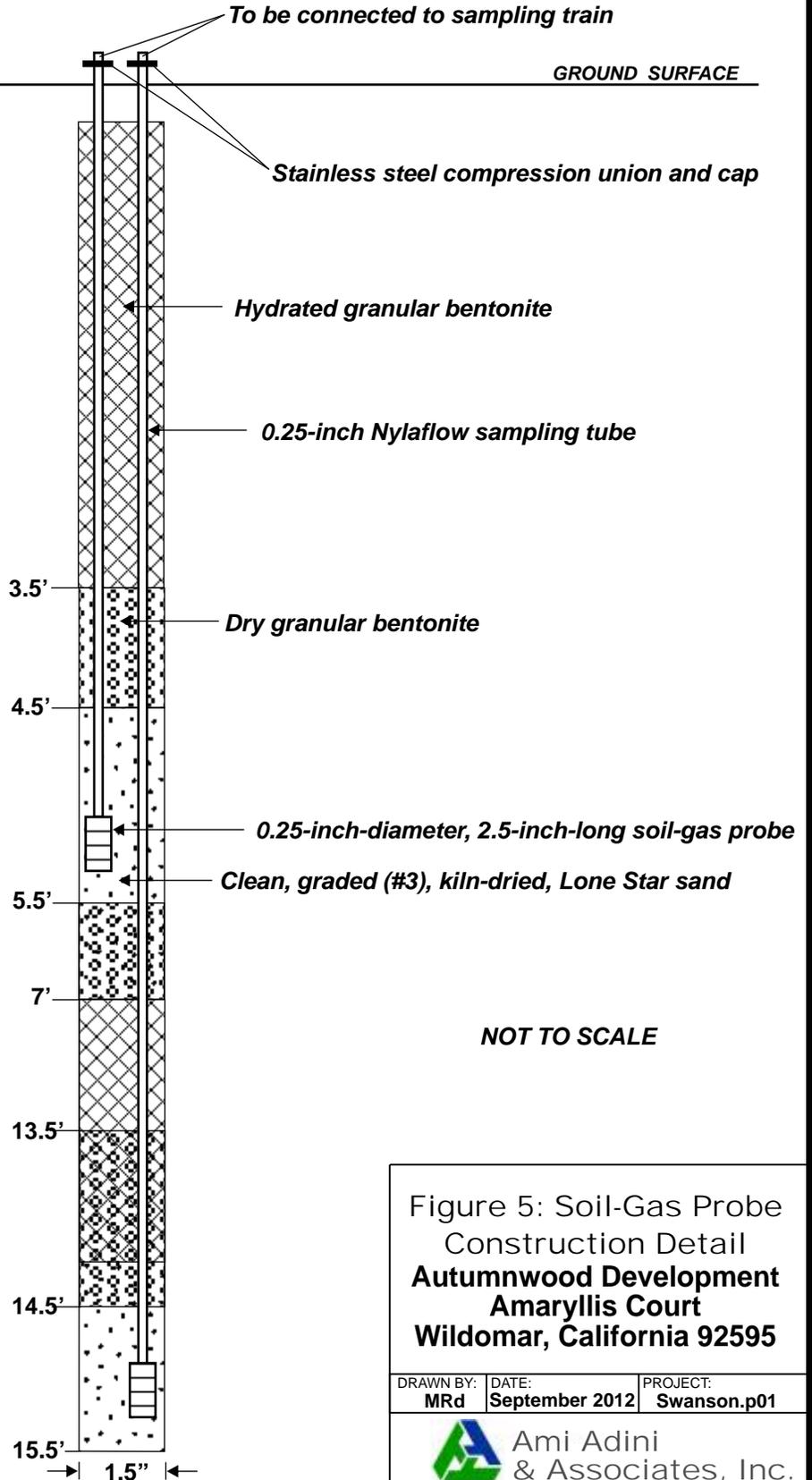


Figure 5: Soil-Gas Probe Construction Detail
Autumnwood Development
Amaryllis Court
Wildomar, California 92595

DRAWN BY: MRd	DATE: September 2012	PROJECT: Swanson.p01
-------------------------	--------------------------------	--------------------------------

TABLES

Table 1 through 4

Table 1
Soil-Gas Sampling Analytical Results
Autumnwood Development
Amaryllis Court, Wildomar, California

Sample ID	Date	Depth (feet bgs)	Dilution Factor	Chlorobenzene ($\mu\text{g}/\text{m}^3$)	Chloroform ($\mu\text{g}/\text{m}^3$)	Chloromethane ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Trichloroethene ($\mu\text{g}/\text{m}^3$)	Trichlorofluoromethane ($\mu\text{g}/\text{m}^3$)
B1-5	9/12/2012	5	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
B1-5 REP	9/12/2012	5	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
B1-10 (1P)	9/12/2012	10	1	66	149	<8.0	22	31	<8.0
B1-10 (3P)	9/12/2012	10	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
B1-10 (10P)	9/12/2012	10	1	<8.0	<8.0	<8.0	28	<8.0	<8.0
B1-15	9/12/2012	15	1	<8.0	<8.0	<8.0	27	<8.0	11
B2-5	9/12/2012	5	1	<8.0	<8.0	<8.0	42	38	<8.0
B2-10	9/12/2012	10	1	<8.0	<8.0	<8.0	29	<8.0	<8.0
B3-5	9/12/2012	5	1	<8.0	<8.0	<8.0	48	40	<8.0
B3-10	9/12/2012	10	1	<8.0	<8.0	<8.0	18	<8.0	<8.0
B4-5	9/12/2012	5	1	<8.0	<8.0	389	20	<8.0	<8.0
B4-10	9/12/2012	10	1	<8.0	<8.0	<8.0	29	33	<8.0
B5-5	9/12/2012	5	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
B5-10	9/12/2012	10	1	<8.0	<8.0	<8.0	19	<8.0	16
B6-10	9/12/2012	5	1	<8.0	<8.0	<8.0	<8.0	<8.0	69
B7-10	9/12/2012	10	1	<8.0	<8.0	<8.0	<8.0	<8.0	37
Equip Blank B-5373-17	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Equip Blank B-5373-18	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Method Blank B-5373-19	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Sample Blank B-5373-20	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Method Blank B-5373-21	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Sample Blank B-5373-22	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Residential Soil-Gas Screening Level		NA	NA	NE	NE	NE	320,000	1,300	NE

Notes:

bgs = Below ground surface $\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter
NA = Not applicable NE = Not established

Screening levels based on California Office of Environmental Health Hazard Assessment for buildings constructed with engineered fill below sub-slab (Updated 09/23/2010; <http://oehha.ca.gov/risk/chhsitable.html>).

Values presented in **BOLD** exceed practical quantitation level used by analytical laboratory.

No other volatile organic compounds reported in soil-gas samples submitted for analysis.

Table 2
Soil Sampling Analytical Results
Autumnwood Development
Amaryllis Court, Wildomar, California

Sample ID	Date	Depth (feet bgs)	Dilution Factor	Chlorobenzene (µg/kg)	Chloroform (µg/kg)	Chloromethane (µg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Trichloroethene (µg/kg)	Trichlorofluoromethane (µg/kg)	Naphthalene (µg/kg)	Styrene (µg/kg)
B1-10	9/12/2012	10	1	<2	<2	<2	<1	<1	<2	<2	<2	<2
B2-3	9/12/2012	3	1	<2	<2	<2	<1	<1	<2	<2	<2	<2
B3-5	9/12/2012	5	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B4-10	9/12/2012	10	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B7-10	9/12/2012	10	1	<2	<2	<2	<1	<1	<2	<2	<2	<2
B8-3	9/12/2012	3	1	<2	<2	<2	<1	<1	<2	<2	<2	<2
Method Blank (Alpha)	9/12/2012	NA	1	<2	<2	<2	<1	<1	<2	<2	<2	<2
Method Blank (Jones)	9/12/2012	NA	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MDL (Alpha)		NA	NA	2	2	2	1	1	2	2	2	2
PQL (Alpha/Jones)		NA	NA	5/1.0	5/1.0	5/1.0	2/1.0	2/1.0	4/1.0	5/1.0	5/1.0	5/1.0
State Residential Soil Screening Levels		NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE
Federal Residential Soil Screening Levels		NA	NA	290,000	290	120,000	1100	5,000,000	910	790,000	3,600	6,300,000

Notes:

bgs = Below ground surface
µg/kg = Micrograms per kilogram

NA = Not applicable
NE = Not established

State screening levels based on California Office of Environmental Health Hazard Assessment for buildings constructed with engineered fill below sub-slab (Updated 09/23/2010; <http://oehha.ca.gov/risk/chhsstable.html>).

Federal screening levels based on US EPA, Region 9, Regional Screening Levels (updated May 2012; <http://www.epa.gov/region9/superfund/prg/>).

Samples B3-5 and B4-10 analyzed by Jones Environmental, Inc. Samples B1-10, B2-3, B7-10 and B8-3 analyzed by Alpha Scientific Corp.

Values presented in **BOLD** exceed practical quantitation level used by analytical laboratory.

No other volatile organic compounds reported in soil-gas samples submitted for analysis.

Table 3
Soil Sampling Analytical Results - PCBs
 Autumnwood Development
 Amaryllis Court, Wildomar, California

Sample ID	Date	Depth (feet bgs)	Dilution Factor	PCB-1016 (mg/kg)	PCB-1221 (mg/kg)	PCB-1232 (mg/kg)	PCB-1242 (mg/kg)	PCB-1248 (mg/kg)	PCB-1254 (mg/kg)	PCB-1260 (mg/kg)
B1-10	9/12/2012	10	1	<50	<100	<50	<50	<50	<50	<50
B2-3	9/12/2012	3	1	<50	<100	<50	<50	<50	<50	<50
B7-10	9/12/2012	10	1	<50	<100	<50	<50	<50	<50	<50
B8-3	9/12/2012	3	1	<50	<100	<50	<50	<50	<50	<50
Method Blank	9/12/2012	NA	1	<50	<100	<50	<50	<50	<50	<50
MDL		NA	NA	50	100	50	50	50	50	50

Notes:

PCB = Polychlorinated biphenyls
 bgs = Below ground surface

mg/kg = Milligrams per kilogram
 NA = Not applicable

Values presented in **BOLD** exceed practical quantitation level used by analytical laboratory.

Table 4
Sub-Slab Soil Gas Sampling Analytical Results
 Autumnwood Development
 Amaryllis Court, Wildomar, California

Sample ID	Date	Depth (feet bgs)	Dilution Factor	Benzene (µg/m3)	Chloroform (µg/m3)	Naphthalene (µg/m3)	Styrene (µg/m3)	Toluene (µg/m3)
21711-SS	9/12/2012	NA	1	40	63	62	119	22
21699-SS	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	15
Method Blank	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0
Sample Blank	9/12/2012	NA	1	<8.0	<8.0	<8.0	<8.0	<8.0
Residential Soil-Gas Screening Level		NA	NA	85	NE	NE	NE	320,000

Notes:

bgs = Below ground surface
 NA = Not applicable

µg/m3 = Micrograms per cubic meter
 NE = Not established

Screening levels based on California Office of Environmental Health Hazard Assessment for buildings constructed with engineered fill below sub-slab (Updated 09/23/2010).
 (<http://oehha.ca.gov/risk/chhsltable.html>)

Values presented in **BOLD** exceed practical quantitation level used by analytical laboratory.

No other volatile organic compounds reported in sub-slab soil-gas samples submitted for analysis.

APPENDIX A

Laboratory Reports and Chain-of-Custody Documents



P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
Los Angeles, CA 91602

Report date: 9/13/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer
Swanson.p01
Project Address: 21682 Amaryllis Court
Wildomar, CA 92595

Date Sampled: 9/12/2012
Date Received: 9/12/2012
Date Analyzed: 9/12/2012
Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and seven purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane were found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Ambient Air Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval:

Steve Jones, Ph.D.
Laboratory Manager



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B1-10 1P	B1-10 3P	B1-10 10P	B2-5	B2-10	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>JEL ID:</u>	B-5373-01	B-5373-02	B-5373-03	B-5373-04	B-5373-05	<u>Limit</u>	
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	0.066(66)	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	0.149(149)	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B1-10 1P	B1-10 3P	B1-10 10P	B2-5	B2-10		
<u>JEL ID:</u>	B-5373-01	B-5373-02	B-5373-03	B-5373-04	B-5373-05	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	0.022(22)	ND	0.028(28)	0.042(42)	0.029(29)	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	0.031(31)	ND	ND	0.038(38)	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040(40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	ND	ND	ND	0.080(80)	µg/L(µg/m3)
TIC:							
n-propanol/n-pentane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	96%	99%	102%	101%	97%	75 - 125	
Toluene-d ₈	84%	83%	85%	85%	90%	75 - 125	
4-Bromofluorobenzene	88%	96%	99%	106%	95%	75 - 125	
B1-091212-CHECKS_1	B1-091212-CHECKS_1	B1-091212-CHECKS_1	B1-091212-CHECKS_1	B1-091212-CHECKS_1	B1-091212-CHECKS_1		

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B3-5	B3-10	B4-5	B4-10	B5-5	<u>Practical</u>	<u>Units</u>
<u>JEL ID:</u>	B-5373-06	B-5373-07	B-5373-08	B-5373-09	B-5373-10	<u>Quantitation</u>	
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	0.389(389)	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B3-5	B3-10	B4-5	B4-10	B5-5		
<u>JEL ID:</u>	B-5373-06	B-5373-07	B-5373-08	B-5373-09	B-5373-10	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	0.048(48)	0.018(18)	0.020(20)	0.029(29)	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	0.040(40)	ND	ND	0.033(33)	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040(40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	ND	ND	ND	0.080(80)	µg/L(µg/m3)
<u>TIC:</u>							
n-propanol/n-pentane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	95%	95%	100%	96%	103%	75 - 125	
Toluene-d ₈	89%	88%	96%	93%	93%	75 - 125	
4-Bromofluorobenzene	97%	110%	94%	109%	91%	75 - 125	
B1-091212-CHECKS_1	B1-091212-CHECKS_1	B2-091212-CHECKS_1	B1-091212-CHECKS_1	B2-091212-CHECKS_1			

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B5-10	B6-10	B7-10	B1-15	B1-5	<u>Practical</u>	<u>Units</u>
<u>JEL ID:</u>	B-5373-11	B-5373-12	B-5373-13	B-5373-14	B-5373-15	<u>Quantitation</u>	
Analytes:						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B5-10	B6-10	B7-10	B1-15	B1-5		
<u>JEL ID:</u>	B-5373-11	B-5373-12	B-5373-13	B-5373-14	B-5373-15	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	0.019(19)	ND	ND	0.027(27)	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	0.016(16)	0.069(69)	0.037(37)	0.011(11)	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040(40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	ND	ND	ND	0.080(80)	µg/L(µg/m3)
<u>TIC:</u>							
n-propanol/n-pentane	ND	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	93%	102%	94%	101%	99%	75 - 125	
Toluene-d ₈	90%	94%	96%	101%	96%	75 - 125	
4-Bromofluorobenzene	109%	90%	96%	115%	98%	75 - 125	
	B1-091212- CHECKS_1	B2-091212- CHECKS_1	B2-091212- CHECKS_1	B1-091212- CHECKS_1	B2-091212- CHECKS_1		

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID: B1-5 REP

JEL ID: B-5373-16

Analytes:		Practical	
		Quantitation	Units
		Limit	
Benzene	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID: B1-5 REP

JEL ID: B-5373-16

Analytes:		Practical Quantitation Limit	Units
cis-1,3-Dichloropropene	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	0.040(40)	µg/L(µg/m3)
TPH Gasoline Range	ND	0.080(80)	µg/L(µg/m3)

TIC:
n-propanol/n-pentane ND 0.008(8.0) µg/L(µg/m3)

Dilution Factor 1

Surrogate Recoveries:		QC Limits
Dibromofluoromethane	98%	75 - 125
Toluene-d ₈	97%	75 - 125
4-Bromofluorobenzene	99%	75 - 125

B2-091212-
CHECKS_1

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK	<u>Practical Quantitation Limit</u>	<u>Units</u>
<u>JEL ID:</u>	B-5373-17	B-5373-18	B-5373-22	B-5373-23		
Analytes:						
Benzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	<u>METHOD</u> <u>BLANK</u>	<u>SAMPLING</u> <u>BLANK</u>	<u>METHOD</u> <u>BLANK</u>	<u>SAMPLING</u> <u>BLANK</u>		
<u>JEL ID:</u>	<u>B-5373-17</u>	<u>B-5373-18</u>	<u>B-5373-22</u>	<u>B-5373-23</u>	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>					<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	ND	ND	0.040(40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	ND	ND	0.080(80)	µg/L(µg/m3)
TIC:						
n-propanol/n-pentane	ND	ND	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					QC Limits	
Dibromofluoromethane	97%	104%	115%	112%	75 - 125	
Toluene-d ₈	93%	94%	89%	92%	75 - 125	
4-Bromofluorobenzene	101%	98%	100%	116%	75 - 125	
	B2-091212- CHECKS_1	B2-091212- CHECKS_1	B1-091212- CHECKS_1	B1-091212- CHECKS_1		

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample Spiked: JEL ID:	Ambient Air		GC#: B2-091212-CHECKS_1			
	B-5373-20	B-5373-21	B-5373-19			
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	125%	116%	7.8%	70-130	108%	70-130
Benzene	123%	122%	1.1%	70-130	122%	70-130
Trichloroethylene	104%	98%	5.4%	70-130	100%	70-130
Toluene	99%	96%	3.2%	70-130	101%	70-130
Chlorobenzene	107%	107%	0.1%	70-130	112%	70-130
TPH Gasoline Range	112%	108%	3.5%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	110%	106%		75-125	93%	75-125
Toluene-d ₈	95%	92%		75-125	94%	75-125
4-Bromofluorobenzene	101%	98%		75-125	106%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/12/2012
JEL Ref. No.: B-5373

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample Spiked: JEL ID:	Ambient Air		GC#: B1-091212-CHECKS_1			
	B-5373-25	B-5373-26	B-5373-24			
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	82%	87%	5.7%	70-130	99%	70-130
Benzene	111%	111%	0.1%	70-130	104%	70-130
Trichloroethylene	99%	98%	0.8%	70-130	93%	70-130
Toluene	104%	102%	2.0%	70-130	103%	70-130
Chlorobenzene	98%	103%	4.7%	70-130	96%	70-130
TPH Gasoline Range	99%	100%	1.4%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	125%	120%		75-125	115%	75-125
Toluene-d ₈	90%	88%		75-125	90%	75-125
4-Bromofluorobenzene	108%	106%		75-125	90%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

Chain-of-Custody Record

Client
Ami Adini + Associates

Project Name
Swanson

Project Address
21632 Amarillis Court
Wildomar, CA 92595

Project Contact
Larry Wittner

Date
9/12/2012

Client Project #

Turn Around Requested:

Immediate Attention
 Rush 24-48 Hours
 Rush 72-96 Hours
 Normal
 Mobile Lab

SOIL GAS

Purge Number: 1P 3P 7P 10P

Purge Rate: 200 cc/min

Shut in Test Y N

Tracer:

n-propanol
 n-pentane
 1,1-DFA
 Helium

Analysis Requested

Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)

Magnehelic Vacuum (InH₂O)

Number of Containers

JEL Project #
B-5373

Page
1 of 2

Lab Use Only

Sample Condition as Received:
Chilled yes no
Sealed yes no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Magnehelic Vacuum (InH ₂ O)	Number of Containers	Remarks/Special Instructions
B1-10 1P	548	1P	9/12	11:33		B-5373-01	SL	30	2	
B1 10 3P	1644	3P	9/12	11:59		B-5373-02	SL	30	2	
B1-10 10P	548	10P	9/12	12:30		B-5373-03	SL	30	2	
B2-5	521	1P	9/12	13:11		B-5373-04	SL	90	2	
B2-10	548	1P	9/12	13:55		B-5373-05	SL	30	2	
B3-5	521	1P	9/12	14:15		B-5373-06	SL	90	2	
B3-10	548	1P	9/12	16:04		B-5373-07	SL	5	2	
B4-5	521	1P	9/12	16:13		B-5373-08	SL	5	2	
B4-10	548	1P	9/12	16:39		B-5373-09	SL	5	2	
B5-5	521	1P	9/12	16:40		B-5373-10	SL	5	2	

1 Relinquished by (signature) MA	Date 9/12/12	2 Received by (signature) Kathy de W...	Date 9/12/12	Total Number of Containers 20
Company	Time	Company JONES	Time	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	

Chain-of-Custody Record

Client Am. Adini & Associates	Date 9/12/2012	SOIL GAS Purge Number: <input checked="" type="checkbox"/> 1P <input type="checkbox"/> 3P <input type="checkbox"/> 7P <input type="checkbox"/> 10P Purge Rate: 100 cc/min Shut in Test: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	JEL Project # B5373
Project Name Swinson POI	Client Project #	Analysis Requested Tracer: <input checked="" type="checkbox"/> n-propanol <input type="checkbox"/> n-pentane <input type="checkbox"/> 1,1-DFA <input type="checkbox"/> Helium <input type="checkbox"/> _____	Page 2 of
Project Address 21612 Amaryllis Court	Turn Around Requested: <input type="checkbox"/> Immediate Attention <input type="checkbox"/> Rush 24-48 Hours <input type="checkbox"/> Rush 72-96 Hours <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Mobile Lab		Lab Use Only
Project Contact Lucy Witmer			Sample Condition as Received: Chilled <input type="checkbox"/> yes <input type="checkbox"/> no Sealed <input type="checkbox"/> yes <input type="checkbox"/> no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Remarks/Special Instructions
B5-10	1P	548	9/12	16:56		B-5373-11	SG x	5 2
B6-10	1P	548	9/12	17:07		B-5373-12	SG x	5 2
B7-10	1P	548	9/12	17:40		B-5373-13	SG x	5 2
B1-15	1P	601	9/12	17:54		B-5373-14	SG x	5 2
B1-5	1P	521	9/12	18:10		B-5373-15	SG x	5 2
B1-5 DUP	1P	521	9/12	18:10		B-5373-16	SG x	5 2

1 Relinquished by (signature) <i>ME</i>	Date 9/12/12	2 Received by (signature) <i>Witmer</i>	Date 9/12/12	Total Number of Containers
Company	Time	Company Jones	Time	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	



P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
Los Angeles, CA 91602

Report date: 9/18/2012
JEL Ref. No.: B-5374

Attn: Larry Witwer

Swanson.p01
Project Address: 21682 Amaryllis Court
Wildomar, CA 92595

Date Sampled: 9/12/2012
Date Received: 9/12/2012
Date Analyzed: 9/17/2012
Physical State: Soil

ANALYSES REQUESTED

1. EPA 8260B by 5035 -Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Approval:

Steve Jones, Ph.D.
Laboratory Manager



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/18/2012
JEL Ref. No.: B-5374

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92596

Date Analyzed: 9/17/2012
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	B3-5	B4-10		
<u>JEL ID:</u>	B-5374-02	B-5374-05	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>			<u>Quantitation</u>	
			<u>Limit</u>	
Benzene	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	1.0	µg/kg
Bromoform	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	1.0	µg/kg
Chloroethane	ND	ND	1.0	µg/kg
Chloroform	ND	ND	1.0	µg/kg
Chloromethane	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	B3-5	B4-10		
JEL ID:	B-5374-02	B-5374-05	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	1.0	µg/kg
Freon 113	ND	ND	1.0	µg/kg
Hexachlorobutadiene	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	1.0	µg/kg
Styrene	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	1.0	µg/kg
Toluene	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	1.0	µg/kg
Xylenes	ND	ND	1.0	µg/kg
MTBE	ND	ND	1.0	µg/kg
Ethyl-tert-butylether	ND	ND	1.0	µg/kg
Di-isopropylether	ND	ND	1.0	µg/kg
tert-amylmethylether	ND	ND	1.0	µg/kg
tert-Butylalcohol	ND	ND	5.0	µg/kg
TPH Gasoline Range	ND	ND	0.2	mg/kg
Dilution Factor	1	1		
Surrogate Recoveries:			QC Limits	
Dibromofluoromethane	97%	97%	60 - 140	
Toluene-d ₈	98%	97%	60 - 140	
4-Bromofluorobenzene	101%	102%	60 - 140	

B2-091712- B2-091712-
CHECKS_1 CHECKS_1

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/18/2012
JEL Ref. No.: B-5374

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92596

Date Analyzed: 9/17/2012
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID: **METHOD**
BLANK

JEL ID: **B-5374-12**

Analytes:

		<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
		<u>Limit</u>	
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroethane	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
Chloromethane	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	METHOD BLANK		
<u>JEL ID:</u>	B-5374-12		
Analytes:		<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
		<u>Limit</u>	
cis-1,3-Dichloropropene	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 113	ND	1.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethylene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethylene	ND	1.0	µg/kg
Trichlorofluoromethane	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
Xylenes	ND	1.0	µg/kg
MTBE	ND	1.0	µg/kg
Ethyl-tert-butylether	ND	1.0	µg/kg
Di-isopropylether	ND	1.0	µg/kg
tert-amylmethylether	ND	1.0	µg/kg
tert-Butylalcohol	ND	5.0	µg/kg
TPH Gasoline Range	ND	0.2	mg/kg
<u>Dilution Factor</u>	1		
<u>Surrogate Recoveries:</u>		<u>QC Limits</u>	
Dibromofluoromethane	97%	60 - 140	
Toluene-d ₈	92%	60 - 140	
4-Bromofluorobenzene	103%	60 - 140	

B2-091712-
CHECKS_1

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/18/2012
JEL Ref. No.: B-5374

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92596

Date Analyzed: 9/17/2012
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample Spiked: JEL ID:	CLEAN SOIL		GC#:	B2-091712-CHECKS_2		
	B-5374-14	B-5374-15		B-5374-13		
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	114%	111%	3.2%	70-130	117%	70-130
Benzene	119%	126%	5.6%	70-130	118%	70-130
Trichloroethylene	103%	107%	4.1%	70-130	98%	70-130
Toluene	101%	106%	5.2%	70-130	97%	70-130
Chlorobenzene	109%	115%	5.2%	70-130	105%	70-130
TPH Gasoline Range	109%	113%	3.1%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	101%	100%		75-125	88%	75-125
Toluene-d ₈	96%	95%		75-125	91%	75-125
4-Bromofluorobenzene	104%	105%		75-125	105%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client
Ami Adair & Associates

Project Name
Superfund Poi

Project Address
21692 Amargilloes Court
Wildomar, CA 92595

Project Contact
Lucy Witwer

Date
9/12/2012

Client Project #

Turn Around Requested:

Immediate Attention
 Rush 24-48 Hours
 Rush 72-96 Hours
 Normal
 Mobile Lab

SOIL GAS

Purge Number: 1P 3P 7P 10P
Purge Rate: _____ cc/min
Shut in Test Y / N

Tracer:
 n-propanol
 n-pentane
 1,1-DFA
 Helium

Analysis Requested

Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)
EPA 8260B Hold
EPA 8260
Magnetic Vacuum (In/2O)
Number of Containers

JEL Project #
B-5374

Page
1 of 2

Lab Use Only

Sample Condition as Received:
Chilled yes no
Sealed yes no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	EPA 8260B Hold	EPA 8260	Magnetic Vacuum (In/2O)	Number of Containers	Remarks/Special Instructions
B3-10			9/12	1005		B-5374-01	S	x			1	
B3-5			9/12	1055		B-5374-02	S	x	x		1	
B3-10			9/12	1100		B-5374-03	S	x			1	
B4-5			9/12	11:35		B-5374-04	S	x			1	
B4-10			9/12	1140		B-5374-05	S	x	x		1	
B5-5			9/12	1350		B-5374-06	S	x			1	
B5-10			9/12	1355		B-5374-07	S	x			1	
B6-5			9/12	1430		B-5374-08	S	x			1	
B6-10			9/12	1440		B-5374-09	S	x			1	
B7-5			9/12	13:28		B-5374-10	S	x			1	

1 Relinquished by (signature) MA	Date 9/12/12	2 Received by (signature) [Signature]	Date 9/12/12	Total Number of Containers 10
Company	Time	Company Jones	Time	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	



Alpha Scientific Corporation
Environmental Laboratories

09-19-2012

Ms. Gabriele Baader
Ami Adini & Associates, Inc.
4130 Cahuenga Blvd., Suite 113
Los Angeles, CA 91602

Project: Swanson. P01
Project Site: Amaryllis Court, Wildomar
Sample Date: 09-12-2012
Lab Job No.: S209054

Dear Ms. Baader:

Enclosed please find the analytical report for the samples received by Alpha Scientific Corporation on 09-14-2012 and analyzed by the following EPA methods:

EPA 8015M (Total Petroleum Hydrocarbons)
EPA 8260B (VOCs by GC/MS)
EPA 8270C (SVOCs by GC/MS)
EPA 8081A (Organochlorine Pesticides)
EPA 8082 (PCBs)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation
Environmental Laboratories

09-19-2012

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Project Site: Amaryllis Court, Wildomar
Matrix: Soil
Batch No. for TPH-g: EMI15-GS1
Batch No. for TPH-d&o: BI17-DS1

Lab Job No.: S209054
Date Sampled: 09-12-2012
Date Received: 09-14-2012
Date Analyzed: 09-15-2012
Date Analyzed: 09-17-2012
Date Reported: 09-12-2012

EPA 8015M (Total Petroleum Hydrocarbons)
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Gasoline Range (C4-C12)*	Diesel Range (C13-C23)	Oil Range (C24-C40)
MDL		0.2	1	20
PQL		0.5	5	40
Method Blank		ND	ND	ND
B1-10	S209054-1	ND	ND	ND
B2-3	S209054-2	ND	ND	ND
B7-10	S209054-3	ND	ND	ND
B8-3	S209054-4	ND	ND	ND

* Gasoline Range TPH result is obtained from purge and trap analysis using LUFT GC/MS Method;
MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (below MDL);
J: Trace concentration, result between MDL and PQL.



Alpha Scientific Corporation

Environmental Laboratories

Client: Ami Adini & Associates, Inc
Project: Swanson. P01

Lab Job No.: S209054
Matrix: Soil

Date Reported: 09-19-2012
Date Sampled: 09-12-2012

EPA 8260B (VOCs by GC/MS, Page 1 of 2)

Reporting Unit: µg/kg(ppb)

DATE ANALYZED			09-15	09-15-12	09-15-12	09-15-12	09-15-12	
DILUTION FACTOR (DF)			1	1	1	1	1	
LAB SAMPLE I.D.				S209054-1	S209054-2	S209054-3	S209054-4	
CLIENT SAMPLE I.D.				B1-10	B2-3	B7-10	B8-3	
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	
Chloromethane	2	5	ND	ND	ND	ND	ND	
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	
Bromomethane	2	5	ND	ND	ND	ND	ND	
Chloroethane	2	5	ND	ND	ND	ND	ND	
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	
Iodomethane	2	5	ND	ND	ND	ND	ND	
Methylene Chloride	5	10	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	
Bromochloromethane	2	5	ND	ND	ND	ND	ND	
Chloroform	2	5	ND	ND	ND	ND	ND	
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	
Benzene	1	2	ND	ND	ND	ND	ND	
Trichloroethene	2	4	ND	ND	ND	ND	ND	
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	
Dibromomethane	2	5	ND	ND	ND	ND	ND	
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	
Bromoform	2	5	ND	ND	ND	ND	ND	
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	
Bromobenzene	2	5	ND	ND	ND	ND	ND	



Alpha Scientific Corporation

Environmental Laboratories

Client: Ami Adini & Associates, Inc
Project: Swanson. P01

Lab Job No.: S209054
Matrix: Soil

Date Reported: 09-19-2012
Date Sampled: 09-12-2012

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	B1-10	B2-3	B7-10	B8-3	
Toluene	1	2	ND	ND	ND	ND	ND	
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	
Chlorobenzene	2	5	ND	ND	ND	ND	ND	
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	
Ethylbenzene	1	2	ND	ND	ND	ND	ND	
Total Xylenes	2	4	ND	ND	ND	ND	ND	
Styrene	2	5	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	
Naphthalene	2	5	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	
Acetone	50	100	ND	ND	ND	ND	ND	
2-Butanone (MEK)	35	50	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone(MIBK)	35	50	ND	ND	ND	ND	ND	
2-Hexanone	35	50	ND	ND	ND	ND	ND	
Carbon Disulfide	10	15	ND	ND	ND	ND	ND	
Ethanol	500	1000	ND	ND	ND	ND	ND	
MTBE	2	5	ND	ND	ND	ND	ND	
ETBE	2	5	ND	ND	ND	ND	ND	
DIPE	2	5	ND	ND	ND	ND	ND	
TAME	2	5	ND	ND	ND	ND	ND	
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL); * Obtained from a higher dilution analysis; J=Result is between DF × MDL and DF × PQL.



Alpha Scientific Corporation

Environmental Laboratories

Client: Ami Adini & Associates, Inc
Project: Swanson. P01

Lab Job No.: S209054
Matrix: Soil

Date Reported: 09-19-2012
Date Sampled: 09-12-2012

EPA 8270C (Semi-VOCs by GC/MS, Page 1 of 2)

Reporting Unit: mg/kg (ppm)

DATE EXTRACTED	09-17-12	09-17-12	09-17-12	09-17-12	09-17-12	
DATE ANALYZED	09-17-12	09-17-12	09-17-12	09-17-12	09-17-12	
EXTRACTION METHOD	3550B	3550B	3550B	3550B	3550B	
DILUTION FACTOR (DF)	1	1	1	1	1	
LAB SAMPLE I.D.		S209054-1	S209054-2	S209054-3	S209054-4	
CLIENT SAMPLE I.D.		B1-10	B2-3	B7-10	B8-3	
COMPOUND	MDL	MB				
Phenol	0.33	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	0.33	ND	ND	ND	ND	ND
2-Chlorophenol	0.33	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.33	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.33	ND	ND	ND	ND	ND
Benzyl alcohol	0.66	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.33	ND	ND	ND	ND	ND
2-Methylphenol (o-cresol)	0.33	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	0.33	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	0.33	ND	ND	ND	ND	ND
4-Methylphenol (p-cresol)	0.33	ND	ND	ND	ND	ND
Hexachloroethane	0.33	ND	ND	ND	ND	ND
Nitrobenzene	0.33	ND	ND	ND	ND	ND
Isophorone	0.33	ND	ND	ND	ND	ND
2-Nitrophenol	0.33	ND	ND	ND	ND	ND
2,4-Dimethylphenol	0.33	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	0.33	ND	ND	ND	ND	ND
2,4-Dichlorophenol	0.33	ND	ND	ND	ND	ND
Benzoic acid	1.65	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.33	ND	ND	ND	ND	ND
Naphthalene	0.33	ND	ND	ND	ND	ND
4-Chloroaniline	0.66	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.33	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	0.66	ND	ND	ND	ND	ND
2-Methylnaphthalene	0.33	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	0.66	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	0.33	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	0.5	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.33	ND	ND	ND	ND	ND
2-Nitroaniline	1.65	ND	ND	ND	ND	ND
Dimethylphthalate	0.33	ND	ND	ND	ND	ND
Acenaphthylene	0.33	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.33	ND	ND	ND	ND	ND



Alpha Scientific Corporation
Environmental Laboratories

Client: Ami Adini & Associates, Inc
Project: Swanson. P01

Lab Job No.: S209054
Matrix: Soil

Date Reported: 09-19-2012
Date Sampled: 09-12-2012

EPA 8270C (Semi-VOCs by GC/MS, Page 2 of 2)

Reporting Unit: mg/kg(ppm)

COMPOUND	MDL	MB	B1-10	B2-3	B7-10	B8-3	
3-Nitroaniline	1.65	ND	ND	ND	ND	ND	
Acenaphthene	0.33	ND	ND	ND	ND	ND	
2,4-Dinitrophenol	1.65	ND	ND	ND	ND	ND	
Dibenzofuran	0.33	ND	ND	ND	ND	ND	
4-Nitrophenol	1.65	ND	ND	ND	ND	ND	
2,4-Dinitrotoluene	0.33	ND	ND	ND	ND	ND	
Fluorene	0.33	ND	ND	ND	ND	ND	
Diethylphthalate	0.33	ND	ND	ND	ND	ND	
4-Chlorophenyl phenyl ether	0.33	ND	ND	ND	ND	ND	
4-Nitroaniline	1.65	ND	ND	ND	ND	ND	
1,2-Diphenylhydrazine	0.33	ND	ND	ND	ND	ND	
4,6-Dinitro-2-methylphenol	1.65	ND	ND	ND	ND	ND	
N-Nitrosodiphenylamine	0.33	ND	ND	ND	ND	ND	
4-Bromophenyl- phenyl ether	0.33	ND	ND	ND	ND	ND	
Hexachlorobenzene	0.33	ND	ND	ND	ND	ND	
Pentachlorophenol	1.65	ND	ND	ND	ND	ND	
Phenanthrene	0.33	ND	ND	ND	ND	ND	
Anthracene	0.33	ND	ND	ND	ND	ND	
Di-n-butylphthalate	0.33	ND	ND	ND	ND	ND	
Fluoranthene	0.33	ND	ND	ND	ND	ND	
Pyrene	0.33	ND	ND	ND	ND	ND	
Butyl benzylphthalate	0.33	ND	ND	ND	ND	ND	
Benzo(a)anthracene	0.33	ND	ND	ND	ND	ND	
3,3'-Dichlorobenzidine	0.66	ND	ND	ND	ND	ND	
Chrysene	0.33	ND	ND	ND	ND	ND	
Bis(2-Ethylhexyl)phthalate	0.33	ND	ND	ND	ND	ND	
Di-n-octylphthalate	0.33	ND	ND	ND	ND	ND	
Benzo(b)fluoranthene	0.33	ND	ND	ND	ND	ND	
Benzo(k)fluoranthene	0.33	ND	ND	ND	ND	ND	
Benzo(a)pyrene	0.33	ND	ND	ND	ND	ND	
Indeno(1,2,3-cd)pyrene	0.33	ND	ND	ND	ND	ND	
Dibenz(a,h)anthracene	0.33	ND	ND	ND	ND	ND	
Benzo(g,h,i)perylene	0.33	ND	ND	ND	ND	ND	

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below MDL).



Alpha Scientific Corporation

Environmental Laboratories

Client: Ami Adini & Associates, Inc
 Project: Swanson. P01
 Project Site: Amaryllis Court, Wildomar
 Matrix: Soil
 Extraction Method: EPA 3550B
 Batch No.: AI14-PS1

Lab Job No.: S209054
 Date Sampled: 09-12-2012
 Date Received: 09-14-2012
 Date Extracted: 09-14-2012
 Date Analyzed: 09-14-2012
 Date Reported: 09-19-2012

EPA 8081A (Organochlorine Pesticides)
 Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.	MB	S209054-1	S209054-2	S209054-3	S209054-4
CLIENT SAMPLE I.D.		B1-10	B2-3	B7-10	B8-3
DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	PQL			
Alpha-BHC	3	5	ND	ND	ND
Gamma-BHC (Lindane)	3	5	ND	ND	ND
Heptachlor	3	5	ND	ND	ND
Aldrin	3	5	ND	ND	ND
Betta-BHC	3	5	ND	ND	ND
Delta-BHC	3	5	ND	ND	ND
Heptachlor Epoxide	3	5	ND	ND	ND
Endosulfan I	3	5	ND	ND	ND
4,4'-DDE	3	5	ND	ND	ND
Dieldrin	3	5	ND	ND	ND
Endrin	3	5	ND	ND	ND
4,4'-DDD	3	5	ND	ND	ND
Endosulfan II	3	5	ND	ND	ND
4,4'-DDT	3	5	ND	ND	ND
Endrin Aldehyde	3	5	ND	ND	ND
Endosulfan Sulfate	3	5	ND	ND	ND
Methoxychlor	3	5	ND	ND	ND
Chlordane	15	25	ND	ND	ND
Toxaphene	60	100	ND	ND	ND

MDL=Method Detection Limit;
 PQL=Practical Quantitation Limit;
 MB=Method Blank;
 ND=Not Detected (below DF × MDL);
 * Obtained from a higher dilution analysis.



Alpha Scientific Corporation

Environmental Laboratories

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Project Site: Amaryllis Court, Wildomar
Matrix: Soil
Extraction Method: EPA 3550B
Batch No. AI14-PCBS1

Lab Job No.: S209054
Date Sampled: 09-12-2012
Date Received: 09-14-2012
Date Extracted: 09-14-2012
Date Analyzed: 09-14-2012
Date Reported: 09-19-2012

EPA 8082 (PCB's)
Reporting Unit: µg/kg (ppb)

Sample ID	Lab ID	DF	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Method Detect. Limit (MDL)			50	100	50	50	50	50	50
Method Blank		1	ND						
B1-10	S209054-1	1	ND						
B2-3	S209054-2	1	ND						
B7-10	S209054-3	1	ND						
B8-3	S209054-4	1	ND						

MDL=Method Detection Limit;
MB=Method Blank;
ND=Not Detected (below DF × MDL).



09-19-2012

**TPH-Gasoline
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Matrix: Soil
Batch No.: EMI15-GS1

Lab Job No.: S209054
Lab Sample ID: S209054-1
Date Analyzed: 09-15-2012

**I. MS/MSD Report
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1,000	838	808	83.8	80.8	3.6	30	70-130

**II. LCS Result
Unit: ppb**

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-g	903	1,000	90.3	80-120

ND: Not Detected (at the specified limit).



09-19-2012

**EPA 8015M (TPH)
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc.
Project: Swanson. P01
Matrix: Soil
Batch No: BI17-DS1

Lab Job No.: S209054
Lab Sample ID: S209054-4
Date Analyzed: 09-17-2012

**I. MS/MSD Report
Unit: ppm**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-d	ND	200	200	186	100.0	93.0	7.3	30	70-130

**II. LCS Result
Unit: ppm**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
TPH-d	186	200	93.0	80-120

ND: Not Detected (at the specified limit)



09-19-2012

**EPA 8260B
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc.
Project: Swanson. P01
Matrix: Soil
Batch No: 0915-VOES1

Lab Job No.: S209054
Lab Sample ID: S209054-1
Date Analyzed: 09-15-2012

**I. MS/MSD Report
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	19.2	18.1	96.0	90.5	5.9	30	70-130
Benzene	ND	20	22.0	23.7	110.0	118.5	7.4	30	70-130
Trichloro-ethene	ND	20	20.7	22.4	103.5	112.0	7.9	30	70-130
Toluene	ND	20	21.1	22.5	105.5	112.5	6.4	30	70-130
Chlorobenzene	ND	20	19.6	19.7	98.0	98.5	0.5	30	70-130

**II. LCS Result
Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.0	20.0	80.0	80-120
Benzene	20.7	20.0	103.5	80-120
Trichloro-ethene	18.1	20.0	90.5	80-120
Toluene	22.3	20.0	111.5	80-120
Chlorobenzene	16.9	20.0	84.5	80-120

ND: Not Detected (at the specified limit).



09-19-2012

**EPA 8270C
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Matrix: Soil
Batch No: 0917-BNAS1

Lab Job No.: S209054
Lab Sample ID: S209054-4
Date Analyzed: 09-17-2012

**MS/MSD Report
Unit: ppm**

Compound	MB	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Phenol	ND	10	8.65	8.15	86.5	81.5	6.0	40	12-130
2-Chlorophenol	ND	10	8.10	8.25	81.0	82.5	1.8	40	24-134
1,4-Dichlorobenzene	ND	5.0	4.60	4.53	92.0	90.6	1.5	40	36-124
n-Nitroso-di-n-propylamine	ND	5.0	4.19	4.46	83.8	89.2	6.2	40	41-230
1,2,4-Trichlorobenzene	ND	5.0	4.60	4.86	92.0	97.2	5.5	40	44-142
4-Chloro-3-methylphenol	ND	10	7.48	6.68	74.8	66.8	11.3	40	22-147
Acenaphthene	ND	5.0	4.32	4.20	86.4	84.0	2.8	40	47-145
4-Nitrophenol	ND	10	7.79	5.70	77.9	57.0	31.0	58	12-132
2,4-Dinitrotoluene	ND	5.0	3.88	3.96	77.6	79.2	2.0	40	39-139
Pentachlorophenol	ND	10	11.1	9.11	111.0	91.1	19.7	51	14-176
Pyrene	ND	5.0	2.23	1.75	44.6	35.0	24.1	30	26-130

ND: Not Detected



09-19-2012

**EPA 8081A (Pesticides)
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Matrix: Soil
Batch No. AI14-PS1

Lab Job No.: S209054
Lab Sample ID: UR209049-1
Date Analyzed: 09-14-2012

I. MS/MSD Report
Unit: ppb

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Gamma-BHC	ND	20	22.3	18.8	111.5	94.0	17.0	30	46-127
Heptachlor	ND	20	22.4	21.9	112.0	109.5	2.3	30	31-134
Aldrin	ND	20	19.5	19.8	97.5	99.0	1.5	30	36-132
Dieldrin	ND	20	20.7	21.5	103.5	107.5	3.8	30	21-134
Endrin	ND	20	18.3	17.3	91.5	86.5	5.6	30	42-139
4,4'-DDT	ND	20	22.9	23.2	114.5	116.0	1.3	30	21-134

II. LCS Result
Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
Gamma-BHC	18.6	20	93.0	80-120
Heptachlor	23.3	20	116.5	80-120
Aldrin	19.6	20	98.0	80-120
Dieldrin	21.1	20	105.5	80-120
Endrin	17.3	20	86.5	80-120
4,4'-DDT	20.5	20	102.5	80-120

ND: Not Detected.



09-19-2012

**EPA 8082
Batch QA/QC Report**

Client: Ami Adini & Associates, Inc
Project: Swanson. P01
Matrix: Soil
Batch No. AI14-PCBS1

Lab Job No.: S209054
Lab Sample ID: S209054-1
Date Analyzed: 09-14-2012

I. MS/MSD Report
Unit: ppb

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1016	ND	500	496	446	99.2	89.2	10.6	30	46-127
1260	ND	500	536	494	107.2	98.8	8.2	30	31-134

II. LCS Result

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1016	442	500	88.4	80-120
1260	499	500	99.8	80-120

ND: Not Detected (at the specified limit).



P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client:	Ami Adini Associates, Inc.	Report date:	9/13/2012
Client Address:	4130 Cahuenga Blvd. Suite 113 Los Angeles, CA 91602	JEL Ref. No.:	B-5375
Attn:	Larry Witwer	Date Sampled:	9/12/2012
	Swanson.p01	Date Received:	9/12/2012
Project Address:	21682 Amaryllis Court	Date Analyzed:	9/12/2012
	Wildomar, CA 92595	Physical State:	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and seven purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane were found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Ambient Air Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval:

Steve Jones, Ph.D.
Laboratory Manager



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/13/2012
JEL Ref. No.: B-5375

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID: 21711-SS 21699-SS
JEL ID: B-5375-01 B-5375-02

Analytes:	21711-SS	21699-SS	<u>Practical</u>	<u>Units</u>
			<u>Quantitation</u> <u>Limit</u>	
Benzene	0.040(40)	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	0.063(63)	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	21711-SS	21699-SS		
<u>JEL ID:</u>	B-5375-01	B-5375-02	<u>Practical Quantitation Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	0.062(62)	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	0.119(119)	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	0.022(22)	0.015(15)	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	0.040 (40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	0.080(80)	µg/L(µg/m3)
TIC:				
n-propanol/n-pentane	ND	ND	0.008(8.0)	µg/L(µg/m3)
<u>Dilution Factor</u>				
	1	1		
<u>Surrogate Recoveries:</u>				
Dibromofluoromethane	105%	99%	<u>OC Limits</u>	
Toluene-d ₈	90%	97%	75 - 125	
4-Bromofluorobenzene	99%	118%	75 - 125	
	B1-091212- CHECKS_1	B1-091212- CHECKS_1		

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/13/2012
JEL Ref. No.: B-5375

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK	<u>Practical</u> <u>Quantitation</u> <u>Limit</u>	<u>Units</u>
<u>JEL ID:</u>	B-5375-03	B-5375-04		
Analytes:				
Benzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromodichloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Bromoform	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
sec-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Carbon tetrachloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloroform	ND	ND	0.008(8.0)	µg/L(µg/m3)
Chloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
2-Chlorotoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Chlorotoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromochloromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromo-3-chloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dibromoethane (EDB)	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dibromomethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2- Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,4-Dichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dichlorodifluoromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
cis-1,2-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,2-Dichloroethene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
2,2-Dichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

<u>Sample ID:</u>	METHOD	SAMPLING		
	BLANK	BLANK		
<u>JEL ID:</u>	B-5375-03	B-5375-04	<u>Practical</u>	<u>Units</u>
			<u>Quantitation</u>	
			<u>Limit</u>	
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)
trans-1,3-Dichloropropene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Freon 113	ND	ND	0.008(8.0)	µg/L(µg/m3)
Hexachlorobutadiene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Isopropylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
4-Isopropyltoluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Methylene chloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Naphthalene	ND	ND	0.008(8.0)	µg/L(µg/m3)
n-Propylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Styrene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1,2-Tetrachloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2,2-Tetrachloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Tetrachloroethylene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Toluene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trichlorobenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,1-Trichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,1,2-Trichloroethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichloroethylene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Trichlorofluoromethane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,3-Trichloropropane	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,2,4-Trimethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
1,3,5-Trimethylbenzene	ND	ND	0.008(8.0)	µg/L(µg/m3)
Vinyl chloride	ND	ND	0.008(8.0)	µg/L(µg/m3)
Xylenes	ND	ND	0.008(8.0)	µg/L(µg/m3)
MTBE	ND	ND	0.008(8.0)	µg/L(µg/m3)
Ethyl-tert-butylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
Di-isopropylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-amylmethylether	ND	ND	0.008(8.0)	µg/L(µg/m3)
tert-Butylalcohol	ND	ND	0.040 (40)	µg/L(µg/m3)
TPH Gasoline Range	ND	ND	0.080(80)	µg/L(µg/m3)
TIC:				
n-propanol/n-pentane	ND	ND	0.008(8.0)	µg/L(µg/m3)
Dilution Factor	1	1		
Surrogate Recoveries:				OC Limits
Dibromofluoromethane	115%	112%		75 - 125
Toluene-d ₈	89%	92%		75 - 125
4-Bromofluorobenzene	100%	116%		75 - 125
	B1-091212- CHECKS_1	B1-091212- CHECKS_1		

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client: Ami Adini Associates, Inc.
Client Address: 4130 Cahuenga Blvd. Suite 113
 Los Angeles, CA 91602

Report date: 9/13/2012
JEL Ref. No.: B-5375

Attn: Larry Witwer

Date Sampled: 9/12/2012
Date Received: 9/12/2012

Project: Swanson.p01
Project Address: 21682 Amaryllis Court
 Wildomar, CA 92595

Date Analyzed: 9/12/2012
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample Spiked: JEL ID:	Ambient Air		GC#: B1-091212-CHECKS_1			
	B-5375-06	B-5375-07	B-5375-05			
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	82%	87%	5.7%	70-130	99%	70-130
Benzene	111%	111%	0.1%	70-130	104%	70-130
Trichloroethylene	99%	98%	0.8%	70-130	93%	70-130
Toluene	104%	102%	2.0%	70-130	103%	70-130
Chlorobenzene	98%	103%	4.7%	70-130	96%	70-130
TPH Gasoline Range	99%	100%	1.4%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	125%	120%		75-125	115%	75-125
Toluene-d ₈	90%	88%		75-125	90%	75-125
4-Bromofluorobenzene	108%	106%		75-125	90%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

Chain-of-Custody Record

Client
Aeri Admin & Associates

Project Name
Swanson

Project Address
21692 Amargyllis Court
Wildomar, CA 92595

Project Contact

Date
9/12/2012

Client Project #

Turn Around Requested:

Immediate Attention
 Rush 24-48 Hours
 Rush 72-96 Hours
 Normal
 Mobile Lab

SOIL GAS

Purge Number: 1P 3P 7P 10P

Purge Rate: 250 cc/min

Shut in Test: Y / N

Tracer:
 n-propanol
 n-pentane
 1,1-DFA
 Helium

Analysis Requested

Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)

EPA 8260B

Magnehelic Vacuum (In H₂O)

Number of Containers

JEL Project #
B-5375

Page
1 of 1

Lab Use Only

Sample Condition as Received:
Chilled yes no
Sealed yes no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix	Soil (S)	Sludge (SL)	Aqueous (A)	Soil Gas (SG)	Remarks/Special Instructions
21711-SS			9/12	15:40		B-5375-01	5b	x				5 2
216991-SS			9/12	15:55		B-5375-02	5b	x				5 2

1 Relinquished by (signature) <i>Walter M...</i>	Date 9/12/12	2 Received by (signature) <i>My...</i>	Date 9/12/12	Total Number of Containers
Company	Time	Company JONES	Time	
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

APPENDIX B

Boring Logs



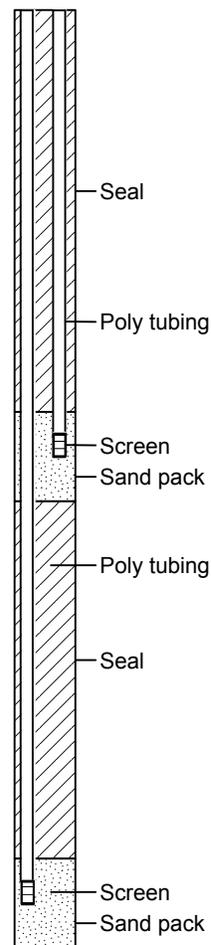
LOG OF BORING B1

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continuous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B1 TOC Elev.:
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery				
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B1-3	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0			
		B1-5	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, trace gravel and clay, no HCO, no HCS	0.0			
		B1-10	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0			
10.5					Boring terminated at 10.5 feet bgs. No groundwater encountered. Tubing removed upon completion of soil-gas sampling.				



Gabriele Baader

PROFESSIONAL GEOLOGIST
 GABRIELE E. BAADER
 NO. 7015
 EXP. APR. 30, 2014
 STATE OF CALIFORNIA



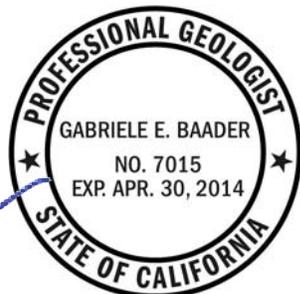
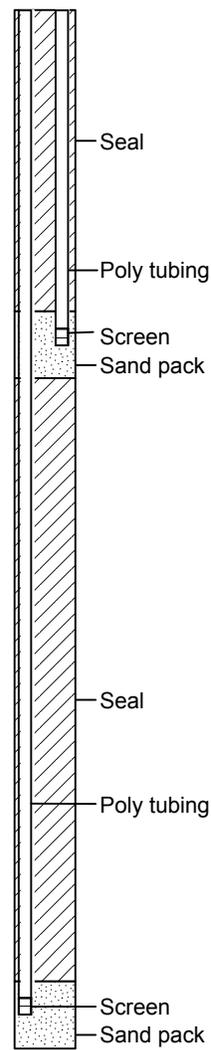
LOG OF BORING B1b

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B1b TOC Elev.:
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery				
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B1-3	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0			
		B1-5	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, trace gravel and clay, no HCO, no HCS	0.0			
		B1-10	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0			
			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS				
15					Boring terminated at 15.5 feet bgs. No groundwater encountered. Second boring completed adjacent to original B1 boring to install soil gas probe at 15 feet bgs. Tubing removed upon completion of soil-gas sampling.				
20									



Handwritten signature



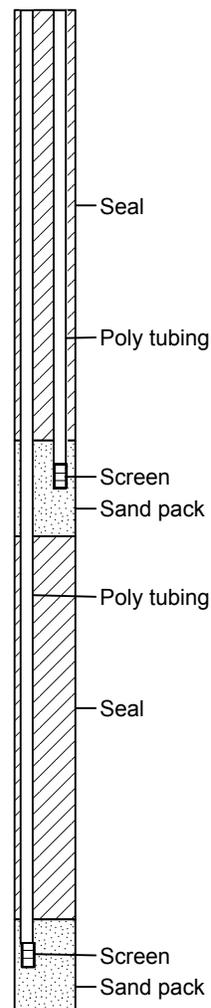
LOG OF BORING B2

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B2 TOC Elev.:
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery				
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B2-3	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0			
5			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, trace coarse and clay, no HCO, no HCS	0.0			
10		B2-10	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0			
Boring terminated at 10.5 feet bgs. No groundwater encountered. Tubing removed upon completion of soil-gas sampling.									



Gaader

09-14-2012 \\SERVER\Company\JUST-ENVIRO\Clients\Clients\FOLDERS\p-T\Swanson\Contracts\01\Reports\AA&A\2012-09 Phase II\B1.bor



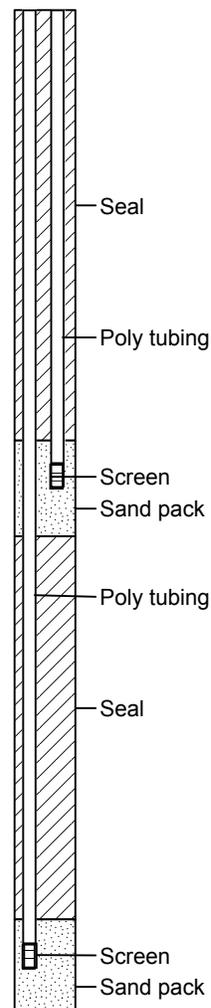
LOG OF BORING B3

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continuous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	DESCRIPTION	OVA/PID READING (ppm)	Sample Condition	Blow Count	Recovery Interval	Well: B3 TOC Elev.:
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).					
		B3-2				0.0				
		B3-3	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)					
		B3-5								
5			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.1				
		B3-10	SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, clay content increases with depth, no HCO, no HCS	0.7				
10										
Boring terminated at 10.5 feet bgs. No groundwater encountered. Tubing removed upon completion of soil-gas sampling.										



Handwritten signature

09-14-2012 \\SERVER\Company\JUST-ENVIRO\CLIENTS\CLIENT FOLDERS\P-T\Swanson\Contracts\01\Reports\AA&A\2012-09 Phase II\B1.bor



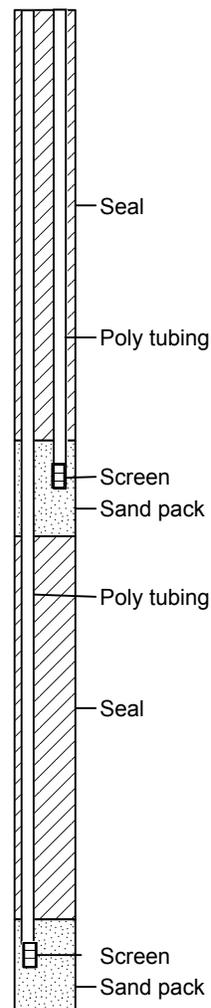
LOG OF BORING B4

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	DESCRIPTION	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B4 TOC Elev.:
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B4-2				0.0			
			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)				
		B4-3							
		B4-5				0.2			
			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS				
		B4-10				0.1			
			SW		SAND, well graded, dark brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, clay content increases with depth, no HCO, no HCS				
<p>Boring terminated at 10.5 feet bgs.</p> <p>No groundwater encountered.</p> <p>Tubing removed upon completion of soil-gas sampling.</p>									



Handwritten signature

09-14-2012 \\SERVER\Company\JUST-ENVIRO\Clients\Clients\FOLDERS\P-T\Swanson\Contracts\01\Reports\AA&A\2012-09 Phase II\B1.bor



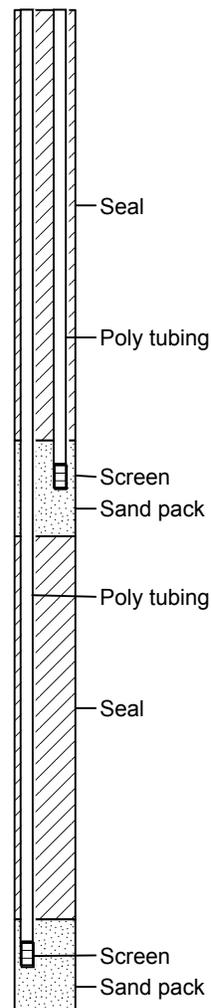
LOG OF BORING B5

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continuous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 21682, 21694, 21699, 21706, 21711,
 21730, and 21735 Amaryllis Court
 Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B5 TOC Elev.:
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery				
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B5-2	SW		SAND, well graded, brown (10YR4/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0			
		B5-3							
		B5-3.5							
		B5-5	SP		SAND, poorly graded, dark gray (10YR4/1), slightly moist, non-plastic, medium-grained, no HCO, no HCS	0.0			
			SW		SAND, well graded, brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, trace clay, no HCO, no HCS	0.0			
		B5-10	SW		SAND, well graded, brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, trace clay, no HCO, no HCS	0.0			
Boring terminated at 10.5 feet bgs. No groundwater encountered. Tubing removed upon completion of soil-gas sampling.									



Handwritten signature

09-14-2012 \\SERVER\Company\JUST-ENVIRO\Clients\Clients\FOLDERS\P-T\Swanson\Contracts\01\Reports\AA&A\2012-09 Phase II\B1.bor



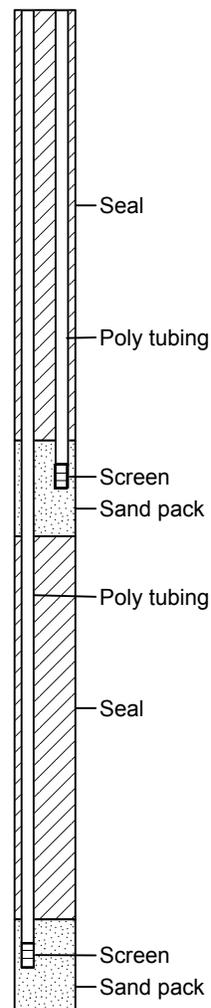
LOG OF BORING B6

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 Autumnwood Development
 Amaryllis Court, Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval	Well: B5 TOC Elev.:
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery				
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).				
		B6-2	SW		SAND, well graded, brown (10YR4/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0			
		B6-3	SW						
		B6-5	SW		SAND, well graded, brown (10YR4/3), wet possibly due to irrigation, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0			
		B6-10	SW		SAND, well graded, brown (10YR3/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0			
<p>Boring terminated at 10.5 feet bgs.</p> <p>No groundwater encountered.</p> <p>Tubing removed upon completion of soil-gas sampling.</p>									



Gabriele Baader



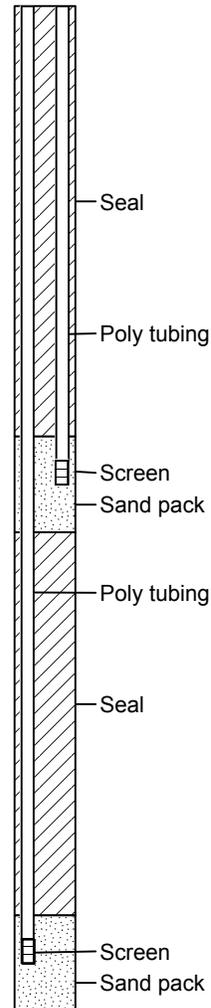
LOG OF BORING B7

(Page 1 of 1)

Date Started : September 12, 2012
 Date Completed : September 12, 2012
 Casing Diameter : N/A
 Drilling Method / Driller : Direct-Push / Millenium
 Drilling Co. Rep. : S. Willey / T. Meiners
 Sampling Method : Continous Core
 Boring Diameter : 2-inches
 Logged by : Matthew deHaas
 Prepared By : Matthew deHaas
 Reviewed by : Gabriele Baader

Project: Swanson.p01
 Environmental Site Assessment
 Autumnwood Development
 Amaryllis Court, Wildomar CA, CA 92595

Depth in Feet	Surface Elevation	Sample Identification Number	USCS	GRAPHIC	Sample Condition	OVA/PID READING (ppm)	Sample Condition	Blow Count Recovery Interval
					<input type="checkbox"/> Disturbed <input type="checkbox"/> Continuous Core (undisturbed) <input type="checkbox"/> No Recovery			
					DESCRIPTION			
0			SW		Grass surface. Hand-augered to 4 feet below ground surface (bgs).			
		B7-2	SW		SAND, well graded, brown (10YR4/3), moist, non-plastic, fine- to coarse-grained, no hydrocarbon odor (HCO), no hydrocarbon staining (HCS)	0.0		
		B7-3	SW					
			SW		Same as above except yellowish red (5YR4/6)			
		B7-5	SW		SAND, well graded, brown (10YR4/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0		
5			SW					
		B7-10	SW		SAND, well graded, brown (10YR4/3), moist, non-plastic, fine- to coarse-grained, no HCO, no HCS	0.0		
10								



Boring terminated at 10.5 feet bgs.
 No groundwater encountered.
 Tubing removed upon completion of soil-gas sampling.

Handwritten signature

