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## SUPPLEMENTAL SUBSURFACE INVESTIGATION REPORT



2222-2224 SOUTH ESCONDIDO BLVD., ESCONDIDO, CALIFORNIA

Prepared For:

Warmington Residential  
3090 Pullman Street  
Costa Mesa, CA 92626

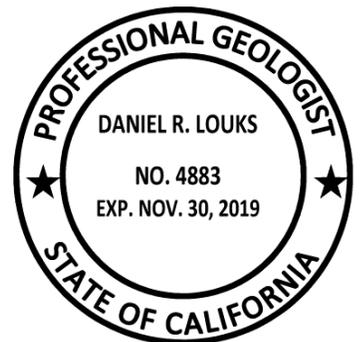
Hillmann Project Number C3-7328

November 13, 2018

Written By:  
Hillmann Consulting, LLC

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Dan Louks  
Professional Geologist 4883



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**Your Property. Our Priority.**

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November 13, 2018

Mr. William Inghram  
Warmington Residential  
3090 Pullman Street  
Costa Mesa, CA 92626

**RE: Supplemental Subsurface Investigation Report**  
2222-2224 South Escondido Boulevard  
Escondido, California  
Hillmann Project Number: C3-7328

Dear Mr. Inghram:

Hillmann Consulting, LLC, is pleased to provide this Supplemental Subsurface Investigation Report prepared for the above referenced property.

This report is for the exclusive use of the entities named on the front cover, its affiliates, designates and assignees, rating agencies, prospective bond holders and bond holders, and no other party shall have any right to rely on any service provided by Hillmann Consulting, LLC, without prior written consent.

We appreciate the opportunity to provide environmental due diligence services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact the Project Manager at 714-634-9500.

Very Truly Yours,  
Hillmann Consulting, LLC

Brandon Clements  
Partner; Western Regional Director

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## 1.0 INTRODUCTION / BACKGROUND

Hillmann Consulting, LLC (Hillmann) conducted a Supplemental Subsurface Investigation at 2222-2224 South Escondido Blvd., Escondido, California (**Figure 1**). The subject Property is located on the east side of South Escondido Boulevard between Brotherton Road and Sherman Way in a mixed use commercial-residential section of Escondido. The Property occupies 2.74 acres and includes a commercial building that was constructed in 1949 and a residence built in 1979. The Property is being considered for redevelopment for residential purposes.

In October 2018, Hillmann completed a Phase I Environmental Site Assessment for the Property. Results indicate the Property has been operated as a welding shop and a junkyard from around 1949 to the present. Hillmann identified the potential for soil contamination from heavy metals, TPH, PCBs, and VOCs due to past and current operations as a junkyard as a recognized environmental condition that justified preliminary subsurface investigation. These results are presented in Hillmann's "*Phase I Environmental Site Assessment Report*" dated October 19, 2018.

In October 2018, Hillmann completed a Limited Phase II Subsurface Investigation at the Property that included soil and soil gas sampling to identify potential contamination from the historical operations at the site. The investigation was an independent assessment of the site constrained by time and cost factors as part of a self-directed effort. The objective of this work was to determine the current representative subsurface conditions in targeted areas of the site. This investigation was not intended to meet the more stringent requirements of a regulatory driven assessment.

The results of the initial investigation indicated low levels of PCE that exceed current DTSC screening levels for future residential construction, indicating a potential vapor intrusion risk that required additional investigation. In addition, two soil samples had high concentrations of the heavy metals lead and cadmium that exceed current residential screening levels.

Based on these results, Hillmann completed a supplemental investigation that included additional soil and soil gas sampling to attempt to define the vertical and lateral extents of contamination. Results from soil sampling for lead and cadmium indicate the lateral extent of contamination is not yet defined, but the vertical extent of contamination is limited to surficial soil (<1.5 feet below grade). This material will require excavation and removal followed by a confirmation soil sampling program to define the final extent of contamination.

Results from supplemental soil gas sampling suggest a limited zone of subsurface contamination with marginal levels that exceed current screening criteria but are well within range of a positive risk management decision. Accordingly, Hillmann recommends consideration of mitigation strategies to address heavy metal and volatile organic compounds, or providing this data to a qualified health risk professional or an appropriate agency to determine if residential construction in the target area is suitable.

## **2.0 GEOLOGY/HYDROGEOLOGY**

Based on the drilling logs, shallow soils beneath the site consist primarily of silty clay, silt, and clayey sand in the upper 15 feet of section, the deepest interval explored by drilling in this investigation. Groundwater was not encountered during drilling to 15 feet below grade. Descriptions of the sediments encountered during drilling are presented in the drilling logs (**Appendix C**).

Based on information available on the GeoTracker website, groundwater is present at about 18-36 feet below grade and flows southeast at a site located 500 feet south of the Property (Former Arco Station 1948, 2306 S. Escondido Blvd., Escondido-Global ID T0607301190).

## **3.0 SITE INVESTIGATION**

On October 24, 2018, Hillmann installed 8 borings (HSB1-HSB8) in targeted locations across the Property including inside the welding shop and near the junk yard piles. The borings were installed to 3-4 feet below grade using a using a hand auger tool. The locations of the borings are indicated on **Figure 2**.

During drilling, the soil column was logged by a California Professional Geologist and the soil was screened in the field using a photo-ionization detector (PID). Soil samples were obtained at 0.25 to 0.5 and at 2.5 feet below grade and were preserved for laboratory analysis. The shallow sample from each boring was analyzed for carbon chain hydrocarbons corresponding to gasoline, diesel fuel, and oil weights (C4-C12, C13-C22, and C23-C40 ranges, respectively) by EPA Method 8015M and for heavy metal content by EPA Method 6010B. A&R Laboratories of Ontario, California analyzed the samples.

Five of the eight borings (HB1-HB5) were completed as temporary soil gas sampling probes (HSG1-HSG5) with sampling tips set at 3-4 feet below grade. The probes consist of plastic micro-porous vapor implants that are approximately 2 inches long with a 0.5-inch outside diameter, connected to 0.25-inch outside diameter nylaflow tubing that extended above the surface. The annulus around the vapor implants was backfilled with approximately 0.5 feet of screen-washed #3 sand. The probes were sealed using bentonite placed immediately above the sand pack to provide a secure borehole seal. The probes were finished with gas-tight fittings at the surface pending vapor purging and sampling. The probes were removed from the subsurface after vapor sampling as required by local code.

The soil gas sampling probes were allowed to equilibrate for about 4 hours before collecting vapor samples. Prior to vapor sampling, shut-in and leak tests were conducted on the probes. The probe head was attached to the sampling train assembly of Nylaflow tubing, valves, and fittings and connected to a purge pump. The pump was used to evacuate the sealed system using an applied vacuum of 100 inches of water column (in. WC). The vacuum on each probe was monitored for 90 seconds with the sampling train system sealed. After the shut-in test was validated, the sampling train was leak tested. Liquid isobutylene was applied around all connections in the sampling train to evaluate whether the system was sealed from ambient air leaks. A detection of 10 times the reporting limit of this compound might suggest that ambient air leakage had occurred.

The purpose of purging is to remove stagnant air from the vapor sampling train to ensure representative samples are obtained. The probes were purged using an adjustable vacuum pump set at 200 mL/minute. During purging, the soil gas was monitored for VOC, oxygen, and carbon dioxide content using a Mini-Rae 2000 multi gas detector to ensure that non-atmospheric formation air was being sampled (**Appendix D**).

After purging three volumes through the system, vapor samples were collected from the probes on October 24, 2018. During sampling, the purge pump was operated at 200 mL/minute, and the vacuum was monitored to ensure it was below 100 in. WC. Vacuum applied below this level helps ensure chemical partitioning from pore water to soil gas and the stress on the air seals are both minimized. The samples were containerized in Tedlar bags which were delivered to the laboratory for analysis. Fresh tubing was used on each sampling train between holes. The soil gas samples were tested for VOC using EPA Method 8260B by A&R Laboratories of Ontario, California.

### **3.1 Supplemental Sampling**

On November 6, 2018, Hillmann returned to the site and installed six additional probes in the welding shop area using the same procedures outlined above. Probes HSG7-HSG10 were installed to 4 feet below grade in perimeter locations around the welding shop. Probe HSG6 was installed to 15 feet below grade to attempt to define the vertical extent of contamination, and probe HSG1-R was installed in the same location as original probe HSG1 to 2.5 feet below grade to provide corroboration of the original data. In addition, Hillmann installed three perimeter soil borings around original borings HB3 and HB7 as an attempt to define the lateral extent of lead and cadmium contamination identified in these areas. Soil samples were obtained at 0.25 and 1.25 feet below grade in each of the six perimeter borings (HB3a-HB3c and HB7a-HB7c). The twelve soil samples were analyzed for lead and cadmium.

### **3.2 Laboratory Results**

Results from the initial soil sampling indicated two samples had detectable levels of petroleum hydrocarbons with 15 mg/Kg diesel range hydrocarbons in sample HB3-0.5 and 18 mg/Kg diesel range hydrocarbons in sample HB6-0.5. These results are summarized in **Table 1**. The results from heavy metal analysis indicated two samples had potentially significant metal concentrations that exceed current DTSC residential screening levels. Sample HB3-0.5 had 22.9 mg/Kg cadmium and 394 mg/Kg lead, exceeding the DTSC Screening Levels of 5.2 and 80 mg/Kg, for these respective metals. In addition, sample HB7-0.25 had 146 mg/Kg lead. To determine if these concentrations persisted with depth or were limited to the very shallow surficial soil, the deeper sample in each boring (HB3-2.5 and HB7-2.5) was analyzed for cadmium and lead. Results indicated the deeper samples in both locations were well below current screening levels (no detectable cadmium and maximum of 3.61 mg/Kg lead). These results are summarized in **Table 1A**.

Results from initial soil gas sampling indicated four of the five soil gas samples had detectable levels of VOC including toluene and tetrachloroethene (PCE). The toluene concentrations ranged from 0.10 to 0.14 ug/L and the PCE levels ranged from 0.80 to 0.84 ug/L. No other

VOC was detected in the samples. The detected concentrations were compared to the Regional Screening Level (RSL) guidelines provided by EPA and modified by DTSC for use in California. These guidelines are based on human health risk factors for residential and industrial settings and are commonly used as screening tools. The screening criteria uses defined indoor air concentrations based on human health risk factors that are modified using a default attenuation factor provided by DTSC for soil gas. The attenuation factor for new residential construction is 0.001. Results indicated the toluene levels were all well below the screening criteria, however each of the detected PCE concentrations exceeded the future construction residential screening level of 0.46 ug/L for PCE. These results are summarized in **Table 2**.

The results from supplemental work indicated three of the perimeter borings had cadmium levels greater than the current residential screening level of 5.2 mg/Kg and one sample had lead levels greater than the 80 mg/Kg screening level. Each of the samples that exceeded these screening levels was detected in the shallow sample at 0.25 feet, and in each case, the deeper sample had insignificant levels. This result confirms the previous finding that the heavy metal contamination is limited to very shallow depths, however, the lateral extent of contamination is not fully defined and extends a minimum of 35 feet south and 20 feet east of the original HB3 location and 30 feet north of the original HB7 location. These results are summarized in **Tables 1 and 1A**.

The results from supplemental soil gas sampling indicated PCE was detected in just two of the new probes. Deep probe HSG6 (15 feet below grade) had 0.50 ug/L PCE, which is considerably lower than the shallow samples taken in October but still greater than the future residential screening level (0.46 ug/L). Sample HSG1-R had lower concentrations of PCE at 2.5 feet below grade than the original probe had at 3 feet below grade with 0.15 ug/L. These results confirm relatively low concentrations of PCE in the subsurface that marginally exceed current conservative screening levels. These results are summarized in **Table 2**. The laboratory reports from each phase of investigation are included in **Appendix B**.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

The subject site is a junkyard and welding shop that has been in operation from 1949 to the present. The eastern portion of the Property also includes a residence. The Property is being considered for redevelopment as housing. The historical and current site use was identified as a recognized environmental condition that justified preliminary subsurface investigation to assess possible environmental concerns given the proposed sensitive redevelopment plan.

In October 2018, Hillmann installed 7 soil borings in targeted areas of the site including the welding shop and the junkyard areas. Results from soil sampling indicated no significant concentrations of petroleum hydrocarbons in soil; however, significant concentrations of lead and cadmium were detected in two areas that exceed current residential screening levels. Deeper soil sampling in each location at 2.5 feet below grade indicates the impacted soil is limited the very near surface soil. Supplemental soil sampling in November 2018 confirms the vertical extent of impacted soil is limited to very shallow depths (<1.5-2.5 feet); however, the lateral extent of near-surface contamination is fully defined and extends a minimum of 35 feet south and 20 feet east of the original HB3 location and 30 feet north of the original HB7

location. The impacted soil in these areas will need to be addressed by excavation and removal (**Figure 3**). This task will include confirmation soil sampling during excavation that will be used to define the final lateral extent of heavy metal contamination in soil. Hillmann recommends this strategy due to the apparent limited depth of contamination, which limits the overall expected volume of soil requiring removal (and therefore the cost), obviating the need for precise definition of the contamination limit at this time.

The results from the initial soil gas sampling event indicated three samples obtained in the welding shop area had PCE levels that exceed the screening criteria for future residential development with a maximum of 0.84 ug/L PCE. To gauge the magnitude of the impact, Hillmann conducted supplemental testing in November 2018 that included deeper and shallower soil gas sampling than in the initial work. In addition, four perimeter locations were tested to gauge the lateral extent of contamination.

Results indicate the perimeter locations did not have detectable levels of PCE or actionable levels of toluene and no other VOC was detected in any of the samples. However, the soil gas at 15 feet below grade had 0.50 ug/L PCE, which is lower than the original shallow soil gas levels (though it still exceeds the screening level of 0.46 ug/L). The shallower soil gas sample at 2.5 feet had just 0.15 ug/L PCE, less than the initial sampling result that had a maximum 0.84 ug/L PCE (**Figure 4**).

Overall these results suggest relatively low levels of PCE in the shallow soil gas that marginally exceed conservative screening levels for future residential use. However, there are several possible site specific mitigating factors that could influence this case. The results of this work show that the deeper soil gas PCE levels are less than the near surface concentrations suggesting a limited vertical distribution and source of contamination. In addition, the shallowest soil gas sample had PCE levels that were well below the screening guideline. These factors suggest that a proper risk assessment study could yield a positive risk management decision, especially if additional preventative measures are undertaken as part of the proposed development. This might include excluding the welding shop area from proposed housing using it instead for roadways or parking. In addition, if this area was provided with liquid boot protection, it could possibly be used for residential purposes with no other action required. These factors need to be considered by a risk management professional with experience in the field or the California's Department of Toxic Substances Control (DTSC) who could render a binding risk management decision on the case. Accordingly, Hillmann recommends pursuing a proper risk assessment and/or considering possible mitigating factors if necessary.

## **5.0 LIMITATIONS**

This Subsurface Investigation was performed in accordance with generally and currently accepted engineering practices and principles; however, the procedures and methodologies used in this investigation are not intended to meet all specific regulatory guidelines as this work was completed as a self-directed effort. Although the data in this report is indicative of subsurface conditions in areas investigated, no further conclusions regarding the absence or presence of subsurface contamination in other areas of the site should be construed or inferred other than those expressly stated in this report. The conclusions made are based on information

obtained from field observations, independent laboratory analytical results, and from current and relevant Federal, State, regional, and local agencies.

**TABLE 1**  
**Summary of Soil Sampling Results (mg/Kg)**

Sample ID	Heavy Metals Above Screening Levels	PCBs	TPHg C4-C12	TPHd C13-C22	TPH-Oil C23-C40
Sampled October 24, 2018					
HB1-0.5	None	--	ND<0.20	ND<10	ND<20
HB2-0.5	None	--	ND<0.20	ND<10	ND<20
HB3-0.5	Lead, Cadmium	--	ND<0.20	15	ND<20
HB3-2.5	None	--	--	--	--
HB4-0.25	None	--	ND<0.20	ND<10	ND<20
HB5-0.5	None	--	ND<0.20	ND<10	ND<20
HB6-0.5	None	--	ND<0.20	18	ND<20
HB7-0.25	Lead	--	ND<0.20	ND<10	ND<20
HB7-2.5	None	--	--	--	--
HB8-0.25	None	--	ND<0.20	ND<10	ND<20
Sampled November 6, 2018					
HB3a-0.25	Cadmium	--	--	--	--
HB3a-1.5	None	--	--	--	--
HB3b-0.25	None	--	--	--	--
HB3b-1.5	None	--	--	--	--
HB3c-0.25	Lead, Cadmium	--	--	--	--
HB3c-1.5	None	--	--	--	--
HB7a-0.25	None	--	--	--	--
HB7a-1.5	None	--	--	--	--
HB7b-0.25	Cadmium	--	--	--	--
HB7b-1.5	None	--	--	--	--
HB7c-0.25	None	--	--	--	--
HB7c-1.5	None	--	--	--	--
<b>SFRWQCB Tier 1 ESL</b>	<b>--</b>	<b>Var.</b>	<b>100</b>	<b>230</b>	<b>5,100</b>

Notes: ND - Not Detected. San Francisco Regional Water Quality Control Board Environmental Screening Levels (SFRWQCB ESLs) are human health risk based screening levels based on a generic site conceptual model designed for use at residential sites (Tier 1). The heavy metal results are fully summarized in Table 1A. Please refer to lab report for complete results.

**TABLE 1A**  
**Summary of Heavy Metal Results (mg/Kg)**

Sample ID	Arsenic	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
Sampled October 24, 2018										
HB1-0.5	ND<1	75.6	ND<0.5	38.7	8.72	16.8	19.4	6.23	53.6	44.2
HB2-0.5	ND<1	73.9	ND<0.5	50.2	9.08	38.6	70.1	7.42	58.9	51.9
HB3-0.5	3.53	195	22.9	163	21.7	175	394	52.0	56.0	1,480
HB3-2.5	-	--	ND<0.5	--	--	--	2.28	--	--	--
HB4-0.25	3.33	336	1.36	70.3	6.42	65.0	23.0	36.6	27.9	256
HB5-0.5	ND<1	78.2	ND<0.5	19.1	6.76	11.0	13.1	4.28	28.4	29.8
HB6-0.5	ND<1	76.7	ND<0.5	37.5	8.51	13.8	20.8	6.07	52.0	224
HB7-0.25	ND<1	69.7	2.94	45.0	7.55	22.7	146	8.14	51.3	129
HB7-2.5	--	--	ND<0.5	--	--	--	3.61	--	--	--
HB8-0.25	ND<1	82.0	0.557	42.7	8.48	20.0	10.5	8.59	50.4	46.0
Sampled November 6, 2018										
HB3a-0.25	--	--	26.3	--	--	--	65.4	--	--	--
HB3a-1.5	--	--	ND<0.5	--	--	--	18.9	--	--	--
HB3b-0.25	--	--	4.26	--	--	--	78.1	--	--	--
HB3b-1.5	--	--	ND<0.5	--	--	--	2.94	--	--	--
HB3c-0.25	--	--	9.99	--	--	--	83.6	--	--	--
HB3c-1.5	--	--	ND<0.5	--	--	--	3.18	--	--	--
HB7a-0.25	--	--	0.586	--	--	--	15.6	--	--	--
HB7a-1.5	--	--	ND<0.5	--	--	--	1.96	--	--	--
HB7b-0.25	--	--	7.38	--	--	--	25.4	--	--	--
HB7b-1.5	--	--	ND<0.5	--	--	--	3.11	--	--	--
HB7c-0.25	--	--	0.860	--	--	--	17.2	--	--	--
HB7c-1.5	--	--	ND<0.5	--	--	--	2.94	--	--	--
<b>Residential RSL</b>	<b>0.11</b>	<b>15,000</b>	<b>5.2*</b>	<b>36,000</b>	<b>23</b>	<b>3,100</b>	<b>80*</b>	<b>490*</b>	<b>390*</b>	<b>23,000</b>
<b>Industrial RSL</b>	<b>0.36</b>	<b>220,000</b>	<b>7.3*</b>	<b>170,000</b>	<b>350</b>	<b>47,000</b>	<b>320*</b>	<b>3,100*</b>	<b>1,000*</b>	<b>350,000</b>
<b>DTSC Bkgrnd</b>	<b>12</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

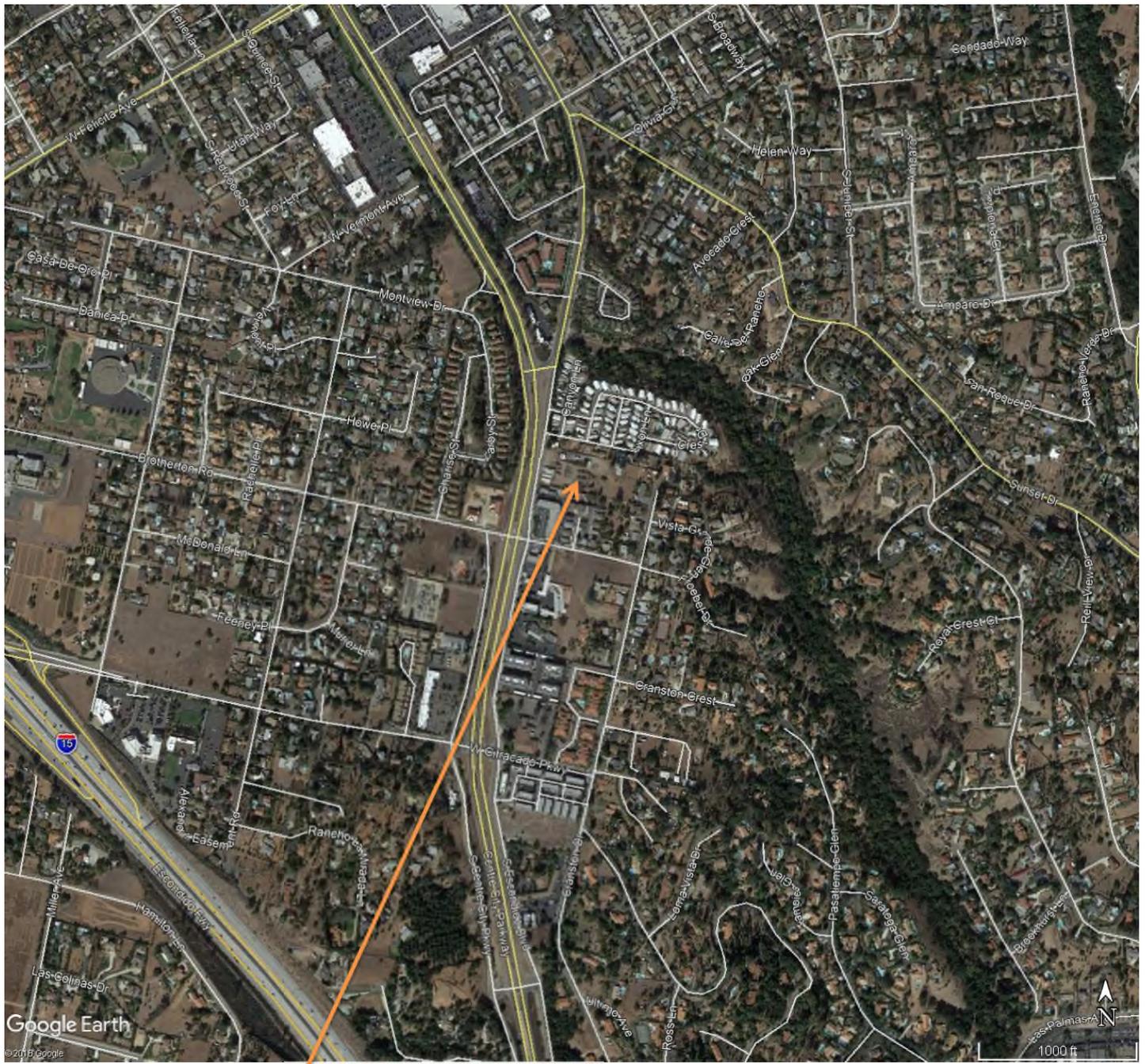
Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC in residential and commercial settings. DTSC Background Concentration is based on statistical study of sites throughout southern California. This concentration may be used as a screening level for anthropogenic and naturally occurring levels of arsenic in soil in southern California. \* - Values modified by DTSC HERO Note 3. Please refer to lab report for complete results.

**TABLE 2**  
**Summary of Soil Gas Sampling Results (ug/L)**

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	TCE	PCE	Other VOC
Sampled October 24, 2018							
HSG1-3	ND<0.05	0.14	ND<0.1	ND<0.2	ND<0.1	0.81	ND
HSG2-3	ND<0.05	0.10	ND<0.1	ND<0.2	ND<0.1	0.80	ND
HSG3-4	ND<0.05	0.13	ND<0.1	ND<0.2	ND<0.1	0.84	ND
HSG4-4	ND<0.05	0.11	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
HSG5-4	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
Sampled November 6, 2018							
HSG6-15	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	0.50	ND
HSG7-4	ND<0.05	0.13	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
HSG8-4	ND<0.05	0.24	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
HSG9-4	ND<0.05	0.23	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
HSG10-4	ND<0.05	0.38	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
HSG1-R-2.5	ND<0.05	ND<1	ND<0.1	ND<0.2	ND<0.1	0.15	ND
<i>Future Residential RSL</i>	<i>0.097*</i>	<i>310*</i>	<i>1.1</i>	<i>100</i>	<i>0.48</i>	<i>0.46*</i>	<i>--</i>
<i>Commercial RSL</i>	<i>0.42*</i>	<i>1,300*</i>	<i>4.9</i>	<i>440</i>	<i>3.0</i>	<i>2.0*</i>	<i>--</i>

Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC to determine Health Risk in residential and commercial settings. Future Residential accounts for improved construction methods in new buildings. \*-Values modified for California by DTSC HERO Note 3. Screening levels for soil gas calculated using indoor air values and attenuation factors provided by DTSC. Please refer to laboratory report for complete results.

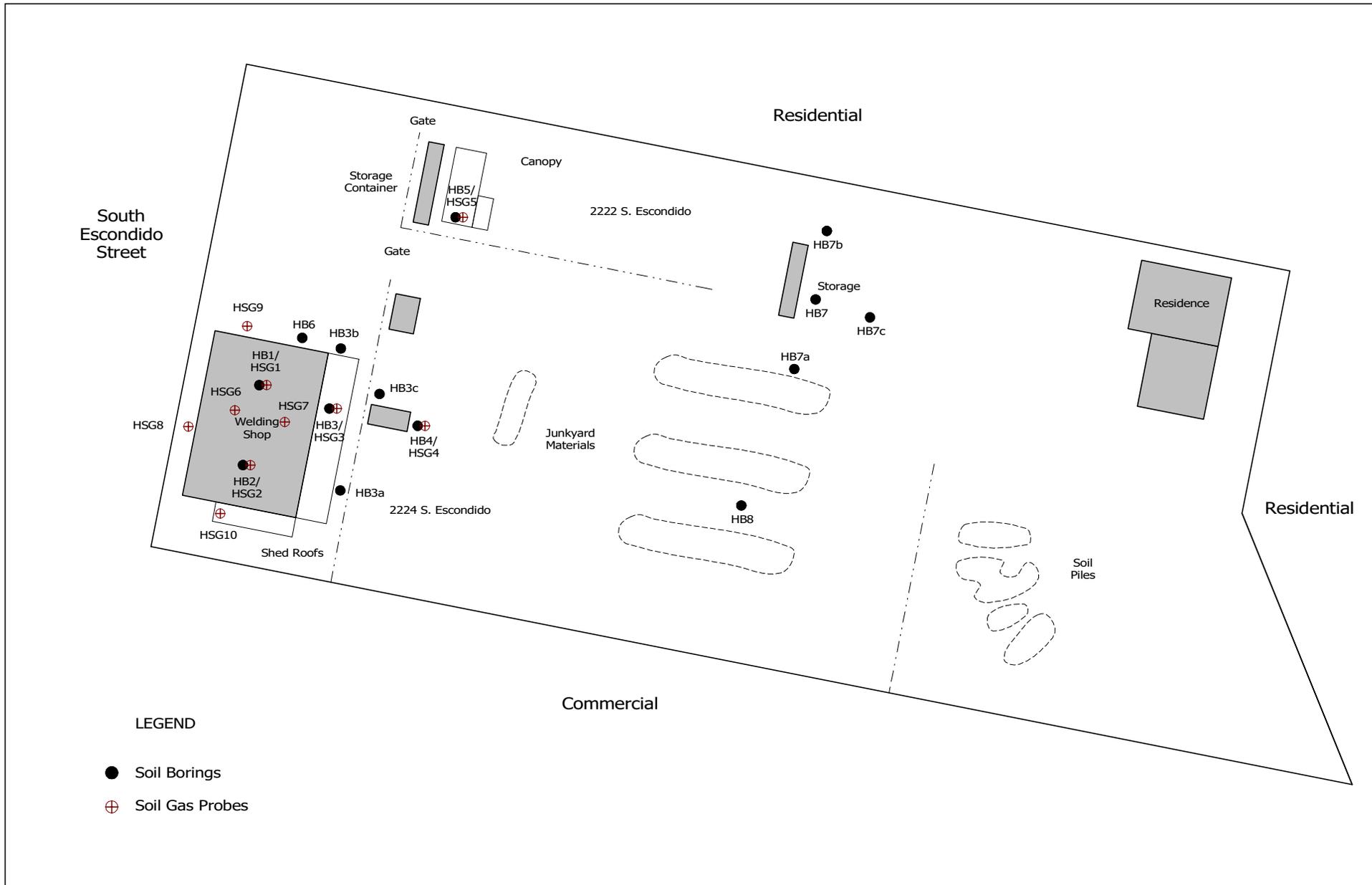
# FIGURES



SITE

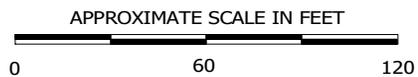
**FIGURE 1**

SITE VICINITY MAP  
COMMERCIAL PROPERTY  
2222-2224 South Escondido Boulevard  
Escondido, California

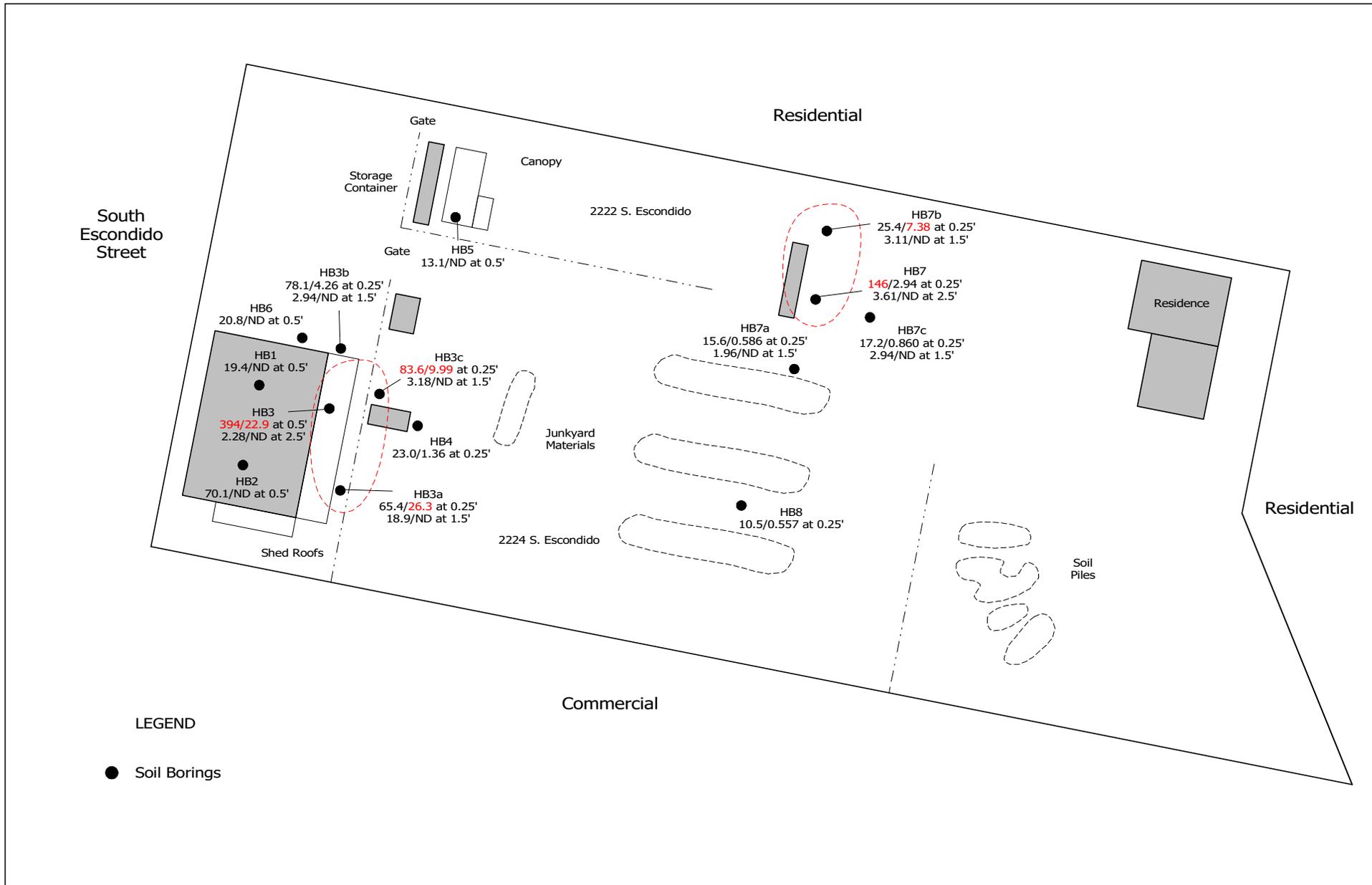


LEGEND

- Soil Borings
- ⊕ Soil Gas Probes

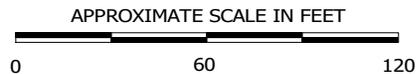


**FIGURE 2**  
**GENERAL SITE PLAN**  
**COMMERCIAL PROPERTY**  
 2222-2224 South Escondido Boulevard  
 Escondido, California



LEGEND

● Soil Borings



**FIGURE 3**  
**DISTRIBUTION OF HEAVY METAL IMPACTED SOIL**  
**COMMERCIAL PROPERTY**  
 2222-2224 South Escondido Boulevard  
 Escondido, California  
 Lead/Cadmium Concentrations Shown in mg/Kg.

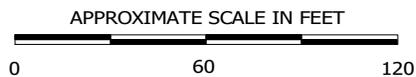
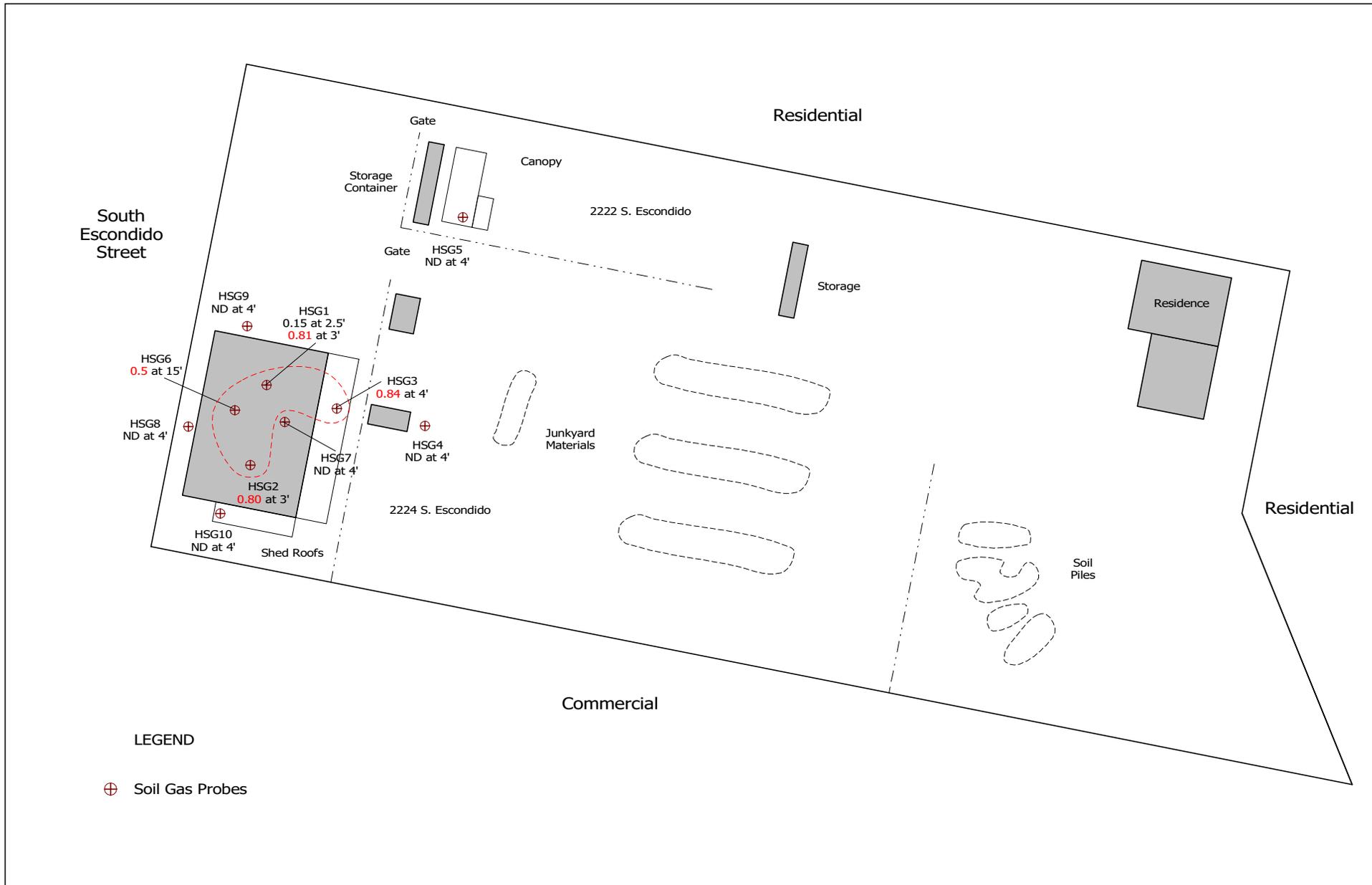


FIGURE 4  
 DISTRIBUTION OF PCE IN SOIL GAS  
 COMMERCIAL PROPERTY  
 2222-2224 South Escondido Boulevard  
 Escondido, California  
 PCE Concentrations in Soil Gas Shown in ug/L.

# APPENDIX A

## Site Photos



HB1/HSG1



HB2/HSG2



HB3/HSG3



HB4/HSG4



HB5/HSG5



HB6



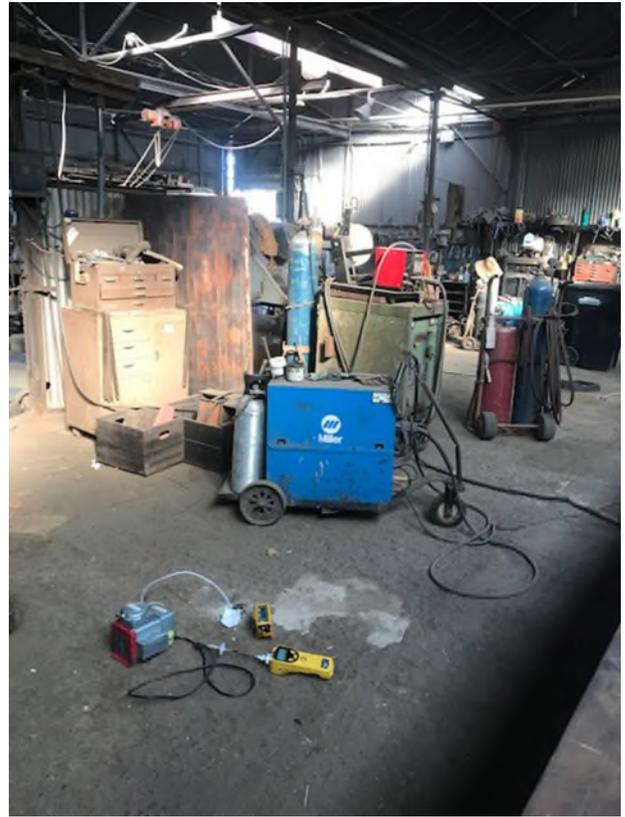
HB7



HB8



HSG6



HSG7



HSG8



HSG10

APPENDIX B  
Laboratory Reports



# A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C

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FDA#	2030513
LA City#	10261
ELAP#s	2789
	2790
	2122

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## CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President  
10/30/2018 14:23:08

Laboratory Job No. (Certificate of Analysis No.)

1810-00217

Project Name / No.

WELDING &amp; JUNK YARD / ESCONDIDO, CA

Dates Sampled (from/to)

10/24/18 To 10/24/18

Dates Received (from/to)

10/24/18 To 10/24/18

Dates Reported (from/to)

10/30/18 To 10/30/2018

Chains of Custody Received

Yes

Comments:

### Subcontracting

Organic Analyses

No analyses sub-contracted

Inorganic Analyses

No analyses sub-contracted

### Sample Condition(s)

All samples intact

### Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual Units	RL	Sample	Analyte	Result	Qual Units	RL
HB3-0.5	C13-C22	15	mg/Kg	10	HB6-0.5	C13-C22	18	mg/Kg	10



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## CERTIFICATE OF ANALYSIS

1810-00217

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/30/18  
Date Received 10/24/18  
Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HB1-0.5</b>							Date & Time Sampled: 10/24/18 @ 9:30	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	97		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>75.6</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>38.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>8.72</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>16.8</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>19.4</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>6.23</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>53.6</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>44.2</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 002 **HB2-0.5**  
Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 10:00



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1810-00217

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/30/18  
Date Received 10/24/18  
Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HB2-0.5</b>							Date & Time Sampled: 10/24/18 @ 10:00	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	98		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>73.9</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>50.2</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>9.08</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>38.6</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>70.1</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<b>1.39</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>7.42</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>58.9</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>51.9</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 003 **HB3-0.5**

Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 10:20

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ORANGE, CA 92868

Date Reported 10/30/18  
Date Received 10/24/18  
Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 <b>HB3-0.5</b>							Date & Time Sampled: 10/24/18 @ 10:20	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<b>15</b>		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	96		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<b>3.53</b>		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>195</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<b>22.9</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>163</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>21.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>175</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>394</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<b>9.86</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>52.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>56.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>1480</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 004 **HB4-0.25**  
Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 10:50

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## CERTIFICATE OF ANALYSIS

1810-00217

HILLMANN CONSULTING  
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ORANGE, CA 92868

Date Reported 10/30/18  
Date Received 10/24/18  
Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HB4-0.25</b>							Date & Time Sampled: 10/24/18 @ 10:50	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	96		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<b>3.33</b>		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>336</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<b>1.36</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>70.3</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>6.42</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>65.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>23.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<b>4.99</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>36.6</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>27.9</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>256</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 005 **HB5-0.5**

Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 11:10



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Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 <b>HB5-0.5</b>							Date & Time Sampled: 10/24/18 @ 11:10	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	99		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>78.2</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>19.1</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>6.76</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>11.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>13.1</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>4.28</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>28.4</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>29.8</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 006 **HB6-0.5**

Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 9:00

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 Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 <b>HB6-0.5</b>							Date & Time Sampled: 10/24/18 @ 9:00	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<b>18</b>		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	96		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>76.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>37.5</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>8.51</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>13.8</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>20.8</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>6.07</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>52.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>224</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 007 **HB7-0.25**  
 Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 11:45



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LA City#	10261
ELAP#s	2789
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## CERTIFICATE OF ANALYSIS

1810-00217

HILLMANN CONSULTING  
 DAN LOUKS  
 1745 W. ORANGEWOOD AVE.  
 ORANGE, CA 92868

Date Reported 10/30/18  
 Date Received 10/24/18  
 Invoice No. 83862  
 Cust # G073  
 Permit Number  
 Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 <b>HB7-0.25</b>							Date & Time Sampled: 10/24/18 @ 11:45	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	96		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>69.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<b>2.94</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>45.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>7.55</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>22.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>146</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>8.14</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>51.3</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>129</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

Sample: 008 **HB8-0.25**  
 Sample Matrix: **Soil**

Date & Time Sampled: 10/24/18 @ 12:30



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## CERTIFICATE OF ANALYSIS

1810-00217

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/30/18  
Date Received 10/24/18  
Invoice No. 83862  
Cust # G073  
Permit Number  
Customer P.O.

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 <b>HB8-0.25</b>							Date & Time Sampled: 10/24/18 @ 12:30	
Sample Matrix: <b>Soil</b>								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	10/28/18	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		10/25/18	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	10/26/18	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	10/26/18	AL
[Surrogate]								
o-Terphenyl (OTP)	107		%REC	EPA 8015B		50-150	10/26/18	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		10/26/18	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Barium	<b>82.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cadmium	<b>0.557</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Chromium	<b>42.7</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Cobalt	<b>8.48</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Copper	<b>20.0</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Lead	<b>10.5</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Nickel	<b>8.59</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	10/26/18	TLB
Vanadium	<b>50.4</b>		mg/Kg	EPA 6010B	1.0	0.500	10/26/18	TLB
Zinc	<b>46.0</b>		mg/Kg	EPA 6010B	1.0	5.00	10/26/18	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		10/26/18	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	10/26/18	KZ

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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**Respectfully Submitted:**

*Ken Zheng*

Ken Zheng - Lab Director

### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.  
 B1 = BOD dilution water is over specifications . The reported result may be biased high.  
 D = Surrogate recoveries are not calculated due to sample dilution.  
 E = Estimated value; Value exceeds calibration level of instrument.  
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time  
 I = Matrix Interference.  
 J = Analyte concentration detected between RL and MDL.  
 Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.  
 S = Customer provided specification limit exceeded.

### ABBREVIATIONS

DF = Dilution Factor  
 RL = Reporting Limit, Adjusted by DF  
 MDL = Method Detection Limit, Adjusted by DF  
 Qual = Qualifier  
 Tech = Technician

*As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.*

*For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.*



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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING  
 PACIFIC PALISADES, CA 90272

1810-00217

Date Reported 10/30/2018  
 Date Received 10/24/2018  
 Date Sampled 10/24/2018  
 Invoice No. 83862  
 Customer # G073  
 Customer P.O.

Project: WELDING & JUNK YARD / ESCONDIDO, CA

Method #		EPA 6010B						
QC Reference #		77131		Date Analyzed: 10/26/2018		Technician: TLB		
Samples		001 002 003 004 005 006 007 008						
Results						Control Ranges		
		LCS %REC	LCS %DUP	LCS %RPD	SPIKE %RPD	LCS %REC	LCS %RPD	SPIKE %RPD
Antimony		111	111	0.5	2.5	75 - 125	0 - 20	0 - 20
Arsenic		108	109	0.9	2.1	75 - 125	0 - 20	0 - 20
Barium		98	97	1.4	0.2	75 - 125	0 - 20	0 - 20
Beryllium		98	96	2.0	0.8	75 - 125	0 - 20	0 - 20
Cadmium		92	93	1.3	1.5	75 - 125	0 - 20	0 - 20
Chromium		106	104	2.3	1.0	75 - 125	0 - 20	0 - 20
Cobalt		101	102	0.5	0.8	75 - 125	0 - 20	0 - 20
Copper		102	100	1.6	1.0	75 - 125	0 - 20	0 - 20
Lead		105	104	0.8	2.6	75 - 125	0 - 20	0 - 20
Molybdenum		107	109	1.6	0.8	75 - 125	0 - 20	0 - 20
Nickel		105	105	0.1	1.6	75 - 125	0 - 20	0 - 20
Selenium		109	113	3.6	1.6	75 - 125	0 - 20	0 - 20
Silver		119	116	2.7	1.2	75 - 125	0 - 20	0 - 20
Thallium		104	99	4.9	6.1	75 - 125	0 - 20	0 - 20
Vanadium		104	102	1.5	0.9	75 - 125	0 - 20	0 - 20
Zinc		105	105	0.4	1.8	75 - 125	0 - 20	0 - 20

Method #		EPA 7471A						
QC Reference #		77133		Date Analyzed: 10/26/2018		Technician: KZ		
Samples		001 002 003 004 005 006 007 008						
Results						Control Ranges		
		LCS %REC	LCS %DUP	LCS %RPD	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	
Mercury		90	88	2	82	90	8	
						75 - 125	0 - 25	0 - 25

Method #		EPA 8015B					
QC Reference #		77122		Date Analyzed: 10/26/2018		Technician: AL	
Samples		001 002 003 004 005 006 007 008					
Results						Control Ranges	
		LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	LCS %REC	SPIKE %RPD
C13-C22		97	97	100	3	70 - 130	0 - 25

Method #		EPA 8015M					
QC Reference #		77170		Date Analyzed: 10/28/2018		Technician: AL	
Samples		001 002 003 004 005 006 007 008					
Results						Control Ranges	
		LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	LCS %REC	SPIKE %RPD
Gasoline (C4-C12)		103	88	110	22	70 - 130	0 - 25



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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

1810-00217

Date Reported 10/30/2018

Date Received 10/24/2018

Date Sampled 10/24/2018

**Project: WELDING & JUNK YARD / ESCONDIDO, CA**

**No method blank results were above reporting limit**

*Respectfully Submitted:*

*Ken Zheng*

Ken Zheng - President

*For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.*



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# CHAIN OF CUSTODY

A &amp; R Work Order #:

1810-217

Page 1 of 1

Client Name <b>HILLMAN CONSULTING</b>				<input checked="" type="checkbox"/> Chilled		Analyses Requested										Turn Around Time Requested					
E-mail <b>DAN@GSAENGINEERING.NET</b>				<input checked="" type="checkbox"/> Intact												□ Seal		□ Rush 8 12 24 48 Hours		<input checked="" type="checkbox"/> Normal	
Address <b>1745 ORANGEWOOD AVE #110 ORANGE</b>				Report Attention <b>DAN L</b>		Phone # <b>714 206 3916</b>		Sampled By <b>D.L</b>		EPA8260B (VOCs & Oxygenates) EPA8260B(BTEX & Oxygenates) LUFT / 8015 (Gasoline) LUFT / 8015 (Diesel) EPA8081A (Organochlorine Pesticides) EPA 8082 (PCBs) <input checked="" type="checkbox"/> EPA 8015M (Carbon Chain C4-C40) EPA 6010B/7000 (CAM 17 Metals) Micro: Plate Cnt., Coliform, E-Coli										Remarks	
Project No./ Name <b>WELOVET + JUNKYARD</b>		Project Site <b>22245 S. ESCONDIDO BLVD ESCONDIDO</b>																			
Lab # (Lab use)	Client Sample ID	Sample Collection Date Time		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks					
1	HB1-0.5	10-24-18	9:30	SOIL	ICE	1							X	X		X Run					
	HB1-2.5		9:40			1										Per on					
2	HB2-0.5		10:00			1							X	X		higher					
	HB2-2.5		10:15			1										IP Ho					
3	HB3-0.5		10:20			1							X	X		* Sample ID collected per Dan 10/25/18					
	HB3-2.5		10:30			1															
4	HB4-0.25		10:50			1							X	X							
	HB4-2.5		11:00			1															
5	HB5-0.25 0.5		11:10			1							X	X							
	HB5-2.5		11:20			1															
6	HB6-0.5		9:00			1							X	X							
	HB6-2.5		9:15			1															
7	HB7-0.25		11:45			1							X	X							
	HB7-2.5		12:00			1															
8	HB8-0.25		12:30			1							X	X							
Relinquished by <b>HB8-2.5</b>		Company	Date	Time	Received By	Company	Date	Time	Note: Samples are discarded 30 days after results are reported unless other arrangements are made.												
Relinquished by <b>[Signature]</b>		Company <b>Hillman</b>	Date <b>10/24/18</b>	Time <b>17:15</b>	Received By <b>[Signature]</b>	Company <b>ARL</b>	Date <b>10/24/18</b>	Time <b>17:15</b>													

Matrix Code: DW=Drinking Water SL=Sludge Preservative Code IC=Ice SH=NaOH T=Tedlar Air Bag B= Brass Tube E= EnCore  
 GW=Ground Water SS=Soil/Sediment HC=HCl ST=Na2S2O3 T=Tedlar Air Bag P=Plastic Bottle V=VOA Vial  
 WW=Waste Water AR=Air HN=HNO3 HS=H2SO4 G=Glass Container ST= Steel Tube  
 SD=Solid Waste PP=Pure Product



# Sample Acceptance Checklist

CLIENT: Hillman Consulting

WORK ORDER NUMBER: 1810-217

**Temperature:** (Criteria: 0.0°C-6.0°C)  
 Sample Temp. (w/CF) °C(w/CF) 4.6°C

Sample(s) outside temperature criteria: PM contacted by : \_\_\_\_\_

Sample(s) outside temperature criteria, but received on ice/chilled on same day of sampling.

Sample(s) received at ambient temperature; placed on ice for transport by courier.

Ambient Temperature  Air  Filter

**CUSTODY SEAL:**

Cooler  Present and Intact  Present and Not Intact  Not Present

Sample(s)  Present and Intact  Present and Not Intact  Not Present

Sample Condition:	Yes	No	N/A
Was a COC received	<u>✓</u>		
Were sample IDs present?	<u>✓</u>		
Were sampling dates & times present?	<u>✓</u>		
Was a relinquished signature present?	<u>✓</u>		
Were the tests required clearly indicated?	<u>✓</u>		
Were all samples sealed in plastic bags?			<u>✓</u>
Did all bottle labels agree with COC? (ID, dates and times)	<u>✓</u>		
Were correct containers used for the tests required?	<u>✓</u>		
Was a sufficient amount of samples sent for tests indicated?	<u>✓</u>		
Was there headspace in VOA vials?			<u>✓</u>
Were the containers labeled with correct preservatives?	<u>✓</u>		

**Explanations/Comments:**

\_\_\_\_\_

**Notification:**

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: \_\_\_\_\_ Data/Time: \_\_\_\_\_

Email: Send to: \_\_\_\_\_ Data/Time: \_\_\_\_\_

Project Manager's response:

\_\_\_\_\_

Completed By:  Date: 10-24-18



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## CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

*Ken Zheng*

Ken Zheng, President  
11/05/2018 12:47:51

Laboratory Job No. (Certificate of Analysis No.)

1811-00007

Project Name / No.

Add'l - WELDING & JUNK YARD

Dates Sampled (from/to)

10/24/18 To 10/24/18

Dates Received (from/to)

10/24/18 To 10/24/18

Dates Reported (from/to)

11/05/18 To 11/5/2018

Chains of Custody Received

Yes

Comments:

### Subcontracting

Inorganic Analyses

No analyses sub-contracted

### Sample Condition(s)

All samples intact

### Positive Results (Organic Compounds)

None



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LA City#	10261
ELAP#s	2789
	2790
	2122

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FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

## CERTIFICATE OF ANALYSIS

1811-00007

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
STE. 110  
ORANGE, CA 92868

Date Reported 11/05/18  
Date Received 10/24/18  
Invoice No. 83902  
Cust # G073  
Permit Number  
Customer P.O.

Project: Addt'l - WELDING & JUNK YARD

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HB3-2.5</b>							Date & Time Sampled: 10/24/18 @ 10:30	
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/02/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/02/18	TLB
Lead	<b>2.28</b>		mg/Kg	EPA 6010B	1.0	0.500	11/02/18	TLB
Sample: 002 <b>HB7-2.5</b>							Date & Time Sampled: 10/24/18 @ 12:00	
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/02/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/02/18	TLB
Lead	<b>3.61</b>		mg/Kg	EPA 6010B	1.0	0.500	11/02/18	TLB

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - Lab Director

### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.  
B1 = BOD dilution water is over specifications . The reported result may be biased high.  
D = Surrogate recoveries are not calculated due to sample dilution.  
E = Estimated value; Value exceeds calibration level of instrument.  
H = Analyte was prepared and/or analyzed outside of the analytical method holding time  
I = Matrix Interference.  
J = Analyte concentration detected between RL and MDL.  
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.  
S = Customer provided specification limit exceeded.

### ABBREVIATIONS

DF = Dilution Factor  
RL = Reporting Limit, Adjusted by DF  
MDL = Method Detection Limit, Adjusted by DF  
Qual = Qualifier  
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING  
 ORANGE, CA 92868

1811-00007

Date Reported 11/05/2018  
 Date Received 10/24/2018  
 Date Sampled 10/24/2018  
 Invoice No. 83902  
 Customer # G073  
 Customer P.O.

Project: Addt'l - WELDING & JUNK YARD

Method # EPA 6010B

QC Reference # 77244 Date Analyzed: 11/2/2018 Technician: TLB

Samples 001 002

### Results

	LCS %REC	LCS %DUP	LCS %RPD
Cadmium	99	99	0.4
Lead	98	98	0.0

### Control Ranges

LCS %REC	LCS %RPD
75 - 125	0 - 20
75 - 125	0 - 20

No method blank results were above reporting limit

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - President

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 E-mail: office@arlaboratories.com

# CHAIN OF CUSTODY

A & R Work Order #:

1811-7

Page 1 of 1

# RUSH

Client Name <b>HILLMAN CONSULTING</b>				<input checked="" type="checkbox"/> Chilled		<b>Analyses Requested</b> EPA8260B (VOCs & Oxygenates) _____ EPA8260B(BTEX & Oxygenates) _____ LUFT / 8015 (Gasoline) _____ LUFT / 8015 (Diesel) _____ EPA8081A (Organochlorine Pesticides) _____ EPA 8082 (PCBs) <input checked="" type="checkbox"/> _____ EPA 8015M (Carbon Chain C4-C40) _____ EPA 6010B/7000 (CAM 17 Metals) _____ Micro: Plate Cnt., Coliform, E-Coli _____ Pb: Cd _____										Turn Around Time Requested <b>72 HR</b>		
E-mail <b>DAN@GSAENGINEERING.NET</b>				<input checked="" type="checkbox"/> Intact												8 12 24 48 Hours		
Address <b>1745 ORANGEWOOD AVE #110 ORANGE</b>				<input type="checkbox"/> Seal												<input checked="" type="checkbox"/> Normal		
Report Attention <b>DAN L</b>		Phone # <b>714 206 3916</b>		Sampled By <b>D.L</b>														
Project No./ Name <b>WELDING &amp; JUNK YARD</b>		Project Site <b>22245 S. ESCONDIDO BLVD ESCONDIDO</b>																
Lab # (Lab use)	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Pb: Cd	Remarks	
		Date	Time															
	HB1-0.5	10-24-18	9:30	SOIL	EVE	1							X	X				ARUN
	HB1-2.5		9:40			1												Pb: on
	HB2-0.5		10:00			1							X	X				higher
	HB2-2.5		10:15			1												PTHO
	HB3-0.5		10:20			1							X	X				
1	HB3-2.5		10:30			1												
	HB4-0.25		10:50			1							X	X				
	HB4-2.5		11:00			1												
	HB5-0.25		11:10			1							X	X				
	HB5-2.5		11:20			1												
	HB6-0.5		9:00			1							X	X				
	HB6-2.5		9:15			1												
	HB7-0.25		11:45			1							X	X				
2	HB7-2.5		12:00			1												
	HB8-0.25		12:30			1							X	X				
Relinquished by <b>HB8-2.5</b>		Date <b>12-45</b>		Time <b>17:15</b>		Received By <b>[Signature]</b>		Company <b>ARL</b>		Date <b>10/24/18</b>		Time <b>17:15</b>		Note: Samples are discarded 30 days after results are reported unless other arrangements are made.				
Relinquished by <b>[Signature]</b>		Date <b>10/24/18</b>		Time <b>17:15</b>		Received By <b>[Signature]</b>		Company <b>ARL</b>		Date <b>10/24/18</b>		Time <b>17:15</b>						

\* Sample is consistent per Dan Hillman  
 \*\* Push NO# 1810-217 (addition)  
 - Res Orange on 72 hr TAT  
 10/24/18

Matrix Code: DW=Drinking Water SL=Sludge Preservative Code IC=Ice SH=NaOH \* Sample Container Types: T=Tedlar Air Bag B= Brass Tube E= EnCore  
 GW=Ground Water SS=Soil/Sediment HC=HCl ST=Na2S2O3 T=Glass Container P=Plastic Bottle  
 WW=Waste Water AR=Air HN=HNO3 HS=H2SO4 ST= Steel Tube V=VOA Vial



# Sample Acceptance Checklist

CLIENT: Hillman Consulting

WORK ORDER NUMBER: 1811-7

Temperature: (Criteria: 0.0°C-6.0°C)

Sample Temp. (w/CF) °C(w/CF) 4.3°

- Sample(s) outside temperature criteria: PM contacted by :
  - Sample(s) outside temperature criteria, but received on ice/chilled on same day of sampling.
  - Sample(s) received at ambient temperature; placed on ice for transport by courier.
- Ambient Temperature  Air  Filter

### CUSTODY SEAL:

Cooler  Present and Intact  Present and Not Intact  Not Present  
 Sample(s)  Present and Intact  Present and Not Intact  Not Present

### Sample Condition:

	Yes	No	N/A
Was a COC received	<input checked="" type="checkbox"/>		
Were sample IDs present?	<input checked="" type="checkbox"/>		
Were sampling dates & times present?	<input checked="" type="checkbox"/>		
Was a relinquished signature present?	<input checked="" type="checkbox"/>		
Were the tests required clearly indicated?	<input checked="" type="checkbox"/>		
Were all samples sealed in plastic bags?			<input checked="" type="checkbox"/>
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were correct containers used for the tests required?	<input checked="" type="checkbox"/>		
Was a sufficient amount of samples sent for tests indicated?	<input checked="" type="checkbox"/>		
Was there headspace in VOA vials?			<input checked="" type="checkbox"/>
Were the containers labeled with correct preservatives?	<input checked="" type="checkbox"/>		

### Explanations/Comments:

### Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: \_\_\_\_\_ Data/Time: \_\_\_\_\_

Email: Send to: \_\_\_\_\_ Data/Time: \_\_\_\_\_

Project Manager's response:

Completed By:

Date: 10/24/18



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## CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	<i>Ken Zheng</i> Ken Zheng, President 10/26/2018 11:16:17
Laboratory Job No. (Certificate of Analysis No.)	1810-00211
Project Name / No.	FORMER WELDING & JUNK YARD / ESCONDIDO, CA
Dates Sampled (from/to)	10/24/18 To 10/24/18
Dates Received (from/to)	10/24/18 To 10/24/18
Dates Reported (from/to)	10/26/18 To 10/26/2018
Chains of Custody Received	Yes

Comments:

**Subcontracting**  
 Organic Analyses  
 No analyses sub-contracted

**Sample Condition(s)**  
 All samples intact

Positive Results (Organic Compounds)											
Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
HSG-1-3	Tetrachloroethene	0.81		µg/L	0.10	HSG-1-3	Toluene	0.14		µg/L	0.10
HSG-2-3	Tetrachloroethene	0.80		µg/L	0.10	HSG-2-3	Toluene	0.10		µg/L	0.10
HSG-3-4	Tetrachloroethene	0.84		µg/L	0.10	HSG-3-4	Toluene	0.13		µg/L	0.10
HSG-4-4	Toluene	0.11		µg/L	0.10						



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## CERTIFICATE OF ANALYSIS

1810-00211

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/26/18  
Date Received 10/24/18  
Invoice No. 83830  
Cust # G073  
Permit Number  
Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG-1-3</b>							Date & Time Sampled: 10/24/18 @ 15:10	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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## CERTIFICATE OF ANALYSIS

1810-00211

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/26/18  
Date Received 10/24/18  
Invoice No. 83830  
Cust # G073  
Permit Number  
Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG-1-3</b>							Date & Time Sampled: 10/24/18 @ 15:10	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	10/24/18	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Tetrachloroethene	<b>0.81</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Toluene	<b>0.14</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG-1-3</b>							Date & Time Sampled: 10/24/18 @ 15:10	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	10/24/18	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
[VOC Surrogates]								
Dibromofluoromethane	106		%REC	EPA 8260B		70-130	10/24/18	AL
Toluene-D8	97		%REC	EPA 8260B		70-130	10/24/18	AL
Bromofluorobenzene	96		%REC	EPA 8260B		70-130	10/24/18	AL
Sample: 002 <b>HSG-2-3</b>							Date & Time Sampled: 10/24/18 @ 15:00	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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## CERTIFICATE OF ANALYSIS

1810-00211

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/26/18  
Date Received 10/24/18  
Invoice No. 83830  
Cust # G073  
Permit Number  
Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG-2-3</b>							Date & Time Sampled: 10/24/18 @ 15:00	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG-2-3</b>							Date & Time Sampled: 10/24/18 @ 15:00	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	10/24/18	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Tetrachloroethane	<b>0.80</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Toluene	<b>0.10</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	10/24/18	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
[VOC Surrogates]								
Dibromofluoromethane	104		%REC	EPA 8260B		70-130	10/24/18	AL
Toluene-D8	99		%REC	EPA 8260B		70-130	10/24/18	AL

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ORANGE, CA 92868

Date Reported 10/26/18  
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Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG-2-3</b> Sample Matrix: <b>Soil Vapor</b> .....continued							Date & Time Sampled: 10/24/18 @ 15:00	
Bromofluorobenzene	94		%REC	EPA 8260B		70-130	10/24/18	AL
Sample: 003 <b>HSG-3-4</b> Sample Matrix: <b>Soil Vapor</b> [VOCs by GCMS]							Date & Time Sampled: 10/24/18 @ 14:50	
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 <b>HSG-3-4</b>							Date & Time Sampled: 10/24/18 @ 14:50	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	10/24/18	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Tetrachloroethene	<b>0.84</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Toluene	<b>0.13</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 <b>HSG-3-4</b>							Date & Time Sampled: 10/24/18 @ 14:50	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	10/24/18	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
[VOC Surrogates]								
Dibromofluoromethane	106		%REC	EPA 8260B		70-130	10/24/18	AL
Toluene-D8	97		%REC	EPA 8260B		70-130	10/24/18	AL
Bromofluorobenzene	99		%REC	EPA 8260B		70-130	10/24/18	AL
Sample: 004 <b>HSG-4-4</b>							Date & Time Sampled: 10/24/18 @ 14:40	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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## CERTIFICATE OF ANALYSIS

1810-00211

Date Reported 10/26/18

Date Received 10/24/18

Invoice No. 83830

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG-4-4</b>							Date & Time Sampled: 10/24/18 @ 14:40	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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## CERTIFICATE OF ANALYSIS

### 1810-00211

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ORANGE, CA 92868

Date Reported 10/26/18  
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Invoice No. 83830  
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Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG-4-4</b>							Date & Time Sampled: 10/24/18 @ 14:40	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	10/24/18	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Toluene	<b>0.11</b>		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	10/24/18	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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## CERTIFICATE OF ANALYSIS

### 1810-00211

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DAN LOUKS  
1745 W. ORANGEWOOD AVE.  
ORANGE, CA 92868

Date Reported 10/26/18  
Date Received 10/24/18  
Invoice No. 83830  
Cust # G073  
Permit Number  
Customer P.O.

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG-4-4</b>							Date & Time Sampled: 10/24/18 @ 14:40	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
[VOC Surrogates]								
Dibromofluoromethane	108		%REC	EPA 8260B		70-130	10/24/18	AL
Toluene-D8	97		%REC	EPA 8260B		70-130	10/24/18	AL
Bromofluorobenzene	93		%REC	EPA 8260B		70-130	10/24/18	AL
Sample: 005 <b>HSG-5-4</b>							Date & Time Sampled: 10/24/18 @ 14:30	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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ORANGE, CA 92868

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 <b>HSG-5-4</b>							Date & Time Sampled: 10/24/18 @ 14:30	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	10/24/18	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL

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ORANGE, CA 92868

**Project: FORMER WELDING & JUNK YARD / ESCONDIDO, CA**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 <b>HSG-5-4</b>							Date & Time Sampled: 10/24/18 @ 14:30	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	10/24/18	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	10/24/18	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	10/24/18	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	10/24/18	AL
[VOC Surrogates]								
Dibromofluoromethane	101		%REC	EPA 8260B		70-130	10/24/18	AL
Toluene-D8	94		%REC	EPA 8260B		70-130	10/24/18	AL
Bromofluorobenzene	91		%REC	EPA 8260B		70-130	10/24/18	AL

**Respectfully Submitted:**

*Ken Zheng*

Ken Zheng - Lab Director



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LA City#	10261
ELAP#s	2789
	2790
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### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.  
 B1 = BOD dilution water is over specifications . The reported result may be biased high.  
 D = Surrogate recoveries are not calculated due to sample dilution.  
 E = Estimated value; Value exceeds calibration level of instrument.  
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time  
 I = Matrix Interference.  
 J = Analyte concentration detected between RL and MDL.  
 Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.  
 S = Customer provided specification limit exceeded.

### ABBREVIATIONS

DF = Dilution Factor  
 RL = Reporting Limit, Adjusted by DF  
 MDL = Method Detection Limit, Adjusted by DF  
 Qual = Qualifier  
 Tech = Technician

*As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.*

*For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.*



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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING  
 PACIFIC PALISADES, CA 90272

1810-00211

Date Reported 10/26/2018  
 Date Received 10/24/2018  
 Date Sampled 10/24/2018  
 Invoice No. 83830  
 Customer # G073  
 Customer P.O.

Project: FORMER WELDING & JUNK YARD /  
 ESCONDIDO, CA

Method # EPA 8260B

QC Reference # 77104 Date Analyzed: 10/24/2018 Technician: AL

Samples 001 002 003 004 005

### Results

LCS %REC BLKSRR%R  
 EC

1,1-Dichloroethene	107	
Benzene	95	
Bromofluorobenzene		97
Chlorobenzene	97	
Dibromofluoromethan		99
Toluene	122	
Toluene-D8		97
Trichloroethene	86	

### Control Ranges

LCS %REC BLKSRR%REC

70 - 130	
70 - 130	
	50 - 150
70 - 130	
	50 - 150
70 - 130	
	50 - 150
70 - 130	

No method blank results were above reporting limit

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - President

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**A & R Laboratories**  
 1650 S. Grove Ave., Ste C, Ontario, CA 91761  
 Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344  
 E-mail: office@arlaboratories.com

**CHAIN OF CUSTODY**

A & R Work Order #: **1810-211**

**RUSH**

**Analyses Requested**

Client Name **HILLMAN CONSULTING**  Chilled  Intact  Seal

E-mail **DAN@GSAENGINEERING.NET**

Address **1745 ORANGEWOOD AVE #110 ORANGE**

Report Attention **DAN L** Phone # **714 206-3916** Sampled By **D-L**

Project No./ Name **FORMER WARE + JUNK YARD** Project Site **2224 S. ESCONCIDO Blvd ESCONCIDO**

Turn Around Time Requested  
 Rush 8 12-24 48 Hours  
 Normal

Lab # (Lab use)	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
		Date	Time													
1	HSG-1-3	10-24-18	15:10	VAPOUR	N/A	1-T	X									OIL STAIN
2	HSG-2-3		15:00			1-T	X									HEAVY EQUIPMENT
3	HSG-3-4		14:50			1-T	X									BACK PORCH
4	HSG-4-4		14:40			1-T	X									metal fabricator
5	HSG-5-4		14:30			1-T	X									work bench

Relinquished By Company **Hillman** Date **10/24/18** Time **17:05**

Received By Company **ARL** Date **10/24/18** Time **17:05**

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water SL=Sludge IC=Ice SH=NaOH  
 GW=Ground Water SS=Soil/Sediment HC=HCl ST=Na2S2O3  
 WW=Waste Water AR=Air HN=HNO3 HS=H2SO4  
 SD=Solid Waste PP=Pure Product

\* Sample Container Types:  
 T=Tedlar Air Bag B= Brass Tube E= EnCore  
 G=Glass Container P=Plastic Bottle  
 ST= Steel Tube V=VOA Vial



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## CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President  
11/09/2018 10:03:50

Laboratory Job No. (Certificate of Analysis No.)

1811-00063

Project Name / No.

2222-2224 SOUTH ESCONDIDO , ESCONDIDO

Dates Sampled (from/to)

11/06/18 To 11/06/18

Dates Received (from/to)

11/06/18 To 11/06/18

Dates Reported (from/to)

11/09/18 To 11/9/2018

Chains of Custody Received

Yes

Comments:

### Subcontracting

Inorganic Analyses

No analyses sub-contracted

### Sample Condition(s)

All samples intact

### Positive Results (Organic Compounds)

None



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## CERTIFICATE OF ANALYSIS

1811-00063

HILLMAN CONSULTING  
DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/09/18  
Date Received 11/06/18  
Invoice No. 83956  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HB3A-0.25</b>					Date & Time Sampled:		11/06/18	@ 13:10
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>26.3</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>65.4</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 002 <b>HB3A-1.5</b>					Date & Time Sampled:		11/06/18	@ 13:15
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>18.9</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 003 <b>HB3B-0.25</b>					Date & Time Sampled:		11/06/18	@ 13:25
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>4.26</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>78.1</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 004 <b>HB3B-1.5</b>					Date & Time Sampled:		11/06/18	@ 13:30
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>2.94</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 005 <b>HB3C-0.25</b>					Date & Time Sampled:		11/06/18	@ 13:40
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>9.99</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>83.6</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB

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DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/09/18  
Date Received 11/06/18  
Invoice No. 83956  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO , ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 <b>HB3C-1.5</b>					Date & Time Sampled:		11/06/18	@ 13:45
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>3.18</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 007 <b>HB7A-0.25</b>					Date & Time Sampled:		11/06/18	@ 13:55
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>0.586</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>15.6</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 008 <b>HB7A-1.5</b>					Date & Time Sampled:		11/06/18	@ 14:00
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>1.96</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 009 <b>HB7B-0.25</b>					Date & Time Sampled:		11/06/18	@ 14:10
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>7.38</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>25.4</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 010 <b>HB7B-1.5</b>					Date & Time Sampled:		11/06/18	@ 14:15
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>3.11</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB

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Date Reported 11/09/18  
Date Received 11/06/18  
Invoice No. 83956  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO , ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 <b>HB7C-0.25</b>							Date & Time Sampled: 11/06/18 @ 14:25	
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<b>0.860</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>17.2</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Sample: 012 <b>HB7C-1.5</b>							Date & Time Sampled: 11/06/18 @ 14:30	
Sample Matrix: <b>Soil</b>								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		11/08/18	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB
Lead	<b>2.94</b>		mg/Kg	EPA 6010B	1.0	0.500	11/08/18	TLB

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - Lab Director

### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.  
B1 = BOD dilution water is over specifications . The reported result may be biased high.  
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I = Matrix Interference.  
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S = Customer provided specification limit exceeded.

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## QUALITY CONTROL DATA REPORT

HILLMAN CONSULTING  
 PACIFIC PALISADES, CA 90272

1811-00063

Date Reported 11/09/2018  
 Date Received 11/06/2018  
 Date Sampled 11/06/2018  
 Invoice No. 83956  
 Customer # G073  
 Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO , ESCONDIDO

Method #	EPA 6010B											
QC Reference #	77356			Date Analyzed:	11/8/2018			Technician:	TLB			
Samples	001	002	003	004	005	006	007	008	009	010	011	012
Results	LCS %REC	LCS %DUP	LCS %RPD	SPIKE %RPD	Control Ranges							
					LCS %REC	LCS %RPD	SPIKE %RPD					
Cadmium	104	103	1.0	0.6	75 - 125	0 - 20	0 - 20					
Lead	104	104	0.7	0.1	75 - 125	0 - 20	0 - 20					

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng - President

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**RUSH**

Client Name <b>HILLMAN CONSULTING</b>				Analyses Requested										Turn Around Time Requested				
E-mail				<input checked="" type="checkbox"/> Chilled										<input checked="" type="checkbox"/> Rush 8 12 24 48 Hours <b>72 HR</b> <input type="checkbox"/> Normal				
Address <b>1745 ORANGEWOOD #110 ORANGE CA</b>				<input type="checkbox"/> Intact														
Report Attention <b>DAN L</b>		Phone # <b>714 2063916</b>		Sampled By <b>DL NH</b>		<input type="checkbox"/> Seal												
Project No./ Name		Project Site <b>2222-2224 SOUTH ESCONDIDO ESCONDIDO</b>																
Lab # <small>(Lab use)</small>	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Lead + Cadmium	Remarks	
		Date	Time															
1	HB3A-0.25	11-06-18	13:10	Soil	ICE	GLASS											X	
2	HB3A-1.5	↓	13:15	↓	↓	↓												X
3	HB3B-0.25		13:25															X
4	HB3B-1.5		13:30															X
5	HB3C-0.25		13:40															X
6	HB3C-1.5		13:45															X
7	HB7A-0.25		13:55															X
8	HB7A-1.5		14:00															X
9	HB7B-0.25		14:10															X
10	HB7B-1.5		14:15															X
11	HB7C-0.25		14:25															X
12	HB7C-1.5		14:30															X
Relinquished By <i>[Signature]</i>			Company <b>Hillman</b>															Date <b>11/6/18</b>
Relinquished By		Company		Date		Time		Received By		Company		Date		Time				

Matrix Code:	DW=Drinking Water GW=Ground Water WW=Waste Water SD=Solid Waste	SL=Sludge SS=Soil/Sediment AR=Air PP=Pure Product	Preservative Code	IC=Ice HC=HCl HN=HNO <sub>3</sub>	SH=NaOH ST=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> HS=H <sub>2</sub> SO <sub>4</sub>	* Sample Container Types: T=Tedlar Air Bag G=Glass Container ST= Steel Tube	B= Brass Tube P=Plastic Bottle V=VOA Vial	E= EnCore
--------------	--	--	-------------------	---	--	--	---	-----------



# Sample Acceptance Checklist

CLIENT: Hillman Consulting

WORK ORDER NUMBER: 1811-63

**Temperature:** (Criteria: 0.0°C-6.0°C)  
 Sample Temp. (w/CF) °C(w/CF) 4.2°C

Sample(s) outside temperature criteria: PM contacted by : \_\_\_\_\_  
 Sample(s) outside temperature criteria, but received on ice/chilled on same day of sampling.  
 Sample(s) received at ambient temperature; placed on ice for transport by courier.  
 Ambient Temperature  Air  Filter

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present and Not Intact  Not Present  
 Sample(s)  Present and Intact  Present and Not Intact  Not Present

Sample Condition:	Yes	No	N/A
Was a COC received	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were all samples sealed in plastic bags?			✓
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of samples sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

**Explanations/Comments:**  
 \_\_\_\_\_

**Notification:**  
 For discrepancies, how was the Project Manager notified?      Verbal  
 Verbal:      PM Initials: \_\_\_\_\_      Data/Time: \_\_\_\_\_  
 Email:      Send to: \_\_\_\_\_      Data/Time: \_\_\_\_\_  
 Project Manager's response:  
 \_\_\_\_\_

Completed By: [Signature]

Date: 11-6-18



# A & R Laboratories, Inc.

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## CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President  
11/07/2018 9:26:20

Laboratory Job No. (Certificate of Analysis No.)

1811-00061

Project Name / No.

2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Dates Sampled (from/to)

11/06/18 To 11/06/18

Dates Received (from/to)

11/06/18 To 11/06/18

Dates Reported (from/to)

11/07/18 To 11/7/2018

Chains of Custody Received

Yes

Comments:

### Subcontracting

Organic Analyses

No analyses sub-contracted

### Sample Condition(s)

All samples intact

### Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
HSG6-15	Tetrachloroethene	0.50		µg/L	0.10	HSG7-4	Toluene	0.13		µg/L	0.10
HSG8-4	Toluene	0.24		µg/L	0.10	HSG9-4	Toluene	0.23		µg/L	0.10
HSG10-4	Toluene	0.38		µg/L	0.10	HSG1-2.5	Tetrachloroethene	0.15		µg/L	0.10



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## CERTIFICATE OF ANALYSIS

1811-00061

HILLMAN CONSULTING  
DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/07/18  
Date Received 11/06/18  
Invoice No. 83924  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG6-15</b>							Date & Time Sampled: 11/06/18 @ 16:00	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG6-15</b>							Date & Time Sampled: 11/06/18 @ 16:00	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethene	<b>0.50</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Invoice No. 83924  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HSG6-15</b>							Date & Time Sampled: 11/06/18 @ 16:00	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	104		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	101		%REC	EPA 8260B		70-130	11/06/18	JEN
Bromofluorobenzene	97		%REC	EPA 8260B		70-130	11/06/18	JEN
Sample: 002 <b>HSG7-4</b>							Date & Time Sampled: 11/06/18 @ 15:40	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG7-4</b>							Date & Time Sampled: 11/06/18 @ 15:40	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG7-4</b>							Date & Time Sampled: 11/06/18 @ 15:40	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<b>0.13</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	105		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	104		%REC	EPA 8260B		70-130	11/06/18	JEN

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## CERTIFICATE OF ANALYSIS

1811-00061

HILLMAN CONSULTING  
DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/07/18  
Date Received 11/06/18  
Invoice No. 83924  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HSG7-4</b> Sample Matrix: <b>Soil Vapor</b> .....continued					Date & Time Sampled:		11/06/18 @ 15:40	
Bromofluorobenzene	98		%REC	EPA 8260B		70-130	11/06/18	JEN
Sample: 003 <b>HSG8-4</b> Sample Matrix: <b>Soil Vapor</b> [VOCs by GCMS]					Date & Time Sampled:		11/06/18 @ 15:10	
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 <b>HSG8-4</b>							Date & Time Sampled: 11/06/18 @ 15:10	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<b>0.24</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 <b>HSG8-4</b>							Date & Time Sampled: 11/06/18 @ 15:10	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	102		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	102		%REC	EPA 8260B		70-130	11/06/18	JEN
Bromofluorobenzene	95		%REC	EPA 8260B		70-130	11/06/18	JEN
Sample: 004 <b>HSG9-4</b>							Date & Time Sampled: 11/06/18 @ 15:20	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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**Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG9-4</b>							Date & Time Sampled: 11/06/18 @ 15:20	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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## CERTIFICATE OF ANALYSIS

### 1811-00061

HILLMAN CONSULTING  
DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/07/18  
Date Received 11/06/18  
Invoice No. 83924  
Cust # G073  
Permit Number  
Customer P.O.

**Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG9-4</b>							Date & Time Sampled: 11/06/18 @ 15:20	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<b>0.23</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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**1745 ORANGEWOOD**  
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**Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 <b>HSG9-4</b>							Date & Time Sampled: 11/06/18 @ 15:20	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	109		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	100		%REC	EPA 8260B		70-130	11/06/18	JEN
Bromofluorobenzene	97		%REC	EPA 8260B		70-130	11/06/18	JEN
Sample: 005 <b>HSG10-4</b>							Date & Time Sampled: 11/06/18 @ 15:30	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Customer P.O.

HILLMAN CONSULTING

DAN LOUKS

1745 ORANGEWOOD

ORANGE, CA

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 <b>HSG10-4</b>							Date & Time Sampled: 11/06/18 @ 15:30	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 <b>HSG10-4</b>							Date & Time Sampled: 11/06/18 @ 15:30	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<b>0.38</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	103		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	102		%REC	EPA 8260B		70-130	11/06/18	JEN
Bromofluorobenzene	97		%REC	EPA 8260B		70-130	11/06/18	JEN
Sample: 006 <b>HSG1-2.5</b>							Date & Time Sampled: 11/06/18 @ 15:50	
Sample Matrix: <b>Soil Vapor</b>								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN

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DAN LOUKS

1745 ORANGEWOOD

ORANGE, CA

**Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 <b>HSG1-2.5</b>							Date & Time Sampled: 11/06/18 @ 15:50	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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## CERTIFICATE OF ANALYSIS

### 1811-00061

Date Reported 11/07/18

Date Received 11/06/18

Invoice No. 83924

Cust # G073

Permit Number

Customer P.O.

HILLMAN CONSULTING

DAN LOUKS

1745 ORANGEWOOD

ORANGE, CA

**Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO**

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 <b>HSG1-2.5</b>							Date & Time Sampled: 11/06/18 @ 15:50	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	11/06/18	JEN
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Tetrachloroethene	<b>0.15</b>		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN

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## CERTIFICATE OF ANALYSIS

1811-00061

HILLMAN CONSULTING  
DAN LOUKS  
1745 ORANGEWOOD  
ORANGE, CA

Date Reported 11/07/18  
Date Received 11/06/18  
Invoice No. 83924  
Cust # G073  
Permit Number  
Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 <b>HSG1-2.5</b>					Date & Time Sampled:		11/06/18 @ 15:50	
Sample Matrix: <b>Soil Vapor</b>								
.....continued								
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	11/06/18	JEN
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	11/06/18	JEN
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	11/06/18	JEN
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	11/06/18	JEN
[VOC Surrogates]								
Dibromofluoromethane	100		%REC	EPA 8260B		70-130	11/06/18	JEN
Toluene-D8	101		%REC	EPA 8260B		70-130	11/06/18	JEN
Bromofluorobenzene	101		%REC	EPA 8260B		70-130	11/06/18	JEN

Respectfully Submitted:

Ken Zheng - Lab Director

### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.  
B1 = BOD dilution water is over specifications . The reported result may be biased high.  
D = Surrogate recoveries are not calculated due to sample dilution.  
E = Estimated value; Value exceeds calibration level of instrument.  
H = Analyte was prepared and/or analyzed outside of the analytical method holding time  
I = Matrix Interference.  
J = Analyte concentration detected between RL and MDL.  
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.  
S = Customer provided specification limit exceeded.

### ABBREVIATIONS

DF = Dilution Factor  
RL = Reporting Limit, Adjusted by DF  
MDL = Method Detection Limit, Adjusted by DF  
Qual = Qualifier  
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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## QUALITY CONTROL DATA REPORT

HILLMAN CONSULTING  
 PACIFIC PALISADES, CA 90272

1811-00061

Date Reported 11/07/2018  
 Date Received 11/06/2018  
 Date Sampled 11/06/2018  
 Invoice No. 83924  
 Customer # G073  
 Customer P.O.

Project: 2222-2224 SOUTH ESCONDIDO, ESCONDIDO

Method # EPA 8260B

QC Reference # 77333 Date Analyzed: 11/6/2018 Technician: JEN

Samples 001 002 003 004 005 006

### Results

LCS %REC

1,1-Dichloroethene	105
Benzene	95
Chlorobenzene	100
Toluene	95
Trichloroethene	90

### Control Ranges

LCS %REC

70 - 130
70 - 130
70 - 130
70 - 130
70 - 130

No method blank results were above reporting limit

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



# APPENDIX C

## Drilling Logs



















## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HSG7  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 4 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
4			0.0			ML	<p>Sandy, Clayey, SILT; reddish brown, low plasticity, hard, no odor.</p> <p>Install Probe HSG7 at 4 feet. Seal with bentonite and remove after soil gas sampling.</p>

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HSG8  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 4 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
4			0.0			ML	<p>Sandy, Clayey, SILT; reddish brown, low plasticity, hard, no odor.</p> <p>Install Probe HSG8 at 4 feet. Seal with bentonite and remove after soil gas sampling.</p>



## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HSG10  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 4 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
4			0.0			CL	<p>Sandy, Silty CLAY; brown, low plasticity, very fine sand, dense, no odor.</p> <p>Install Probe HSG10 at 4 feet. Seal with bentonite and remove after soil gas sampling.</p>

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB3a  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 1.5 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB3a-0.25		ML	Clayey SILT; brown, low plasticity, hard, no odor.
1.5			0.0	HB3a-1.5		CL	Silty CLAY; reddish brown, low plasticity, no odor.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB3b

**PROJECT** Commercial Property

**OWNER** \_\_\_\_\_

**LOCATION** 2222-2224 S. Escondido Blvd, Escondido, CA

**PROJECT NUMBER** \_\_\_\_\_

**DATE DRILLED** November 6, 2018

**TOTAL DEPTH OF HOLE** 1.5 Feet

**SURFACE ELEVATION** \_\_\_\_\_

**DEPTH TO WATER** \_\_\_\_\_

**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_

**SLOT SIZE** \_\_\_\_\_

**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_

**TYPE** \_\_\_\_\_

**DRILLING COMPANY** Hillmann

**DRILL METHOD** Hand Auger

**DRILLER** Dan/Neil

**LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB3b-0.25		ML	Clayey SILT; brown, low plasticity, hard, no odor.
1.5			0.0	HB3b-1.5		CL	Silty CLAY; reddish brown, low plasticity, no odor.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB3c

**PROJECT** Commercial Property

**OWNER** \_\_\_\_\_

**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA

**PROJECT NUMBER** \_\_\_\_\_

**DATE DRILLED** November 6, 2018

**TOTAL DEPTH OF HOLE** 1.5 Feet

**SURFACE ELEVATION** \_\_\_\_\_

**DEPTH TO WATER** \_\_\_\_\_

**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_

**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_

**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger

**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB3c-0.25		ML	Clayey SILT; brown, low plasticity, hard, no odor.
1.5			0.0	HB3c-1.5		CL	Silty CLAY; reddish brown, low plasticity, no odor.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB7a  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 1.5 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB7a-0.25		ML	Clayey SILT; reddish brown, medium plasticity, no odor.
1.5			0.0	HB7a-1.5		CL	Sandy CLAY; reddish brown, medium plasticity, very fine sand, no odor.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB7b  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 1.5 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB7b-0.25		ML	Clayey SILT; reddish brown, medium plasticity, no odor.
1.5			0.0	HB7b-1.5		CL	Sandy CLAY; reddish brown, medium plasticity, very fine sand, no odor.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB7c  
**PROJECT** Commercial Property **OWNER** \_\_\_\_\_  
**LOCATION** 2222-2224 S. Escondido Blvd., Escondido, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** November 6, 2018 **TOTAL DEPTH OF HOLE** 1.5 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Dan/Neil **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0.25			0.0	HB7c-0.25		ML	Clayey SILT; reddish brown, medium plasticity, no odor.
1.5			0.0	HB7c-1.5		CL	Sandy CLAY; reddish brown, medium plasticity, very fine sand, no odor.

APPENDIX D  
Soil Gas Monitoring Data

# SOIL GAS MONITORING DATA FORM

**PROJECT:** Commercial Property  
**LOCATION:** 2222-2224 South Escondido Blvd., Escondido, California  
**DATE:** October 24, 2018

	VAPOR PROBE INFO							
<b>PROBE ID</b>	<b>HSG1</b>	<b>HSG2</b>	<b>HSG3</b>	<b>HSG4</b>	<b>HSG5</b>			
<b>PROBE DEPTH (ft)</b>	3	3	4	4	4			
	EXTRACTION DATA							
<b>Applied Vacuum (in. WC)</b>	<5	<5	<5	<5	<5			
<b>FLOW (L/min)</b>	0.2	0.2	0.2	0.2	0.2			
<b>Pore Volumes (borehole - sand pack)</b>	3	3	3	3	3			
	MONITORING DATA							
<b>OXYGEN (%)</b>	19.0	18.3	18.7	20.0	19.5			
<b>CARBON DIOXIDE (%)</b>	0.9	1.45	1.32	1.40	0.34			
<b>VOC by PID (ppm)</b>	0.0	0.0	0.0	0.0	0.0			

	VAPOR PROBE INFO							
<b>PROBE ID</b>								
<b>PROBE DEPTH (ft)</b>								
	EXTRACTION DATA							
<b>Applied Vacuum (in. WC)</b>								
<b>FLOW (L/min)</b>								
<b>Pore Volumes (borehole - sand pack)</b>								
	MONITORING DATA							
<b>OXYGEN (%)</b>								
<b>CARBON DIOXIDE (%)</b>								
<b>VOC by PID (ppm)</b>								

**REMARKS:** \_\_\_\_\_  
**SAMPLED BY:** DL

# SOIL GAS MONITORING DATA FORM

**PROJECT:** Commercial Property  
**LOCATION:** 2222-2224 South Escondido Blvd., Escondido, California  
**DATE:** November 6, 2018

	VAPOR PROBE INFO								
<b>PROBE ID</b>	<b>HSG8</b>	<b>HSG9</b>	<b>HSG10</b>	<b>HSG7</b>	<b>HSG6</b>	<b>HSG1-R</b>			
<b>PROBE DEPTH (ft)</b>	4	4	4	4	15	2.5			
	EXTRACTION DATA								
<b>Applied Vacuum (in. WC)</b>	<5	<5	<5	<5	<5	<5			
<b>FLOW (L/min)</b>	0.2	0.2	0.2	0.2	0.2	0.2			
<b>Pore Volumes (borehole - sand pack)</b>	3	3	3	3	3	3			
	MONITORING DATA								
<b>OXYGEN (%)</b>	20.2	20.7	19.8	20.1	17.2	19.3			
<b>CARBON DIOXIDE (%)</b>	0.2	0.2	0.4	0.22	1.05	0.26			
<b>VOC by PID (ppm)</b>	0.0	0.0	0.0	0.0	0.0	0.0			

	VAPOR PROBE INFO								
<b>PROBE ID</b>									
<b>PROBE DEPTH (ft)</b>									
	EXTRACTION DATA								
<b>Applied Vacuum (in. WC)</b>									
<b>FLOW (L/min)</b>									
<b>Pore Volumes (borehole - sand pack)</b>									
	MONITORING DATA								
<b>OXYGEN (%)</b>									
<b>CARBON DIOXIDE (%)</b>									
<b>VOC by PID (ppm)</b>									

**REMARKS:** \_\_\_\_\_  
**SAMPLED BY:** DL