



LIMITED PHASE II SUBSURFACE INVESTIGATION REPORT



2300, 2310 AND 2320 RED HILL AVENUE, SANTA ANA, CALIFORNIA

Prepared For:

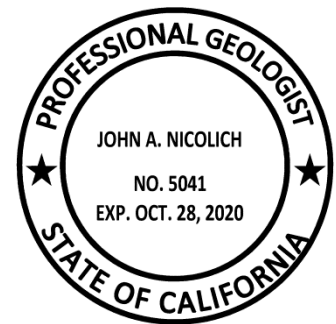
RHW Holdings
240 Newport Center Drive
Newport Beach, California 92660

Hillmann Project Number C3- 7489

May 28, 2019

Written By:
Hillmann Consulting, LLC

John Nicolich
Professional Geologist 5041



Your Property. Our Priority.

1745 W. Orangewood Avenue, Suite 110, Orange, CA 92868
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May 28, 2019

Jeremy Ogulnick
RHW Holdings
240 Newport Center Drive
Newport Beach, California 92660

RE: Limited Phase II Subsurface Investigation Report
2300-2320 Red Hill Avenue
Santa Ana, California
Hillmann Project Number: C3- 7489

Dear Mr. Ogulnick:

Hillmann Consulting, LLC, is pleased to provide this Limited Phase II 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

Your Property. Our Priority.

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1.0 INTRODUCTION / BACKGROUND

Hillmann Consulting, LLC (Hillmann) conducted a Limited Phase II Subsurface Investigation at 2300, 2310 and 2320 Red Hill Avenue, Santa Ana, California (**Figure 1**). The subject Property is located on the west corner of East Warner Avenue and Red Hill Avenue in a primarily commercial-light industrial area of Santa Ana. The Property occupies 14.53 acres and is improved with three industrial buildings addressed as 2300, 2310, and 2320 Red Hill Avenue. All three structures were formerly occupied by Ricoh Electronics Inc, an imaging and electronics company. The property was vacated by Ricoh in 2018 and the buildings re-purposed for storage, electronics recycling, and as temporary housing for the homeless by other operators. The property is being considered for redevelopment for residential use.

In June 2018, Stantec Consulting Services, Inc. (Stantec) completed a Phase I Environmental Site Assessment for the property. The findings indicated the former Ricoh operation included a thermal processing area in 2320 Red Hill Avenue, a machine shop in 2310 Red Hill Avenue, and toner manufacturing in 2300 Red Hill Avenue. Large concrete pads were present in both the thermal processing and machine shop areas. In addition, the southwestern portion of the site formerly maintained an underground storage tank (UST) system used to store petroleum hydrocarbons. The original system included a 30,000 gallon and two 50,000 gallon USTs that were removed in 1998. These were replaced by a 40,000 gallon UST in the same location that was later removed in 2006.

In 1986, leakage was discovered from underground piping associated with the UST system then operating at the site. The USTs were located in a cluster behind the 2300 Red Hill Avenue location and were used to store ISOPAR G and ISOPAR H; isoparaffinic aliphatic hydrocarbons used in the manufacture of copy machine toner. These compounds are mixed petroleum hydrocarbons with a carbon chain range of C10-C11 (G) and C11-C12 (H), roughly in the range of gasoline type hydrocarbons (C4-C12). After the initial subsurface investigation around the USTs six groundwater monitoring wells and 20 groundwater sampling points were installed to characterize and define groundwater contamination.

Groundwater was present at about 10 feet below grade at this time and flowed to the south, towards an adjoining property known as JayDee Enterprises. Free floating hydrocarbons were detected in groundwater and a Cleanup and Abatement Order was issued. Remediation efforts included groundwater extraction and treatment and free product recovery. During the UST replacement program in 1998, the entire UST area was excavated to 16 feet below grade, 100,000 gallons of groundwater was removed from the pit and Oxygen Reducing Compound (ORC) was placed in the backfilled pit to provide continued treatment of groundwater. This action appears to have mitigated the free product conditions, but the dissolved levels of petroleum hydrocarbons remained significant, though they decreased substantially over time with additional remedial efforts.

In 2006, the 40,000 gallon UST was permanently removed. Soil sampling after removal indicated hydrocarbon concentrations of 360 mg/Kg for diesel range hydrocarbons (C13-C28), and 860 mg/Kg for oil range hydrocarbons (C29-C40). These concentrations are below the typical action level for hydrocarbons in soil in commercial applications. Groundwater contained 530 ug/L diesel range hydrocarbons at that time. Based on these results, Ricoh

sought closure of the UST case, however, additional investigation of the adjoining JayDee property to the south was required.

In 2008, six borings were installed on the JayDee site. Results from soil sampling indicated a maximum of 490 mg/Kg total petroleum hydrocarbons (TPH). Groundwater was sampled from deep in the borings at 35-40 feet below grade (static groundwater was at about 13 feet), and no TPH or VOC was detected. This established the vertical extent of groundwater contamination. Groundwater sampling in monitoring wells installed off-site on the JayDee property had a maximum of 660 ug/L diesel range hydrocarbons, and 190 ug/L gasoline range hydrocarbons.

Based on these data, the SARWQCB approved of closure based on the removal of the source (the USTs and a significant volume of impacted soil), the relatively low residual levels remaining in soil and groundwater that would not pose a significant threat to beneficial use, and the anticipated future reduction in contaminant mass due to biodegradation and natural attenuation.

As indicated in the closure documentation, SARWQCB has not established petroleum hydrocarbon cleanup levels for soil for protection of human health and no statewide petroleum hydrocarbon cleanup levels have been established. However, the residual concentrations of petroleum hydrocarbons detected in the soil borings did not exceed the environmental screening levels (ESLs) established by the San Francisco RWQCB for direct exposure for commercial workers (450 mg/Kg for soils <3 m deep and 4,200 mg/Kg for soils >3 m deep for gasoline and diesel and 3,700 mg/Kg for residual fuels with a carbon chain >C24). In addition, SARWQCB cited research indicating isoparaffinic hydrocarbon compounds "have a very low order of acute toxicity, being practically non-toxic by oral, dermal and inhalation routes." Given that free product was no longer detected at the site, there was a reasoned low likelihood that commercial workers would be exposed to liquid ISOPAR. Based on these criteria, SARWQCB did not require a quantitative risk assessment of the residual petroleum hydrocarbons or vapor intrusion studies to determine if the residual petroleum hydrocarbons pose any risk to the nearby building occupants. The UST case was closed on August 13, 2010.

In July 2018, Stantec conducted a subsurface investigation that included soil and soil gas sampling across the property. Fifteen soil borings and temporary soil gas probes (B1-B15) were installed in targeted areas across the large property to investigate possible contamination by VOC, but most were installed outside the structures. Additional hand auger borings were used to gauge possible contamination by organo-chlorine pesticides, lead, and arsenic. Results of this work identified three areas of concern. The first was the former ISOPAR UST area where borings B13-B15 were installed. Soil samples obtained at 15 feet below grade, beneath the former UST excavation backfill, had TPH concentrations greater than regulatory action levels. Stantec estimated an area of 4,500 square feet of impacted soil located at 14-19 feet would need to be addressed by excavation and removal (850 cubic yards) if the land use were to change. In addition, Boring B12 installed near a suspected former diesel UST had TPH concentrations greater than typical action levels at 15 feet below grade. Stantec estimated approximately 50 cubic yards of material would need to be removed from this area.

The final area of concern regarded the possible risk of vapor intrusion issues from the thermal processing area at 2320 Red Hill Avenue. Numerous drains, trenches, sumps, etc. were

observed in this area and soil gas samples from B3-B8 indicated no VOC greater than current residential screening levels. However, additional work was recommended to evaluate additional potential sources and to evaluate the distribution of VOC that was detected in relatively low concentrations.

In May 2019, Hillmann completed a Limited Phase II Subsurface Investigation at the property that included soil and soil gas sampling to further investigate possible subsurface contamination at the site. The investigation focused on areas inside the three buildings to provide greater definition and fuller coverage of the large facility. The current investigation is an independent assessment of the site that was 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 investigation featured soil gas sampling which was considered very important in determining future possible vapor intrusion impacts. Results from soil gas sampling indicated no detectable levels of VOC in soil gas, and no actionable levels of petroleum hydrocarbons or VOC in soil under residential use standards. Based on these results, Hillmann recommends no further sampling at the site, and following the protocol outlined in Stantec's investigation. This will include re-opening of the UST cases to consider closure for residential use after removal of marginally impacted soil in targeted areas.

2.0 GEOLOGY/HYDROGEOLOGY

Based on the drilling logs, shallow soils beneath the site consist primarily of silty clay and silt with occasional layers of silty sand, and sand in the upper 10 feet of section, the maximum depth of exploration. Groundwater was not encountered during drilling to 10 feet below grade. Previous investigations at the site indicate groundwater was as shallow as 10 feet below grade. Currently, groundwater at nearby sites in the vicinity of the Property lies at about 12-15 feet below grade. Drilling by Stantec in July 2018 to a maximum depth of 15.5 feet below grade did not encounter groundwater. Descriptions of the sediments encountered during drilling are presented in the drilling logs (**Appendix C**).

3.0 SITE INVESTIGATION

On May 8-10, 2019, Hillmann installed 14 borings (B1-B14) in targeted locations of the site focused on indoor areas that were accessible. This investigation was meant to supplement the work completed previously by Stantec. The borings were installed to total depths ranging from 2 to 10 feet below grade using hand auger drilling tools or roto-hammer drilling equipment. 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 select depths and were preserved for laboratory analysis in laboratory glass jars sealed with Teflon tape and threaded caps and using the Encore sampling method (EPA Method 5035) for VOC analyses. The shallow soil samples were 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 deeper samples for VOC by EPA Method 8260B. A&R Laboratories of Ontario, California analyzed the samples.

Each boring was completed as a temporary soil gas sampling probe (SG1-SG14) with sampling tips set near maximum depth. Ten of the 14 probes were completed with two nested probes, one near maximum depth and the other set at 3-5 feet below grade. Only shallow probes SG3, SG12, SG13, and SG14 were completed with a single shallow soil gas probe set at depths of 2-4 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 soil gas sampling probes were allowed to equilibrate for at least 48 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 May 13-14, 2019. 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, and samples from the soil gas probes located near the former UST area (SG8-5, SG8-10, SG9-5, and SG9-10) were also tested for gasoline hydrocarbons by EPA Method 8015 (LUFT) by A&R Laboratories of Ontario, California.

3.1 Laboratory Results

Results from soil sampling indicated none of the samples had detectable levels of VOC. Just one soil sample had detectable levels of petroleum hydrocarbons with 0.38 mg/Kg gasoline

hydrocarbons in sample B9-5. The only detected contaminant is well below the typical action level for gasoline range hydrocarbons in soil of 100 mg/Kg and is considered insignificant. These results are summarized in **Table 1**. The laboratory reports from soil sampling are included in **Appendix B**.

Results from soil gas sampling indicated none of the samples had detectable levels of VOC. In addition, each of the four samples selected for analysis of gasoline hydrocarbons had detectable levels with concentrations ranging from 224 to 2,340 ug/L. There is no current state-wide screening level for gasoline range hydrocarbons in soil gas. These results are summarized in **Table 2**. The laboratory report from soil gas sampling is included in **Appendix B**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The subject site is a commercial-industrial property that was formerly occupied by Ricoh Electronics and is being considered for future residential development. The site was reportedly used for thermal processing and manufacture of toner and was equipped with a machine shop and USTs used for storage of ISOPAR, an aliphatic based gasoline range petroleum hydrocarbon. The UST case was closed in 2010 by SARWQCB after significant remedial efforts including treatment of shallow groundwater at 10 feet below grade, and removal of impacted soil. The case was closed partly due to the low toxicity of ISOPAR compounds. In addition, a previous subsurface investigation conducted by Stantec included investigation across much of the property (mostly in outdoor locations) and identified three areas of possible concern. Two of these areas of concern related to former UST issues and recommendations were made to remove marginally impacted soil as a condition of redevelopment. The third area of concern related to further exploration of the subsurface to determine if additional sources of VOC contamination were present in unexplored areas and to provide further definition of the distribution of the low VOC concentrations detected in soil gas.

In May 2019, Hillmann installed 14 soil borings in targeted indoor areas of the site. Results from subsurface soil sampling indicated no significant concentrations of petroleum hydrocarbons in soil and no detectable levels of VOC. The results from soil gas sampling indicated no detectable levels of VOC. However, marginal concentrations of TPHg were detected in four samples located in proximity to the former ISOPAR UST area. In evaluating the significance of these findings, a few important points need to be considered. First, there is no current state-wide screening level for gasoline range hydrocarbons in soil gas. In addition, the lack of environmentally sensitive VOC in soil gas suggests no significant environmental or human health threat. Finally, the case was previously closed with respect to groundwater and a change in use should not change this evaluation as the primary difference in evaluation of commercial and residential health risk is from exposure differences, not preservation or restoration of the resource.

Based on these results, Hillmann recommends no further sampling at the site, and following of the general protocol outlined by Stantec including excavation and removal of limited soil contamination around the former USTs and re-opening of the UST case to consider closure for residential purposes.

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.

DRAFT

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

Sample ID	VOC	TPHg C4-C12	TPHd C13-C22	TPH-Oil C23-C40
Sampled May 8-10, 2019				
B1-5	--	ND<0.20	ND<10	ND<20
B1-10	ND	--	--	--
B2-3	--	ND<0.20	ND<10	ND<20
B2-10	ND	--	--	--
B4-5	--	ND<0.20	ND<10	ND<20
B4-10	ND	--	--	--
B5-5	--	ND<0.20	ND<10	ND<20
B5-10	ND	--	--	--
B6-5	--	ND<0.20	ND<10	ND<20
B6-10	ND	--	--	--
B7-5	--	ND<0.20	ND<10	ND<20
B7-10	ND	--	--	--
B8-5	--	ND<0.20	ND<10	ND<20
B8-10	ND	--	--	--
B9-5	--	0.38	ND<10	ND<20
B9-10	ND	--	--	--
B10-5	--	ND<0.20	ND<10	ND<20
B10-10	ND	--	--	--
B11-5	--	ND<0.20	ND<10	ND<20
B11-10	ND	--	--	--
B12-3	ND	ND<0.20	ND<10	ND<20
B13-3	ND	ND<0.20	ND<10	ND<20
B14-3	ND	ND<0.20	ND<10	ND<20
SFRWQCB Tier 1 ESL	--	100	260	1,600

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). 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	TPHg
Sampled May 13-14, 2019							
SG1-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG1-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG2-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG2-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG3-2	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG4-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG4-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG5-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG5-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG6-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG6-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG7-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG7-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG8-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	224
SG8-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	468
SG9-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	1,860
SG9-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	2,340
SG10-4	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG10-9	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
S11-3	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG11-8	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG12-4	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG13-4	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	---
SG14-4	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND
Future Residential RSL	0.097*	310*	1.1	100	0.48	0.46*	--
Commercial RSL	0.42*	1,300*	4.9	440	3.0	2.0*	--

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

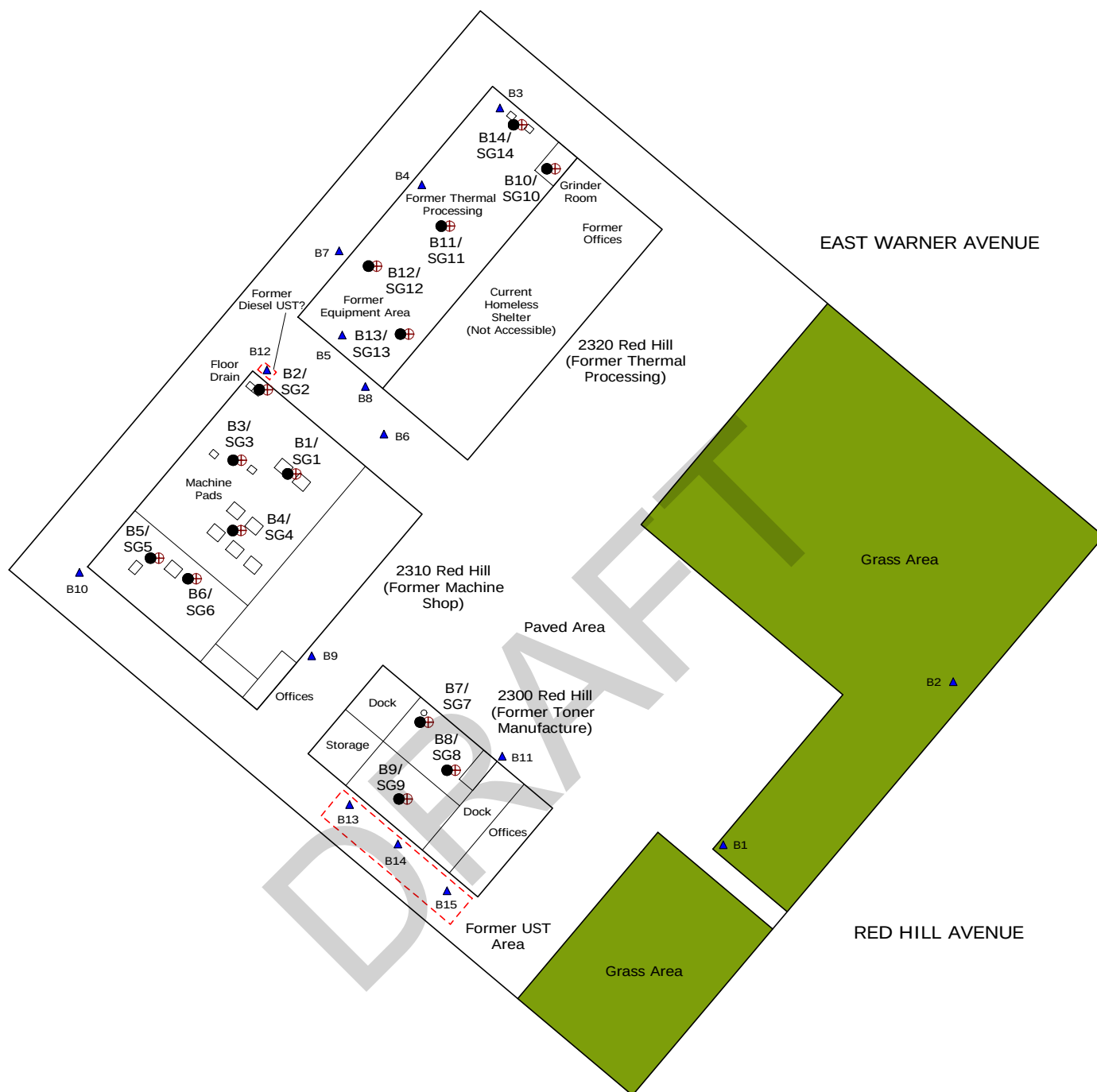
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SITE

FIGURE 1

SITE VICINITY MAP
COMMERCIAL PROPERTY
2300-2320 Red Hill Avenue
Santa Ana, California



LEGEND

- Soil Borings
- ⊕ Soil Gas Probes
- ▲ Previous Borings/Probes (Stantec 2018)

FIGURE 2
GENERAL SITE PLAN
COMMERCIAL PROPERTY
2300-2320 Red Hill Avenue
Santa Ana, California



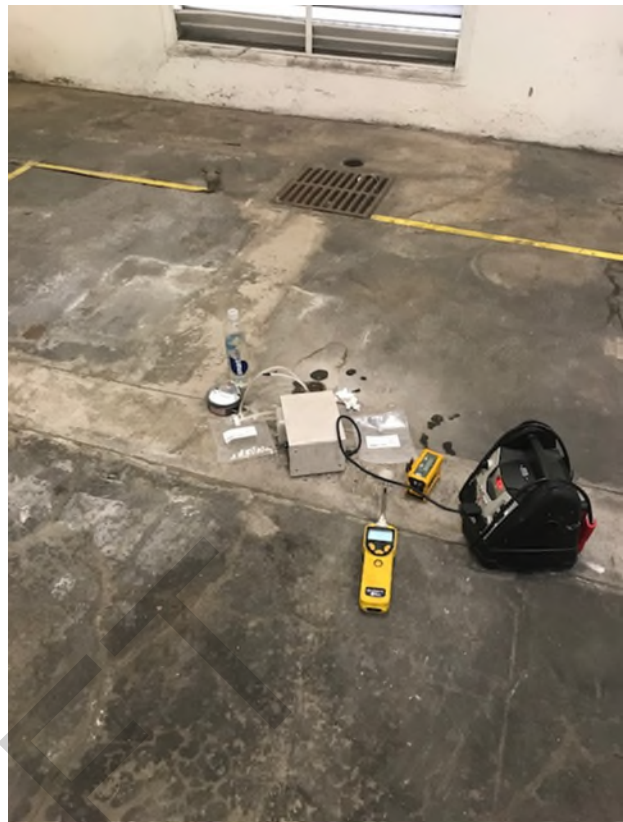
APPENDIX A

Site Photos

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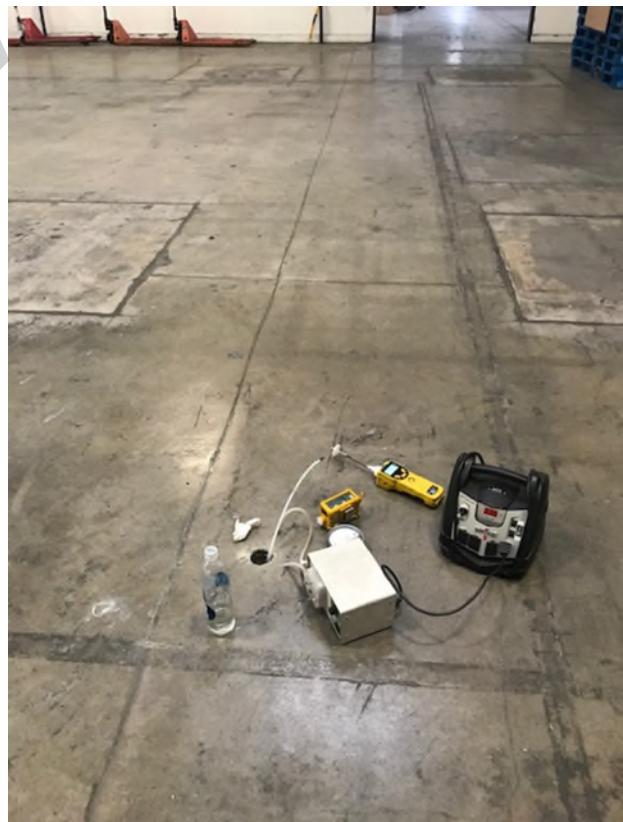
SG1



SG2



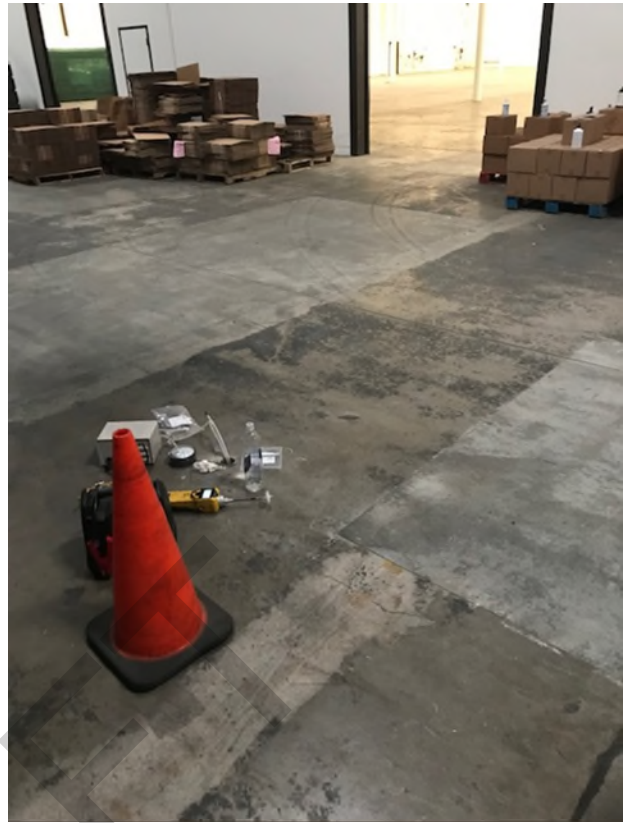
SG3



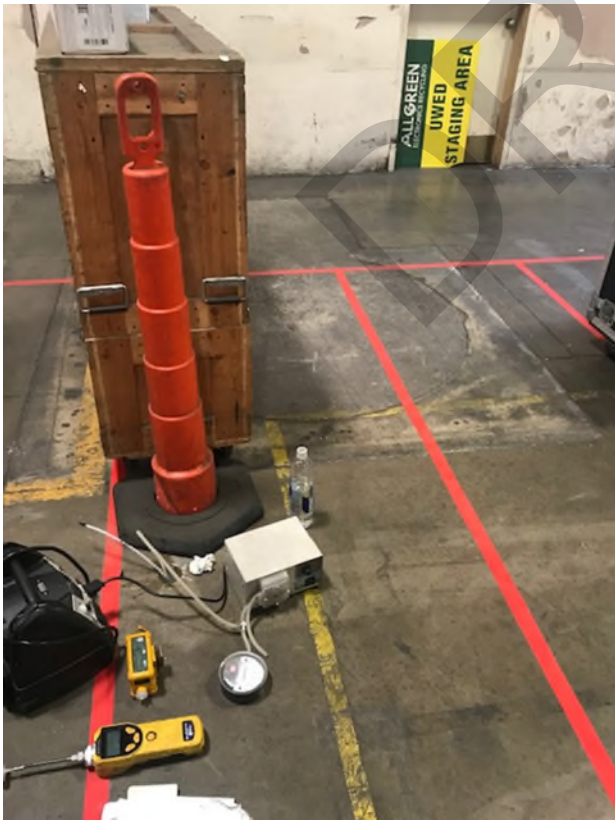
SG4



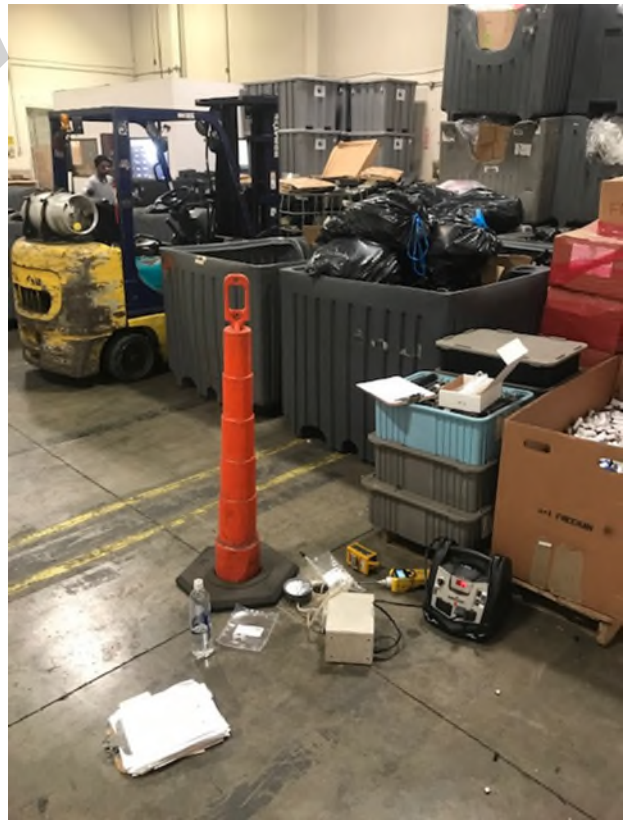
SG5



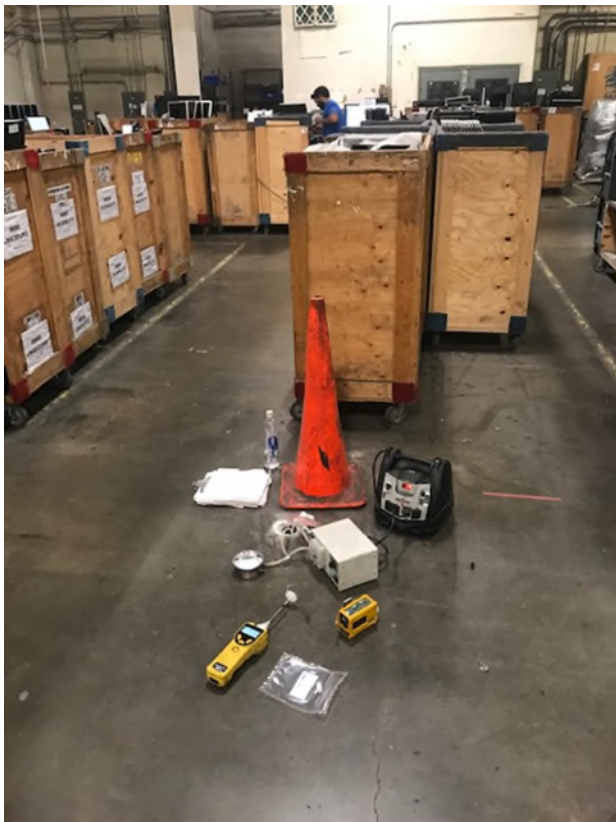
SG6



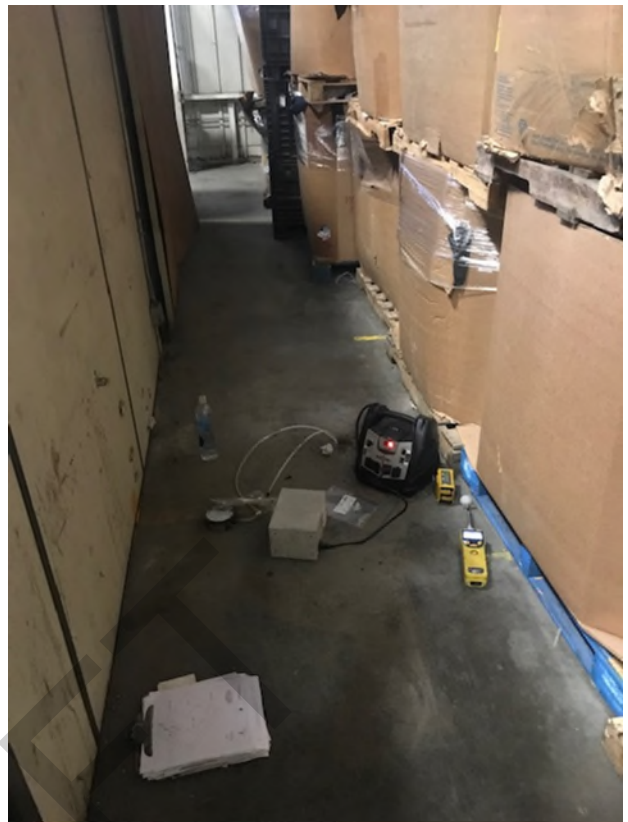
SG7



SG8



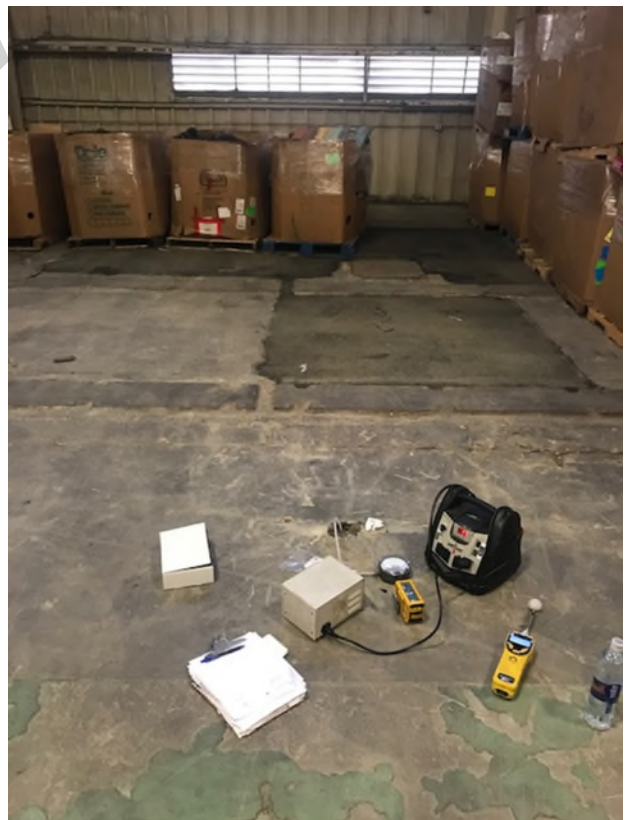
SG9



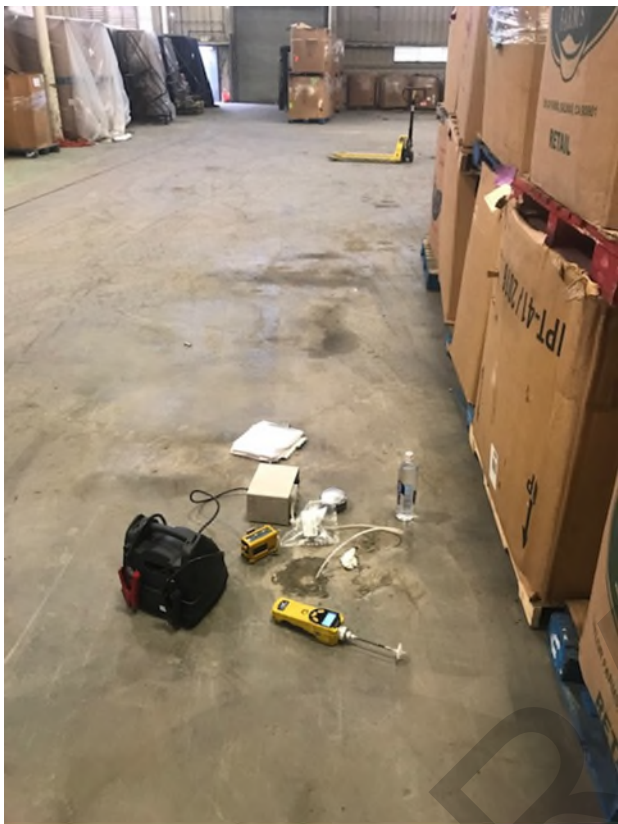
SG10



SG11



SG12



SG13



SG14

APPENDIX B

Laboratory Reports

DRAFT



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LA City#	10261
ELAP#s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

 Ken Zheng, President
05/17/2019 11:37:11

Laboratory Job No. (Certificate of Analysis No.)

1905-00119

Project Name / No.

FORMER INDUSTRIAL

Dates Sampled (from/to)

05/08/19 To 05/08/19

Dates Received (from/to)

05/10/19 To 05/10/19

Dates Reported (from/to)

05/17/19 To 5/17/2019

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None



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

CERTIFICATE OF ANALYSIS

1905-00119

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 B1-5					Date & Time Sampled:		05/08/19	@ 11:45
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	100		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 002 B1-10					Date & Time Sampled:		05/08/19	@ 12:15
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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1905-00119

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B1-10					Date & Time Sampled:		05/08/19	@ 12:15
Sample Matrix: Soil								
.....continued								
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B1-10					Date & Time Sampled:		05/08/19	@ 12:15
Sample Matrix: Soil								
.....continued								
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	111		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	97		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	93		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 003 B2-3					Date & Time Sampled:		05/08/19	@ 12:30
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL

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Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 B2-3 Sample Matrix: Soilcontinued							Date & Time Sampled: 05/08/19 @ 12:30	
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	117		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 004 B2-10 Sample Matrix: Soil							Date & Time Sampled: 05/08/19 @ 12:55	
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B2-10							Date & Time Sampled: 05/08/19 @ 12:55	
Sample Matrix: Soil								
.....continued								
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B2-10					Date & Time Sampled:		05/08/19	@ 12:55
Sample Matrix: Soil								
.....continued								
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	110		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	91		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	88		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 005 B4-5					Date & Time Sampled:		05/08/19	@ 13:15
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/16/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								

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PACIFIC PALISADES, CA 90272

Date Reported 05/17/19
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Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B4-5 Sample Matrix: Soilcontinued					Date & Time Sampled:		05/08/19 @ 13:15	
o-Terphenyl (OTP)	105		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 006 B4-10 Sample Matrix: Soil					Date & Time Sampled:		05/08/19 @ 13:40	
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B4-10							Date & Time Sampled: 05/08/19 @ 13:40	
Sample Matrix: Soil								
.....continued								
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B4-10					Date & Time Sampled:		05/08/19	@ 13:40
Sample Matrix: Soil								
.....continued								
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	105		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	98		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	84		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 007 B5-5					Date & Time Sampled:		05/08/19	@ 14:00
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	103		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 008 B5-10					Date & Time Sampled:		05/08/19	@ 14:30
Sample Matrix: Soil								

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 B5-10					Date & Time Sampled:		05/08/19	@ 14:30
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/16/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/16/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/16/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/16/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 B5-10					Date & Time Sampled:		05/08/19	@ 14:30
Sample Matrix: Soil								
.....continued								
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/16/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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CERTIFICATE OF ANALYSIS

1905-00119

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 B5-10					Date & Time Sampled:		05/08/19	@ 14:30
Sample Matrix: Soil								
.....continued								
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98		%REC	EPA 8260B		70-130	05/16/19	AL
Toluene-D8	98		%REC	EPA 8260B		70-130	05/16/19	AL
Bromofluorobenzene	77		%REC	EPA 8260B		70-130	05/16/19	AL
Sample: 009 B6-5					Date & Time Sampled:		05/08/19	@ 15:10
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/16/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	124		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 010 B6-10					Date & Time Sampled:		05/08/19	@ 15:40
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/16/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/16/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/16/19	AL

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Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 B6-10							Date & Time Sampled: 05/08/19 @ 15:40	
Sample Matrix: Soil								
.....continued								
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/16/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/16/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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PACIFIC PALISADES, CA 90272

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85680
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 B6-10							Date & Time Sampled: 05/08/19 @ 15:40	
Sample Matrix: Soil								
.....continued								
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 B6-10 Sample Matrix: Soilcontinued					Date & Time Sampled:		05/08/19 @ 15:40	
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
[VOC Surrogates]								
Dibromofluoromethane	115		%REC	EPA 8260B		70-130	05/16/19	AL
Toluene-D8	116		%REC	EPA 8260B		70-130	05/16/19	AL
Bromofluorobenzene	77		%REC	EPA 8260B		70-130	05/16/19	AL

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

GSA ENGINEERING
 PACIFIC PALISADES, CA 90272

1905-00119

Date Reported 05/17/2019
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 Invoice No. 85680
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 Customer P.O.

Project: FORMER INDUSTRIAL

Method #	EPA 8015B				
QC Reference #	81594	Date Analyzed: 5/13/2019			Technician: AL
Samples	001 003 005 007 009				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	BLKSRR%REC
C13-C22 o-Terphenyl (OTP)	87	90	89	1	100
					Control Ranges
					LCS %REC SPIKE %RPD BLKSRR%REC
					70 - 130 0 - 25 50 - 150

Method #	EPA 8015M				
QC Reference #	81663	Date Analyzed: 5/15/2019			Technician: AL
Samples	001 003 007				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	BLKSRR%REC
Gasoline (C4-C12)	107	130	118	12	
					Control Ranges
					LCS %REC SPIKE %RPD
					70 - 130 0 - 25

QC Reference #	81691	Date Analyzed: 5/16/2019			Technician: AL
Samples	005 009				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	BLKSRR%REC
Gasoline (C4-C12)	90	100	103	3	
					Control Ranges
					LCS %REC SPIKE %RPD
					70 - 130 0 - 25

Method #	EPA 8260B				
QC Reference #	81662	Date Analyzed: 5/15/2019			Technician: AL
Samples	002 004 006				
Results	LCS %REC	BLKSRR%REC			
1,1-Dichloroethene	124				
Benzene	108				
Bromofluorobenzene		82			
Chlorobenzene	92				
Dibromofluoromethane		95			
Toluene	84				
Toluene-D8		103			
Trichloroethene	77				
					Control Ranges
					LCS %REC BLKSRR%REC
					50 - 150 50 - 150
					50 - 150 50 - 150
					50 - 150 50 - 150
					50 - 150 50 - 150
					50 - 150 50 - 150
					50 - 150 50 - 150
QC Reference #	81689	Date Analyzed: 5/16/2019			Technician: AL
Samples	008 010				



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QUALITY CONTROL DATA REPORT

GSA ENGINEERING

1905-00119

Date Reported 05/17/2019

Date Received 05/10/2019

Date Sampled 05/08/2019

Project: FORMER INDUSTRIAL

Method # EPA 8260B

QC Reference # 81689

Date Analyzed: 5/16/2019

Technician: AL

Samples 008 010

Results

LCS %REC BLKSRR%
EC

1,1-Dichloroethene	124	
Benzene	110	
Bromofluorobenzene		85
Chlorobenzene	106	
Dibromofluoromethan		111
Toluene	76	
Toluene-D8		82
Trichloroethene	100	

Control Ranges

LCS %REC BLKSRR%REC

50 - 150	
50 - 150	
	50 - 150
50 - 150	
	50 - 150
50 - 150	
	50 - 150
50 - 150	

No method blank results were above reporting limit

Respectfully Submitted:

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.

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 ₃	SH=NaOH ST=Na ₂ S ₂ O ₃ HS=H ₂ SO ₄	* 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: Hillmann ConsultingWORK ORDER NUMBER: 1905-119**Temperature:** (Criteria: 0.0°C-6.0°C)Sample Temp. (w/CF) °C(w/CF) 5.0°

- ☐ 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:

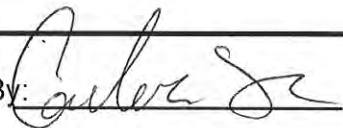
	Yes	No	N/A
Was a COC received	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were all samples sealed in plastic bags?			✓
Did all bottle labels agree with COC? (ID, dates and times)	✓		
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: Date: 5-10-19

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1650 S. Grove Ave., Suite C, Ontario, CA 91761
PH: 951-779-0310 Fax: 951-779-0344
Email: office@arlaboratories.com



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

 Ken Zheng, President
05/17/2019 9:38:20

Laboratory Job No. (Certificate of Analysis No.)

1905-00117

Project Name / No.

FORMER INDUSTRIAL

Dates Sampled (from/to)

05/09/19 To 05/09/19

Dates Received (from/to)

05/10/19 To 05/10/19

Dates Reported (from/to)

05/17/19 To 5/17/2019

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	Result	Qual	Units	RL
B9-5	Gasoline (C4-C12)	0.38		mg/Kg	0.20				



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CERTIFICATE OF ANALYSIS

1905-00117

HILLMANN CONSULTING
DAN LOUKS
1745 W ORANGEWOOD AVE
IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 B7-5					Date & Time Sampled:		05/09/19	@ 9:10
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	116		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 002 B7-10					Date & Time Sampled:		05/09/19	@ 9:50
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B7-10					Date & Time Sampled:		05/09/19	@ 9:50
Sample Matrix: Soil								
.....continued								
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B7-10					Date & Time Sampled:		05/09/19	@ 9:50
Sample Matrix: Soil								
.....continued								
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	89		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	99		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	71		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 003 B8-5					Date & Time Sampled:		05/09/19	@ 10:45
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL

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Date Received 05/10/19
Invoice No. 85669
Cust # G073
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Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 B8-5					Date & Time Sampled:		05/09/19	@ 10:45
Sample Matrix: Soil								
.....continued								
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	108		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 004 B8-10					Date & Time Sampled:		05/09/19	@ 11:10
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B8-10					Date & Time Sampled:		05/09/19	@ 11:10
Sample Matrix: Soil								
.....continued								
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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CERTIFICATE OF ANALYSIS

1905-00117

HILLMANN CONSULTING
DAN LOUKS
1745 W ORANGEWOOD AVE
IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B8-10					Date & Time Sampled:		05/09/19	@ 11:10
Sample Matrix: Soil								
.....continued								
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	127		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	100		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	81		%REC	EPA 8260B		70-130	05/15/19	AL

Sample: 005	B9-5			Date & Time Sampled:		05/09/19	@ 12:10
Sample Matrix:	Soil						
[TPH Gasoline C4-C12]							
Gasoline (C4-C12)	0.38	mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]							
Extraction	Complete		EPA 3550B	1.0		05/13/19	AL
C13-C22	<10	mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20	mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]							



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CERTIFICATE OF ANALYSIS

1905-00117

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Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B9-5 Sample Matrix: Soilcontinued							Date & Time Sampled: 05/09/19 @ 12:10	
o-Terphenyl (OTP)	110		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 006 B9-10 Sample Matrix: Soil							Date & Time Sampled: 05/09/19 @ 12:40	
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Date Reported 05/17/19

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Invoice No. 85669

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING
DAN LOUKS
1745 W ORANGEWOOD AVE
IRVINE, CA

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B9-10							Date & Time Sampled: 05/09/19 @ 12:40	
Sample Matrix: Soil								
.....continued								
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Invoice No. 85669
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B9-10					Date & Time Sampled:		05/09/19	@ 12:40
Sample Matrix: Soil								
.....continued								
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	101		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	81		%REC	EPA 8260B		70-130	05/15/19	AL

Respectfully Submitted:

Ken Zheng

Ken Zheng - Lab Director



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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

1905-00117

Date Reported	05/17/2019
Date Received	05/10/2019
Date Sampled	05/09/2019
Invoice No.	85669
Customer #	G073
Customer P.O.	

Project: FORMER INDUSTRIAL

Method # EPA 8015B								
QC Reference #		81594		Date Analyzed: 5/13/2019		Technician: AL		
Samples	001 003 005							
Results						Control Ranges		
	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	BLKSRR%R EC	LCS %REC	SPIKE %RPD	BLKSRR%REC
C13-C22 o-Terphenyl (OTP)	87	90	89	1	100	70 - 130	0 - 25	50 - 150

Method #		EPA 8015M	
QC Reference #		81646	Date Analyzed: 5/15/2019
Technician: AL			
Samples	001	003	
Results		Control Ranges	
	LCS %REC	LCS %REC	
Gasoline (C4-C12)	91	70 - 130	

QC Reference #		81663	Date Analyzed: 5/15/2019		Technician: AL	
Samples		005				
Results						
	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	Control Ranges	
					LCS %REC	SPIKE %RPD
Gasoline (C4-C12)	107	130	118	12	70 - 130	0 - 25

Method #		EPA 8260B	
QC Reference #		81647	Date Analyzed: 5/15/2019
Technician:		AL	
Samples		002	004
Results		Control Ranges	
	LCS %REC	BLKSRR%REC	
1,1-Dichloroethene	124		50 - 150
Benzene	97		50 - 150
Bromofluorobenzene		83	50 - 150
Chlorobenzene	103		50 - 150
Dibromofluoromethan		103	50 - 150
Toluene	107		50 - 150
Toluene-D8		104	50 - 150
Trichloroethene	96		50 - 150
QC Reference #		81662	Date Analyzed: 5/15/2019
Technician:		AL	
Samples		006	



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FDA#	2030513
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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

1905-00117

Date Reported 05/17/2019
 Date Received 05/10/2019
 Date Sampled 05/09/2019

Project: FORMER INDUSTRIAL

Method # EPA 8260B

QC Reference # 81662 Date Analyzed: 5/15/2019 Technician: AL

Samples 006

Results

	LCS %REC	BLKSRR% REC		LCS %REC	BLKSRR%REC
1,1-Dichloroethene	124			50 - 150	
Benzene	108			50 - 150	
Bromofluorobenzene		82			50 - 150
Chlorobenzene	92			50 - 150	
Dibromofluoromethan		95			50 - 150
Toluene	84			50 - 150	
Toluene-D8		103			50 - 150
Trichloroethene	77			50 - 150	

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.

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 #:

1905-117

Page 1 of 4

[illegible]

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 ₃	SH=NaOH ST=Na ₂ S ₂ O ₃ HS=H ₂ SO ₄	* Sample Container Types: T=Tedlar Air Bag G=Glass Container ST= Steel Tube	B= Brass Tube P=Plastic Bottle V=VOAC Vial	E= EnCore
--------------	--	--	-------------------	---	--	--	--	-----------



Sample Acceptance Checklist

CLIENT: Hillmann Consulting

WORK ORDER NUMBER: 1905-117

Temperature: (Criteria: 0.0°C-6.0°C)

Sample Temp. (w/CF) °C(w/CF) 5.3°

- ☐ 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	✓		
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: 5-10-19

A R Laboratories
1650 S. Grove Ave., Suite C, Ontario, CA 91761
PH: 951-779-0310 Fax: 951-779-0344
Email: office@arlaboratories.com



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

 Ken Zheng, President
05/17/2019 11:37:05

Laboratory Job No. (Certificate of Analysis No.)

1905-00118

Project Name / No.

FORMER INDUSTRIAL

Dates Sampled (from/to)

05/09/19 To 05/10/19

Dates Received (from/to)

05/10/19 To 05/10/19

Dates Reported (from/to)

05/17/19 To 5/17/2019

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None



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CERTIFICATE OF ANALYSIS

1905-00118

HILLMANN CONSULTING
DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85679
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 B10-5					Date & Time Sampled:		05/09/19	@ 14:05
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	109		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 002 B10-10					Date & Time Sampled:		05/09/19	@ 14:50
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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CERTIFICATE OF ANALYSIS

1905-00118

Date Reported 05/17/19

Date Received 05/10/19

Invoice No. 85679

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING
DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B10-10					Date & Time Sampled:		05/09/19	@ 14:50
Sample Matrix: Soil								
.....continued								
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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CERTIFICATE OF ANALYSIS

1905-00118

HILLMANN CONSULTING
DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85679
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B10-10					Date & Time Sampled:		05/09/19	@ 14:50
Sample Matrix: Soil								
.....continued								
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	93		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	96		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	82		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 003 B11-5					Date & Time Sampled:		05/09/19	@ 15:40
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL

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Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85679
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 B11-5					Date & Time Sampled:		05/09/19	@ 15:40
Sample Matrix: Soil								
.....continued								
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	118		%REC	EPA 8015B		50-150	05/13/19	AL
Sample: 004 B11-10					Date & Time Sampled:		05/09/19	@ 16:30
Sample Matrix: Soil								
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B11-10					Date & Time Sampled:		05/09/19	@ 16:30
Sample Matrix: Soil								
.....continued								
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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CERTIFICATE OF ANALYSIS

1905-00118

HILLMANN CONSULTING
DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Date Reported 05/17/19
Date Received 05/10/19
Invoice No. 85679
Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B11-10					Date & Time Sampled:		05/09/19	@ 16:30
Sample Matrix: Soil								
.....continued								
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	106		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	105		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	76		%REC	EPA 8260B		70-130	05/15/19	AL

Sample: 005 B12-3				Date & Time Sampled:		05/10/19	@	9:50
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20	mg/Kg	EPA 8015M	1.0	0.20	05/16/19	AL	
[Extractable Hydrocarbons]								
Extraction	Complete		EPA 3550B	1.0		05/13/19	AL	
C13-C22	<10	mg/Kg	EPA 8015B	1.0	10	05/13/19	AL	
C23-C40	<20	mg/Kg	EPA 8015B	1.0	20	05/13/19	AL	
[Surrogate]								



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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B12-3							Date & Time Sampled: 05/10/19 @ 9:50	
Sample Matrix: Soil								
.....continued								
o-Terphenyl (OTP)	101		%REC	EPA 8015B		50-150	05/13/19	AL
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/16/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/16/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/16/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/16/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/16/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B12-3					Date & Time Sampled:		05/10/19	@ 9:50
Sample Matrix: Soil								
.....continued								
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/16/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/16/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B12-3 Sample Matrix: Soilcontinued					Date & Time Sampled:	05/10/19	@ 9:50	
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/16/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98		%REC	EPA 8260B		70-130	05/16/19	AL
Toluene-D8	101		%REC	EPA 8260B		70-130	05/16/19	AL
Bromofluorobenzene	82		%REC	EPA 8260B		70-130	05/16/19	AL
Sample: 006 B13-3 Sample Matrix: Soil					Date & Time Sampled:	05/10/19	@ 10:55	
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	112		%REC	EPA 8015B		50-150	05/13/19	AL
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B13-3					Date & Time Sampled:	05/10/19	@	10:55
Sample Matrix: Soil								
.....continued								
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	05/15/19	AL
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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CERTIFICATE OF ANALYSIS

1905-00118

Date Reported 05/17/19

Date Received 05/10/19

Invoice No. 85679

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING
DAN LOUKS
1745 W. ORANGEWOOD AVE
IRVINE, CA

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B13-3					Date & Time Sampled:		05/10/19	@ 10:55
Sample Matrix: Soil								
.....continued								
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Date Reported 05/17/19
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Cust # G073
Permit Number
Customer P.O.

Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B13-3					Date & Time Sampled:		05/10/19	@ 10:55
Sample Matrix: Soil								
.....continued								
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surrogates]								
Dibromofluoromethane	99		%REC	EPA 8260B		70-130	05/15/19	AL
Toluene-D8	101		%REC	EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	78		%REC	EPA 8260B		70-130	05/15/19	AL
Sample: 007 B14-3					Date & Time Sampled:		05/10/19	@ 11:55
Sample Matrix: Soil								
[TPH Gasoline C4-C12]								
Gasoline (C4-C12)	<0.20		mg/Kg	EPA 8015M	1.0	0.20	05/15/19	AL
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/13/19	AL
C13-C22	<10		mg/Kg	EPA 8015B	1.0	10	05/13/19	AL
C23-C40	<20		mg/Kg	EPA 8015B	1.0	20	05/13/19	AL
[Surrogate]								
o-Terphenyl (OTP)	114		%REC	EPA 8015B		50-150	05/13/19	AL
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		05/15/19	AL
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	05/15/19	AL
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	05/15/19	AL
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
t-Butanol (TBA)	<0.0625		ma/Ka	EPA 8260B	1.0	0.0625	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 B14-3					Date & Time Sampled:		05/10/19	@ 11:55
Sample Matrix: Soil								
.....continued								
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	05/15/19	AL
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	05/15/19	AL
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL

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Project: FORMER INDUSTRIAL

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 B14-3					Date & Time Sampled:		05/10/19	@ 11:55
Sample Matrix: Soil								
.....continued								
Diisopropyl Ether (DIPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	05/15/19	AL
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	05/15/19	AL
[VOC Surroqates]								

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 B14-3 Sample Matrix: Soilcontinued					Date & Time Sampled:		05/10/19 @ 11:55	
Dibromofluoromethane	70	%REC		EPA 8260B		70-130	05/15/19	AL
Toluene-D8	82	%REC		EPA 8260B		70-130	05/15/19	AL
Bromofluorobenzene	86	%REC		EPA 8260B		70-130	05/15/19	AL

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

QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING
PACIFIC PALISADES, CA 90272

1905-00118

Date Reported 05/17/2019
Date Received 05/10/2019
Date Sampled 05/09/2019
Invoice No. 85679
Customer # G073
Customer P.O.

Project: FORMER INDUSTRIAL

Method #	EPA 8015B				
QC Reference #	81594	Date Analyzed: 5/13/2019			Technician: AL
Samples	001 003 005 006 007				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	BLKSRR%REC
C13-C22 o-Terphenyl (OTP)	87	90	89	1	100
Control Ranges					
	LCS %REC	SPIKE %RPD	BLKSRR%REC		
	70 - 130	0 - 25	50 - 150		

Method #	EPA 8015M				
QC Reference #	81663	Date Analyzed: 5/15/2019			Technician: AL
Samples	001 003 006 007				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	
Gasoline (C4-C12)	107	130	118	12	
Control Ranges					
	LCS %REC	SPIKE %RPD			
	70 - 130	0 - 25			

QC Reference #	81691	Date Analyzed: 5/16/2019			Technician: AL
Samples	005				
Results	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD	
Gasoline (C4-C12)	90	100	103	3	
Control Ranges					
	LCS %REC	SPIKE %RPD			
	70 - 130	0 - 25			

Method #	EPA 8260B				
QC Reference #	81662	Date Analyzed: 5/15/2019			Technician: AL
Samples	002 004 006 007				
Results	LCS %REC	BLKSRR%REC			
1,1-Dichloroethene	124				
Benzene	108				
Bromofluorobenzene		82			
Chlorobenzene	92				
Dibromofluoromethan		95			
Toluene	84				
Toluene-D8		103			
Trichloroethene	77				
Control Ranges					
	LCS %REC	BLKSRR%REC			
	50 - 150				
	50 - 150	50 - 150			
	50 - 150	50 - 150			
	50 - 150	50 - 150			
	50 - 150	50 - 150			
	50 - 150	50 - 150			
QC Reference #	81689	Date Analyzed: 5/16/2019			Technician: AL
Samples	005				



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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

1905-00118

Date Reported 05/17/2019
 Date Received 05/10/2019
 Date Sampled 05/09/2019

Project: FORMER INDUSTRIAL

Method # EPA 8260B

QC Reference # 81689 Date Analyzed: 5/16/2019 Technician: AL

Samples 005

Results

	LCS %REC	BLKSRR% REC		LCS %REC	BLKSRR%REC
1,1-Dichloroethene	124			50 - 150	
Benzene	110			50 - 150	
Bromofluorobenzene		85			50 - 150
Chlorobenzene	106			50 - 150	
Dibromofluoromethan		111			50 - 150
Toluene	76			50 - 150	
Toluene-D8		82			50 - 150
Trichloroethene	100			50 - 150	

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

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**A & R Laboratories**

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CHAIN OF CUSTODY

A & R Work Order #:

1905-118

Page 1 of 1

Client Name HILLMANN CONSULTANT				☒ Chilled		Analyses Requested												Turn Around Time Requested														
E-mail				☐ Intact														☐ Rush 8 12 24 48 Hours														
Address 1745 W ORANGEWOOD AVE, ORANGE				☐ Seal														Remarks														
Report Attention Dan Louk		Phone (714) 206-3916		Sampled By Dan Louk																												
Project No./ Name PONA PUNISHA		Project Site 2320 LEDHILL AVE, SAO AN																														
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																	
1	B10-5	5/9/19	17:05	SOIL	BUR	ENCORE 16							X																			
2	B10-10		14:50				X																									
3	B11-5		15:40										X																			
4	B11-10		16:30				X																									
5	B12-3	5/10/19	9:50				X						X																			
6	B13-3		10:55				X						X																			
7	B14-3		11:55				X						X																			
Note: Samples are discarded 30 days after results are reported unless other arrangements are made.																																
																	Relinquished By [Signature]		Company Hillmann		Date 5/10/19		Time 12:00		Received By [Signature]		Company AR		Date 5-10-19		Time 12:00	
																	Relinquished By [Signature]		Company AR		Date 5-10-19		Time 15:20		Received By [Signature]		Company [Signature]		Date 5-10-19		Time 15:20	

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=HNO₃

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* 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: Hillmann ConsultingWORK ORDER NUMBER: 1905-118**Temperature:** (Criteria: 0.0°C-6.0°C)Sample Temp. (w/CF) °C(w/CF) 4.9°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:

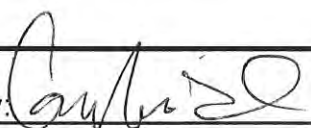
	Yes	No	N/A
Was a COC received	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were all samples sealed in plastic bags?			✓
Did all bottle labels agree with COC? (ID, dates and times)	✓		
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: Date: 5-10-19

AR Laboratories
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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

 Ken Zheng, President
05/14/2019 10:42:20

Laboratory Job No. (Certificate of Analysis No.)

1905-00126

Project Name / No.

FORMER MACHINE SHOP

Dates Sampled (from/to)

05/13/19 To 05/13/19

Dates Received (from/to)

05/13/19 To 05/13/19

Dates Reported (from/to)

05/14/19 To 5/14/2019

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None



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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-5					Date & Time Sampled:		05/13/19	@ 11:50
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-5					Date & Time Sampled:		05/13/19	@ 11:50
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-5 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 11:50	
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	99		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	96		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	84		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 002 SG1-10 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 11:55	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG1-10					Date & Time Sampled:		05/13/19	@ 11:55
Sample Matrix: Soil Vapor								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG1-10							Date & Time Sampled: 05/13/19 @ 11:55	
Sample Matrix: Soil Vapor								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	106		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	100		%REC	EPA 8260B		70-130	05/13/19	AL

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Invoice No. 85638
Cust # G073
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG1-10 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19	@ 11:55
Bromofluorobenzene	82		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 003 SG2-5 Sample Matrix: Soil Vapor [VOCs by GCMS]					Date & Time Sampled:		05/13/19	@ 12:05
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG2-5					Date & Time Sampled:		05/13/19	@ 12:05
Sample Matrix: Soil Vapor								
.....continued								
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG2-5 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 12:05	
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	94		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	98		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	85		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 004 SG2-10 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 12:10	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

Date Reported 05/14/19

Date Received 05/13/19

Invoice No. 85638

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

ORANGE, CA

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG2-10					Date & Time Sampled:	05/13/19	@ 12:10	
Sample Matrix: Soil Vapor								
.....continued								
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG2-10							Date & Time Sampled: 05/13/19 @ 12:10	
Sample Matrix: Soil Vapor								
.....continued								
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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DAN LOUKS
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ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG2-10					Date & Time Sampled:		05/13/19	@ 12:10
Sample Matrix: Soil Vapor								
.....continued								
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98	%REC		EPA 8260B		70-130	05/13/19	AL
Toluene-D8	97	%REC		EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	95	%REC		EPA 8260B		70-130	05/13/19	AL
Sample: 005 SG3-2					Date & Time Sampled:		05/13/19	@ 12:20
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG3-2					Date & Time Sampled:		05/13/19	@ 12:20
Sample Matrix: Soil Vapor								
.....continued								
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG3-2 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19	@ 12:20
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	99		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	84		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 006 SG4-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19	@ 12:30
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG4-5							Date & Time Sampled: 05/13/19 @ 12:30	
Sample Matrix: Soil Vapor								
.....continued								
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG4-5					Date & Time Sampled:		05/13/19	@ 12:30
Sample Matrix: Soil Vapor								
.....continued								
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Date Received 05/13/19
Invoice No. 85638
Cust # G073
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG4-5 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 12:30	
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	110		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	100		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	83		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 007 SG4-10 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 12:35	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG4-10					Date & Time Sampled:		05/13/19	@ 12:35
Sample Matrix: Soil Vapor								
.....continued								
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG4-10					Date & Time Sampled:		05/13/19	@ 12:35
Sample Matrix: Soil Vapor								
.....continued								
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	121		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	88		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	94		%REC	EPA 8260B		70-130	05/13/19	AL



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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG5-5					Date & Time Sampled:		05/13/19	@ 12:45
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Invoice No. 85638
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG5-5					Date & Time Sampled:		05/13/19	@ 12:45
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG5-5 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 12:45	
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	98		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	101		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	74		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 009 SG5-10 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 12:50	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Date Reported 05/14/19
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Invoice No. 85638
Cust # G073
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 SG5-10					Date & Time Sampled:	05/13/19	@ 12:50	
Sample Matrix: Soil Vapor								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 SG5-10					Date & Time Sampled:		05/13/19	@ 12:50
Sample Matrix: Soil Vapor								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	109		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	102		%REC	EPA 8260B		70-130	05/13/19	AL

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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 SG5-10 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 12:50	
Bromofluorobenzene	86		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 010 SG6-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 13:00	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Date Reported 05/14/19
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Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 SG6-5					Date & Time Sampled:		05/13/19	@ 13:00
Sample Matrix: Soil Vapor								
.....continued								
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Invoice No. 85638
Cust # G073
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 SG6-5 Sample Matrix: Soil Vaporcontinued					Date & Time Sampled:		05/13/19 @ 13:00	
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	103		%REC	EPA 8260B		70-130	05/13/19	AL
Toluene-D8	108		%REC	EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	87		%REC	EPA 8260B		70-130	05/13/19	AL
Sample: 011 SG6-10 Sample Matrix: Soil Vapor					Date & Time Sampled:		05/13/19 @ 13:05	
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Invoice No. 85638
Cust # G073
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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 SG6-10					Date & Time Sampled:		05/13/19	@ 13:05
Sample Matrix: Soil Vapor								
.....continued								
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 SG6-10					Date & Time Sampled:		05/13/19	@ 13:05
Sample Matrix: Soil Vapor								
.....continued								
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/13/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/13/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/13/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/13/19	AL

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



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LA City#	10261
ELAP#s	2789
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CERTIFICATE OF ANALYSIS

1905-00126

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE
ORANGE, CA

Date Reported 05/14/19
Date Received 05/13/19
Invoice No. 85638
Cust # G073
Permit Number
Customer P.O.

Project: FORMER MACHINE SHOP

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 SG6-10							Date & Time Sampled: 05/13/19 @ 13:05	
Sample Matrix: Soil Vapor								
.....continued								
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/13/19	AL
[VOC Surrogates]								
Dibromofluoromethane	100	%REC		EPA 8260B		70-130	05/13/19	AL
Toluene-D8	109	%REC		EPA 8260B		70-130	05/13/19	AL
Bromofluorobenzene	84	%REC		EPA 8260B		70-130	05/13/19	AL

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

HILLMANN CONSULTING
 PACIFIC PALISADES, CA 90272

1905-00126

Date Reported 05/14/2019
 Date Received 05/13/2019
 Date Sampled 05/13/2019
 Invoice No. 85638
 Customer # G073
 Customer P.O.

Project: FORMER MACHINE SHOP

Method # EPA 8260B

QC Reference # 81572 Date Analyzed: 5/13/2019 Technician: AL

Samples 001 002 003 004 005 006 007 008 009 010 011

Results

LCS %REC

1,1-Dichloroethene	140
Benzene	120
Chlorobenzene	110
Toluene	120
Trichloroethene	95

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.

ARL

A & R Laboratories

1650 S. Grove Ave., Ste C, Ontario, CA 91761
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CHAIN OF CUSTODY

A & R Work Order #:

1905-126

Page 1 of 1

Client Name HILLMAN CONSULTING				☐ Chilled		Analyses Requested										Turn Around Time Requested															
E-mail				☒ Intact		RUSH										☒ Rush 2 24 48 Hours															
Address 1745 ORANGEWOOD AVE H110 ORANGE				☐ Seal												☐ Normal															
Report Attention DL NH																															
Project FORMER MACHINE SHOP		Project Site 2310 REDHILL BLVD SANTA ANA CAI		Sampled By																											
No./ Name		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	
Lab # (Lab use)	Client Sample ID																														
1	SG1-5	5-13-19	11:50	VAPOR	—	TEDLAR	X																								
2	SG1-10		11:55				X																								
3	SG2-5		12:05				X																								
4	SG2-10		12:10				X																								
5	SG3-2		12:20				X																								
6	SG4-5		12:30				X																								
7	SG4-10		12:35				X																								
8	SG5-5		12:45				X																								
9	SG5-10		12:50				X																								
10	SG6-5		13:00				X																								
11	SG6-10		13:05				X																								
Relinquished By <i>[Signature]</i>		Company Hillman		Date 5-13-19		Time 13:15		Received By <i>[Signature]</i>		Company		Date 5-13-19		Time 13:15		Note: Samples are discarded 30 days after results are reported unless other arrangements are made.															
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=HNO₃

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* Sample Container Types:

T=Tedlar Air Bag
G=Glass Container
ST=Steel Tube

B=Brass Tube
P=Plastic Bottle
V=VOA Vial

E=EnCore



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President
05/15/2019 10:10:34

Laboratory Job No. (Certificate of Analysis No.)

1905-00140

Project Name / No.

FORMER WAREHOUSE

Dates Sampled (from/to)

05/14/19 To 05/14/19

Dates Received (from/to)

05/14/19 To 05/14/19

Dates Reported (from/to)

05/15/19 To 5/15/2019

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
SG8-5	C4-C12	224		µg/L	50	SG8-10	C4-C12	468		µg/L	50
SG9-5	C4-C12	1860		µg/L	50	SG9-10	C4-C12	2340		µg/L	50



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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG7-5					Date & Time Sampled:		05/14/19	@ 12:25
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00140

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG7-5							Date & Time Sampled: 05/14/19 @ 12:25	
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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Cust # G073

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Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG7-5					Date & Time Sampled:		05/14/19	@ 12:25
Sample Matrix: Soil Vapor								
.....continued								
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	113		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	94		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	81		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 002 SG7-10					Date & Time Sampled:		05/14/19	@ 12:30
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL



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DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG7-10					Date & Time Sampled:		05/14/19	@ 12:30
Sample Matrix: Soil Vapor								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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



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CERTIFICATE OF ANALYSIS

1905-00140

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG7-10							Date & Time Sampled: 05/14/19 @ 12:30	
Sample Matrix: Soil Vapor								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	113		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	76		%REC	EPA 8260B		70-130	05/14/19	AL

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SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG7-10							Date & Time Sampled: 05/14/19 @ 12:30	
Sample Matrix: Soil Vapor								
.....continued								
Bromofluorobenzene	90		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 003 SG8-5							Date & Time Sampled: 05/14/19 @ 12:40	
Sample Matrix: Soil Vapor								
[TPH Gasoline by GCMS]								
C4-C12	224		µg/L	LUFT GCMS	5.0	50	05/14/19	AL
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG8-5							Date & Time Sampled: 05/14/19 @ 12:40	
Sample Matrix: Soil Vapor								
.....continued								
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

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Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG8-5					Date & Time Sampled:		05/14/19	@ 12:40
Sample Matrix: Soil Vapor								
.....continued								
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	114		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	76		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	90		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 004 SG8-10					Date & Time Sampled:		05/14/19	@ 12:45
Sample Matrix: Soil Vapor								
[TPH Gasoline by GCMS]								
C4-C12	468		µg/L	LUFT GCMS	5.0	50	05/14/19	AL
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG8-10							Date & Time Sampled: 05/14/19 @ 12:45	
Sample Matrix: Soil Vapor								
.....continued								
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00140

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG8-10					Date & Time Sampled:		05/14/19	@ 12:45
Sample Matrix: Soil Vapor								
.....continued								
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG8-10							Date & Time Sampled: 05/14/19 @ 12:45	
Sample Matrix: Soil Vapor								
.....continued								
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	119		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	85		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	91		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 005 SG9-5							Date & Time Sampled: 05/14/19 @ 12:55	
Sample Matrix: Soil Vapor								
[TPH Gasoline by GCMS]								
C4-C12	1860		µg/L	LUFT GCMS	5.0	50	05/14/19	AL
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL

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Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG9-5							Date & Time Sampled: 05/14/19 @ 12:55	
Sample Matrix: Soil Vapor								
.....continued								
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DIPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG9-5					Date & Time Sampled:		05/14/19	@ 12:55
Sample Matrix: Soil Vapor								
.....continued								
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	108		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	96		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	88		%REC	EPA 8260B		70-130	05/14/19	AL

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DAN LOUKS

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SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG9-10					Date & Time Sampled:		05/14/19	@ 13:00
Sample Matrix: Soil Vapor								
[TPH Gasoline by GCMS]								
C4-C12	2340		µg/L	LUFT GCMS	5.0	50	05/14/19	AL
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00140

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG9-10							Date & Time Sampled: 05/14/19 @ 13:00	
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00140

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85650

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE#110

ORANGE, CA

Project: FORMER WAREHOUSE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG9-10							Date & Time Sampled: 05/14/19 @ 13:00	
Sample Matrix: Soil Vapor								
.....continued								
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	103		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	95		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	99		%REC	EPA 8260B		70-130	05/14/19	AL

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



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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.

DRAFT



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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING
 ORANGE, CA

1905-00140

Date Reported 05/15/2019
 Date Received 05/14/2019
 Date Sampled 05/14/2019
 Invoice No. 85650
 Customer # G073
 Customer P.O.

Project: FORMER WAREHOUSE

Method # EPA 8260B

QC Reference # 81625 Date Analyzed: 5/14/2019 Technician: AL

Samples 001 002 003 004 005 006

Results

LCS %REC

1,1-Dichloroethene	120
Benzene	110
Chlorobenzene	100
Toluene	105
Trichloroethene	95

Control Ranges

LCS %REC

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

Method # LUFT GCMS

QC Reference # 81631 Date Analyzed: 5/14/2019 Technician: AL

Samples 003 004 005 006

Results

LCS %REC

C4-C12	125
--------	-----

Control Ranges

LCS %REC

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.

[illegible]

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

$$\begin{array}{l} \text{IC=Ice} \\ \text{HC=HCl} \\ \text{HN=HNO}_3 \end{array}$$

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* Sample Container Types:

T= Tedlar Air Bag
G= Glass Container
ST= Steel Tube

B= Brass Tube
P=Plastic Bottle
V=VOA Vial

E= EnCore



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President
05/15/2019 10:10:28

Laboratory Job No. (Certificate of Analysis No.)

1905-00139

Project Name / No.

FORMER THERMAL PROCESSING

Dates Sampled (from/to)

05/14/19 To 05/14/19

Dates Received (from/to)

05/14/19 To 05/14/19

Dates Reported (from/to)

05/15/19 To 5/15/2019

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		Result	Qual	Units	RL
SG10-9	Tetrachloroethene	0.12		µg/L	0.10	SG11-3	Tetrachloroethene	0.10	µg/L	0.10
SG11-8	Tetrachloroethene	0.20		µg/L	0.10	SG13-4	Tetrachloroethene	0.11	µg/L	0.10



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CERTIFICATE OF ANALYSIS

1905-00139

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85649

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG10-4					Date & Time Sampled:		05/14/19	@ 11:20
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG10-4							Date & Time Sampled: 05/14/19 @ 11:20	
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00139

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85649

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG10-4					Date & Time Sampled:		05/14/19	@ 11:20
Sample Matrix: Soil Vapor								
.....continued								
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	103		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	99		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	87		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 002 SG10-9					Date & Time Sampled:		05/14/19	@ 11:25
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG10-9							Date & Time Sampled: 05/14/19 @ 11:25	
Sample Matrix: Soil Vapor								
.....continued								
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG10-9							Date & Time Sampled: 05/14/19 @ 11:25	
Sample Matrix: Soil Vapor								
.....continued								
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethane	0.12		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	111		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	82		%REC	EPA 8260B		70-130	05/14/19	AL

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ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG10-9							Date & Time Sampled: 05/14/19 @ 11:25	
Sample Matrix: Soil Vapor								
.....continued								
Bromofluorobenzene	92		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 003 SG11-3							Date & Time Sampled: 05/14/19 @ 11:35	
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG11-3							Date & Time Sampled: 05/14/19 @ 11:35	
Sample Matrix: Soil Vapor								
.....continued								
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00139

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85649

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG11-3					Date & Time Sampled:		05/14/19	@ 11:35
Sample Matrix: Soil Vapor								
.....continued								
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	103		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	99		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	80		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 004 SG11-8					Date & Time Sampled:		05/14/19	@ 11:40
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG11-8							Date & Time Sampled: 05/14/19 @ 11:40	
Sample Matrix: Soil Vapor								
.....continued								
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG11-8							Date & Time Sampled: 05/14/19 @ 11:40	
Sample Matrix: Soil Vapor								
.....continued								
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethane	0.20		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG11-8					Date & Time Sampled:		05/14/19	@ 11:40
Sample Matrix: Soil Vapor								
.....continued								
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	109	%REC		EPA 8260B		70-130	05/14/19	AL
Toluene-D8	98	%REC		EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	92	%REC		EPA 8260B		70-130	05/14/19	AL
Sample: 005 SG12-4					Date & Time Sampled:		05/14/19	@ 11:50
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG12-4							Date & Time Sampled: 05/14/19 @ 11:50	
Sample Matrix: Soil Vapor								
.....continued								
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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CERTIFICATE OF ANALYSIS

1905-00139

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85649

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG12-4					Date & Time Sampled:		05/14/19	@ 11:50
Sample Matrix: Soil Vapor								
.....continued								
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	105		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	100		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	78		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 006 SG13-4					Date & Time Sampled:		05/14/19	@ 12:00
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG13-4							Date & Time Sampled: 05/14/19 @ 12:00	
Sample Matrix: Soil Vapor								
.....continued								
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG13-4							Date & Time Sampled: 05/14/19 @ 12:00	
Sample Matrix: Soil Vapor								
.....continued								
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	0.11		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG13-4					Date & Time Sampled:		05/14/19	@ 12:00
Sample Matrix: Soil Vapor								
.....continued								
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	114		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	111		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	86		%REC	EPA 8260B		70-130	05/14/19	AL
Sample: 007 SG14-4					Date & Time Sampled:		05/14/19	@ 12:10
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG14-4							Date & Time Sampled: 05/14/19 @ 12:10	
Sample Matrix: Soil Vapor								
.....continued								
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromoethane (EDB)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dibromo-3-Chloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dibromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,4-Dichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Dichlorodifluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,2-Dichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2,2-Dichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
cis-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
trans-1,3-Dichloropropene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Diisopropyl Ether (DiPE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Ethyl-t-Butyl Ether (EtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Hexachlorobutadiene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
2-Hexanone	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Isopropylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
4-Isopropyltoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL

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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LA City#	10261
ELAP#s	2789
	2790
	2122

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CERTIFICATE OF ANALYSIS

1905-00139

Date Reported 05/15/19

Date Received 05/14/19

Invoice No. 85649

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING

DAN LOUKS

1745 ORANGEWOOD AVE

SUITE #110

ORANGE, CA

Project: FORMER THERMAL PROCESSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG14-4					Date & Time Sampled:		05/14/19	@ 12:10
Sample Matrix: Soil Vapor								
.....continued								
Methylene Chloride	<0.1		µg/L	EPA 8260B	1.0	0.1	05/14/19	AL
4-Methyl-2-Pentanone (MIBK)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
Methyl-t-butyl Ether (MtBE)	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Naphthalene	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
n-Propylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Styrene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2,2-Tetrachloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Tetrachloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Toluene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trichlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,1-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,1,2-Trichloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichloroethene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,3-Trichloropropane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorofluoromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,2,4-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
1,3,5-Trimethylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	05/14/19	AL
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	05/14/19	AL
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	05/14/19	AL
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	05/14/19	AL
[VOC Surrogates]								
Dibromofluoromethane	109		%REC	EPA 8260B		70-130	05/14/19	AL
Toluene-D8	98		%REC	EPA 8260B		70-130	05/14/19	AL
Bromofluorobenzene	76		%REC	EPA 8260B		70-130	05/14/19	AL



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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
 ORANGE, CA

1905-00139

Date Reported 05/15/2019
 Date Received 05/14/2019
 Date Sampled 05/14/2019
 Invoice No. 85649
 Customer # G073
 Customer P.O.

Project: FORMER THERMAL PROCESSING

Method # EPA 8260B

QC Reference # 81625 Date Analyzed: 5/14/2019 Technician: AL

Samples 001 002 003 004 005 006 007

Results

LCS %REC

1,1-Dichloroethene	120
Benzene	110
Chlorobenzene	100
Toluene	105
Trichloroethene	95

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.

[illegible]

APPENDIX C

Drilling Logs

DRAFT

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B1
PROJECT Former Ricoh Site **OWNER** _____
LOCATION 2310 Redhill Avenue, Santa Ana, CA **PROJECT NUMBER** _____
DATE DRILLED May 8, 2019 **TOTAL DEPTH OF HOLE** 10 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/John **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
2						ML	Sandy SILT; light brown, very fine sand, no odor.
5			0.0	B1-5		ML	SILT; brown, low plasticity, some clay and very fine sand.
10			0.0	B1-10		ML/SM	SILT; brown, low plasticity, some clay and very fine sand. Changes to Silty SAND; dark gray, fine grained, no odor. Install Probe SG1 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B2

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2310 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 8, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
3			0.0	B2-3		CL	Silty CLAY; brown, low plasticity, no odor.
5						CL	Silty CLAY; dark gray, low plasticity, no odor.
10			0.0	B2-10		SM	Silty SAND; light gray, very fine grained, loose, damp, no odor. Install Probe SG2 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B3

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2310 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 8, 2019

TOTAL DEPTH OF HOLE 2 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
2			0.0			ML	Gravelly Sandy SILT; light brown, no odor. Refusal at 2 feet, concrete. Install Probe SG3 with sampling tip set at 2 feet. Install filter pack around tip. Seal with bentonite and neat cement to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B4

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2310 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 8, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5			0.0	B4-5		ML	Clayey SILT; brown, low plasticity, some very fine sand, no odor.
10			0.0	B4-10		ML	Clayey SILT; light gray, low plasticity, some very fine sand, no odor. Install Probe SG4 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B6

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2310 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 8, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
3						ML	Sandy SILT; light brown, very fine sand, some clay, loose, no odor.
5			0.0	B6-5		CL	Silty CLAY; dark gray, low plasticity, slightly moist, no odor.
7						ML	Thin lens of Silty SAND at 7 ft.
10			0.0	B6-10		CL	Silty CLAY; dark gray, low plasticity, slightly moist, no odor.
							Install Probe SG6 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B7

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2300 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 9, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
3						CL	Silty CLAY; dark brown, low plasticity, slightly moist, no odor.
5			0.0	B7-5		ML	Clayey Sandy SILT; brown, low plasticity, no odor.
10			0.0	B7-10		SM	Silty SAND; light brown, very fine sand, some clay, damp, no odor. Install Probe SG7 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B8

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2300 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 9, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
3						CL	Silty CLAY; dark brown, low plasticity, slightly moist, no odor.
5			1.2	B8-5		ML	Clayey Sandy SILT; brown, low plasticity, very slight sour odor.
10			0.0	B8-10		SM	Silty SAND; light brown, very fine sand, some clay, damp, no odor. Install Probe SG8 with sampling tips set at 5 and 10 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B9

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2300 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 9, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
3			1.5			CL	Silty CLAY; dark brown, low plasticity, slightly moist, no odor.
5			2.2	B9-5		ML	Clayey Sandy SILT; brown, low plasticity, slight sour odor.
10			0.0	B9-10		SM	Silty SAND; light brown, very fine sand, some clay, damp, no odor. Hole caved to 9 feet. Install Probe SG9 with sampling tips set at 4 and 9 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B10

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2320 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 9, 2019

TOTAL DEPTH OF HOLE 10 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/John

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5			0.0	B10-5		CL	Silty CLAY; brown, low plasticity, some very fine sand, slightly moist, no odor.
7						SC	Clayey SAND; brown, very fine grained, slightly moist, no odor.
8						SM	Silty SAND; brown, very fine grained, damp, no odor.
10			0.0	B10-10		CL	Silty CLAY; brown, medium plasticity, soft, moist, no odor. Hole caved to 9 feet. Install Probe SG10 with sampling tips set at 4 and 9 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER B11

PROJECT Former Ricoh Site

OWNER _____

LOCATION 2320 Redhill Avenue, Santa Ana, CA

PROJECT NUMBER _____

DATE DRILLED May 9, 2019

TOTAL DEPTH OF HOLE 10 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/John

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						CL	Silty CLAY; dark brown, low plasticity, slightly moist, no odor.
5			0.0	B11-5		ML	Sandy SILT; brown, very fine grained, loose, no odor.
7						SW	SAND; light brown, very fine to fine grained, dry, no odor.
10			0.0	B11-10		SW	SAND; light brown, very fine to fine grained, dry, no odor. Hole caved to 8 feet. Install Probe SG11 with sampling tips set at 3 and 8 feet. Install filter pack around tips. Seal with bentonite and neat cement between probes and to surface.

APPENDIX D

Soil Gas Monitoring Data

DRAFT

SOIL GAS MONITORING DATA FORM

PROJECT: Commercial Property

LOCATION: 2300, 2310 and 2320 Red Hill Avenue, Santa Ana, California

DATE: May 13, 2019

	VAPOR PROBE INFO							
PROBE ID	SG1	SG1	SG2	SG2	SG3	SG4	SG4	
PROBE DEPTH (ft)	5	10	5	10	2	5	10	
	EXTRACTION DATA							
Applied Vacuum (in. WC)	1.2	2.0	30.0	8.0	1.3	50.0	30.0	
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Pore Volumes (borehole - sand pack)	3	3	3	3	3	3	3	
	MONITORING DATA							
OXYGEN (%)	8.8	0.3	9.0	0.2	18.3	0.6	1.2	
CARBON DIOXIDE (%)	1.3	4.2	>5	>5	>5	4.2	4.2	
VOC by PID (ppm)	0.0	0.0	1.4	0.0	0.0	0.0	0.0	

	VAPOR PROBE INFO							
PROBE ID	SG5	SG5	SG6	SG6				
PROBE DEPTH (ft)	5	10	5	10				
	EXTRACTION DATA							
Applied Vacuum (in. WC)	3.0	30	13.6	3.6				
FLOW (L/min)	0.2	0.2	0.2	0.2				
Pore Volumes (borehole - sand pack)	3	3	3	3				
	MONITORING DATA							
OXYGEN (%)	8.2	0.3	8.6	0.2				
CARBON DIOXIDE (%)	>5	>5	>5	>5				
VOC by PID (ppm)	8.5	6.0	3.0	5.0				

REMARKS:

SAMPLED BY:

NH

SOIL GAS MONITORING DATA FORM

PROJECT: Commercial Property

LOCATION: 2300, 2310 and 2320 Red Hill Avenue, Santa Ana, California

DATE: May 14, 2019

	VAPOR PROBE INFO							
PROBE ID	SG7	SG7	SG8	SG8	SG9	SG9		
PROBE DEPTH (ft)	5	10	5	10	5	10		
	EXTRACTION DATA							
Applied Vacuum (in. WC)	1.8	1.0	1.0	1.1	1.3	1.1		
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2	0.2		
Pore Volumes (borehole - sand pack)	3	3	3	3	3	3		
	MONITORING DATA							
OXYGEN (%)	1.8	0.8	1.2	0.2	1.8	0.2		
CARBON DIOXIDE (%)	1.4	0.3	1.2	>5	2.5	>5		
VOC by PID (ppm)	0.0	0.0	175	420	1,000	1,750		

	VAPOR PROBE INFO							
PROBE ID	SG10	SG10	SG11	SG11	SG12	SG13	SG14	
PROBE DEPTH (ft)	4	9	3	8	4	4	4	
	EXTRACTION DATA							
Applied Vacuum (in. WC)	1.0	1.1	1.1	1.0	4.0	10	10	
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Pore Volumes (borehole - sand pack)	3	3	3	3	3	3	3	
	MONITORING DATA							
OXYGEN (%)	10.7	9.5	13.1	11.6	8.5	16.7	9.6	
CARBON DIOXIDE (%)	0.35	0.7	0.3	1.1	0.3	0.3	0.4	
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

REMARKS:

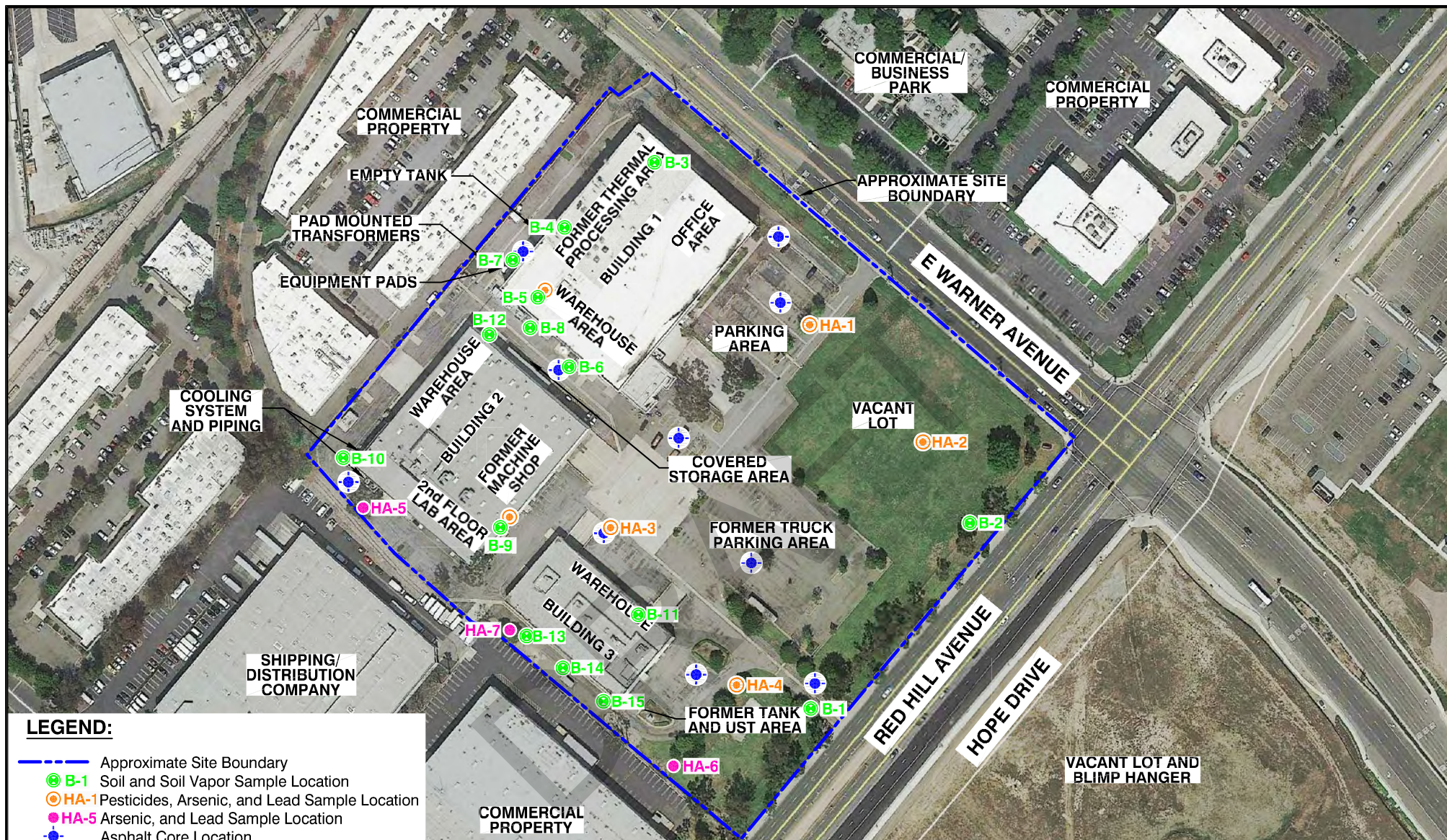
SAMPLED BY:

NH

APPENDIX E

Previous Site Assessment Data

DRAFT



LEGEND:

- Approximate Site Boundary
- B-1 Soil and Soil Vapor Sample Location
- HA-1 Pesticides, Arsenic, and Lead Sample Location
- HA-5 Arsenic, and Lead Sample Location
- Asphalt Core Location



0 200 400

APPROXIMATE SCALE IN FEET



FOR:

PHASE 1 ESA
2300 RED HILL AVENUE
SANTA ANA, CALIFORNIA

JOB NUMBER:
185804220

DRAWN BY:
STA

CHECKED BY:
DM

APPROVED BY:
DM

PROPERTY MAP WITH SAMPLE
LOCATIONS

FIGURE:

2

DATE:
07/10/18

No warranty is made by Stantec Consulting Services Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

Table 1
Summary of Soil Analytical Results - VOCs
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Sample ID ⁽¹⁾	Sampling Date	Sampling Depth ⁽²⁾	TPH										
			EPA 8015										
			Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Oil Range Organics (ORO)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	Methylene Chloride	Other VOCs
US EPA Residential Screening Levels or DTSC Note 3 Screening Levels (mg/kg)			82	96	2,500	0.33	1,100	5.8	550	0.59	0.94	1.8	varies
OCHCA Screening Levels (10 to 15 feet bgs)			100	1,000		see above							
Samples													
B-3-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.073	ND<varies
B-4-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	0.006	ND<varies
B-5-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.037	ND<varies
B-6-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.056	ND<varies
B-7-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	0.056	ND<varies
B-8-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-9-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-10-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.021	ND<varies
B-11-5	7/6/2018	5	ND<1.0	77	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-12-15	7/6/2018	15	1.8	190	75	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.020	ND<varies
B-13-10	7/6/2018	10	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-13-15	7/6/2018	15	170	430	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.035	ND<varies
B-14-15	7/6/2018	15	ND<1.0	110	170	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-15-15	7/6/2018	15	5.6	98	24	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.110	ND<varies

NOTES:

All concentrations are reported in mg/Kg

(1) Refer to Figure 2 for sampling locations

(2) Sampling depth is reported as feet below ground surface

< - Indicates the concentration was not detected above the laboratory method report limit.

BOLD - Indicates the concentration is above the laboratory reporting limit

Indicates the reported concentration exceed both the US EPA RSLs and OCHCA Screening Levels

Indicates the reported concentration exceeds the US EPA Residential RSLs

ABBREVIATIONS:

VOC - Volatile Organic Compounds

mg/Kg - milligrams per kilogram

ND - Non Detect

Table 2
Summary of Soil Vapor Analytical Results - VOCs
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Sample ID	Purge Volume ⁽²⁾	Sampling Date	Sampling Depth ⁽¹⁾	VOCs (ug/m ³)										
				8260B ⁽³⁾										
				TPHg (C4-C12)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	1,1-DCA	Styrene	4-Isopropyltoluene	Other VOCs
DTSC HERO Note 3 or EPA RSLs for Residential Land Use (µg/m ³) ⁽⁴⁾				31,000	97	310,000	1,100	100,000	460	480	1,800	940,000	NE	varies
Samples														
B-1-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-2-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-3-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	ND<50	370	340	ND<50	ND<50	ND<50	ND<50	ND<varies
B-4-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	190	590	340	ND<50	ND<50	ND<50	ND<50	ND<varies
B-5-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	180	590	370	ND<50	ND<50	ND<50	ND<50	ND<varies
B-6-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	30	ND<25	ND<varies
B-7-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	190	630	ND<50	ND<50	ND<50	ND<50	ND<50	ND<varies
B-8-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	90	ND<25	220	ND<25	ND<25	ND<varies
B-8-5DUP	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	100	ND<25	310	ND<25	ND<25	ND<varies
B-9-5 ⁽⁵⁾	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-10-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-11-5 ⁽⁵⁾	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-12-5	3	7/6/2018	5	ND<5,000	ND<18	70	ND<25	ND<25	50	ND<25	ND<25	ND<25	ND<25	ND<varies
B-12-15	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-13-5	3	7/6/2018	5	ND<5,000	ND<18	90	ND<25	60	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-13-15	3	7/6/2018	15	15,100	ND<18	ND<25	ND<25	220	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-14-5	3	7/6/2018	5	ND<5,000	ND<18	200	50	260	ND<25	ND<25	ND<25	30	80	ND<varies
B-14-15	3	7/6/2018	15	ND<5,000	ND<18	70	ND<25	120	41	ND<25	ND<25	ND<25	60	ND<varies
B-15-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-15-15	3	7/6/2018	15	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies

NOTES:

- (1) Sample depth is reported as feet below ground surface
- (2) A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.
- (3) Concentrations reported in micrograms per cubic meter (ug/m³) and analyzed by GC/MS, EPA Method 8260B
- (4) DTSC HERO NOTE 3 or Environmental Protection Agency Regional Screening Levels for Commerical/ Industrial Soil Vapor, updated June 2015 (with an attenuation factor of 0.001)
- (5) Due to access limitations related to the size of the direct push rig, the vapor probe was installed using a hand auger and a 2-hour equilibration period prior to vapor sample collection

All vapor probes were installed in borings pushed directly from surface with the exception of B-9 and B-11, as noted above.

ND< - Indicates the concentration was not detected above the listed laboratory reporting limit

ABBREVIATIONS:

VOCs - Volatile Organic Compounds

REP - Replicate sample TCE - trichloroethene F11 - Trichlorofluoromethane

NA - Not Available PCE - tetrachloroethene TMB - Trimethylbenzene

BOLD - Indicates the concentration is above the laboratory reporting level

Table 3
Summary of Soil Analytical Results - Pesticides
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Location	Depth ⁽¹⁾	Date	Pesticides (EPA Test Method 8081A)						
			4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT Compounds	Dieldrin	Toxaphene	Other OCPs
Screening Levels for residential soil (mg/Kg) ⁽²⁾			2.3	2.0	1.9	NE	0.034	0.49	varies
CA Hazardous Waste Levels (mg/Kg)			1.0	1.0	1.0	1.0	8.0	5.0	varies
Samples									
HA-1-1	1	7/5/2018	ND<0.004	0.069	ND<0.004	0.069	ND<0.004	ND<0.100	ND<varies
HA-2-1	1	7/5/2018	ND<0.004	0.034	0.0041	0.038	ND<0.004	ND<0.100	ND<varies
HA-3-1	1	7/6/2018	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.050	ND<varies
HA-4-1	1	7/5/2018	ND<0.002	0.019	ND<0.002	0.019	ND<0.100	ND<2.00	ND<varies
B-5-1	1	7/6/2018	0.0025	0.031	ND<0.002	0.034	0.003	ND<0.099	ND<varies
B-9-1	1	7/6/2018	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.050	ND<varies

NOTES:

(1) Sample depth is reported as feet below ground surface

(2) Screening level value is determined by the more conservative value from the California DTSC HERO Note 3 or USEPA RSLs.

All concentrations reported in milligrams of metal per kilogram of soil (mg/kg)

< - Indicates the concentration was not detected above the laboratory method reporting limit.

BOLD - Indicates the concentration is above the laboratory reporting level

ABBREVIATIONS:

DTSC - Department of Toxic Substances Control

HERO - Human and Ecological Risk Office

ND - Not detected

NE - Not established

USEPA RSL - United States Environmental Protection Agency
Regional Screening Levels, residential use

Table 4
Summary of Soil Analytical Results - Arsenic & Lead
2300 Red Hill Avenue
Santa Ana, California

Stantec Project No.: 185804220

Sample ID ⁽¹⁾	Sampling Date	Sampling Depth (ft)	Metals (mg/kg)	
			EPA 6010B ⁽²⁾	
			Arsenic	Lead
USEPA RSLs, Residential Use (mg/kg)			0.68	80
California Background Levels (mg/kg)			0.6-11.0	12.4 - 97.1
Samples				
HA-1-1	7/5/2018	1	4.3	7.5
HA-2-1	7/5/2018	1	4.7	6.5
HA-3-1	7/6/2018	1	4.0	6.1
HA-4-1	7/5/2018	1	4.6	6.5
HA-5-1	7/5/2018	1	8.3	13
HA-6-1	7/5/2018	1	4.6	6.7
HA-7-1	7/5/2018	1	5.4	5.6
B-5-1	7/6/2018	1	3.3	4.4
B-9-1	7/6/2018	1	2.0	1.1

NOTES:

(1) Refer to Figure 2 for sampling locations

(2) Concentrations reported in milligrams per kilogram (mg/kg), EPA Test Method 6010B

ND< - Indicates the concentration was not detected above the laboratory method reporting limit.

-- indicates the sample was not analyzed

BOLD - Indicates the concentration is above the laboratory reporting level

ABBREVIATIONS:

USEPA RSLs - United States Environmental Protection Agency Regional Screening Levels for Residential