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## SUPPLEMENTAL SUBSURFACE INVESTIGATION REPORT



HIGHWAY 36, HYDESVILLE, CALIFORNIA  
Prepared For:

C2 Energy Capital  
North Coast Highway Solar 1, LLC  
North Coast Highway Solar 2, LLC  
CA Marinwood Solar, LLC

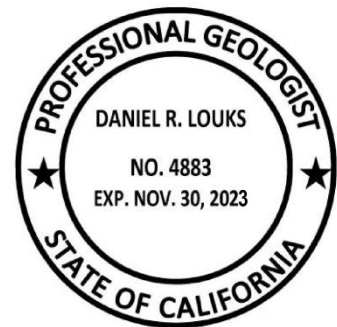
Hillmann Project Number C3-8302

April 5, 2022

Written By:  
Hillmann Consulting, LLC

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Dan Louks  
Professional Geologist 4883



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**Your Property. Our Priority.**

1745 W. Orangewood Avenue, Suite 201, Orange, CA 92868  
Telephone (714) 634-9500 Fax: (714) 634-9507 Toll free: (800) 232-4326  
[www.HillmannConsulting.com](http://www.HillmannConsulting.com)



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April 5, 2022

C2 Energy Capital  
North Coast Highway Solar 1, LLC  
North Coast Highway Solar 2, LLC  
CA Marinwood Solar, LLC

c/o Mr. Rafik Albert  
EPD Solutions, Inc  
2 Park Plaza  
Irvine, CA 93010

**RE: Supplemental Subsurface Investigation Report**  
20-034 North Coast Highway Solar  
CA Highway 36  
Hydesville, CA 10065  
Hillmann Project Number: C3-8302

Dear Mr. Albert:

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

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

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

Very Truly Yours,  
Hillmann Consulting, LLC

Brandon Clements  
Partner; Western Regional Director

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## 1.0 INTRODUCTION / BACKGROUND

Hillmann Consulting, LLC (Hillmann) conducted a Supplemental Subsurface Investigation at the agricultural Property known as 20-034 North Coast Highway Solar, located at Highway 36, Hydesville, California. The Property is currently agricultural land that has been in use since the 1940s. The site is being considered for redevelopment as a solar farm. The site location and its vicinity are indicated on **Figure 1**.

In January 2021, Hillmann completed a Phase I Environmental Site Assessment at the Property. The active site use for agricultural purposes was identified as a potential environmental concern that justified preliminary soil sampling for organo-chlorine pesticides (OCP). Hillmann completed a shallow soil sampling program and tested the soil for OCP and heavy metals. Results indicated none of the samples had concentrations of contaminants above current commercial screening levels. In addition, records indicate that the west-adjointing site located at 1576 CA-Highway 36, was formerly occupied by Eel River Lumber Products Mill C, that maintained a 550-gallon underground storage tank (UST) that was removed in 1987. The former saw mill operation used gasoline, diesel, and VOCs and was identified as a potential off-site concern.

Based on these results, a Limited Phase II Subsurface Investigation was conducted in September 2021 that included soil gas sampling in targeted locations near the off-site former UST. The results indicated no detectable concentrations of VOC in soil gas. As a supplement to this work, sampling of groundwater was requested by the Client. This supplemental report includes all data related to the off-site former UST investigation including the soil gas and groundwater sampling results.

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 investigation included installation of three soil gas sampling probes and two groundwater borings at the site. This investigation was not intended to meet the more stringent requirements of a regulatory driven assessment.

## 2.0 GEOLOGY/HYDROGEOLOGY

Based on the drilling logs, the sediments beneath the site consist primarily of sandy silt and silty sand from near surface to 8 feet below surface grade. The deeper sediments consisted of silty clay with trace sand from 20 to 35 feet below grade, the maximum depth of exploration. Groundwater was encountered at about 25-30 feet below grade and was sampled as requested. Descriptions of the sediments encountered are presented in the drilling logs (**Appendix C**).

## 3.0 SITE INVESTIGATION

### 3.1 Soil Gas Sampling

On September 11, 2021, Hillmann installed three soil gas sampling probes (SG1-SG3) along the northwest portion of the site to total depths ranging from 7-8 feet below grade. The probes were installed using hand auger tools. The locations of the probes are indicated on **Figure 1**.

The soil gas sampling 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 each vapor implant was backfilled with approximately 1 foot of screen-washed #3 sand. Six inches of dry bentonite was placed immediately above the sand pack, followed by one-foot of bentonite that was hydrated during placement. The bentonite was further sealed with hydrated bentonite and neat cement to grade 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 approximately 24 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 isopropyl alcohol 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. Each probe was 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 soil gas volumes through the system, vapor samples were collected from the probes on September 12, 2021. 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 samples were for VOC using EPA Method 8260B by A&R Laboratories of Ontario, California.

Results from soil gas sampling indicated none of the samples had detectable concentrations of VOC. These results are summarized in **Table 1**. The laboratory report from soil gas sampling is included in **Appendix B**.

### 3.2 Groundwater Sampling

On March 29, 2022, Hillmann returned to the site to obtain groundwater samples as requested. A hollow stem auger was utilized to drill two groundwater borings (HB1 and HB2) to depths of 35-45 feet below grade. During drilling, soil samples were obtained at select depths to determine if groundwater was present. When saturated conditions were encountered, drilling was terminated and the borehole was allowed to equilibrate for about 30 minutes. Grab

groundwater samples were obtained from each boring using a clean acrylic bailer and were laboratory analyzed for petroleum hydrocarbons and VOC.

Results from groundwater sampling indicated neither groundwater sample had detectable concentrations of petroleum hydrocarbons or VOC. These results are summarized in **Table 2**. The laboratory report from groundwater sampling is included in **Appendix B**.

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

The subject site is active agricultural land that is being considered for a solar farm development. Previous testing of the soil for OCP and heavy metals indicated no significant or actionable concentrations that might impact the development. However, the site lies in close proximity to a site with a known UST case, which could potentially contaminate the Subject Property. Accordingly, a subsurface investigation was conducted to gauge possible impacts from off-site contaminant sources.

In September 2021, Hillmann conducted an independent subsurface investigation at the site that included installation of three soil gas probes to gauge possible subsurface contamination in targeted areas of the site near the former UST case. Results indicated none of the soil gas samples had detectable concentrations of VOC. As requested, Hillmann returned to the site in March 2022 and installed two borings drilled into groundwater for sampling. Results from laboratory analysis indicated neither groundwater sample had detectable concentrations of petroleum hydrocarbons or VOC. Based on these results, we recommend no further sampling at the site.

## **5.0 LIMITATIONS**

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

**TABLE 1**  
**Summary of Soil Gas Sampling Results (ug/L)**

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	TCE	PCE	Other VOC
Sampled September 12, 2021							
SG1-7	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND
SG2-8	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND
SG3-8	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND
<b>Commercial RSL</b> <b>AF=0.03</b>	<b>0.42*</b>	<b>1300*</b>	<b>4.9</b>	<b>440</b>	<b>3.0</b>	<b>2.0*</b>	<b>--</b>
<b>Commercial RSL</b> <b>AF=0.001</b>	<b>0.015*</b>	<b>43*</b>	<b>0.16</b>	<b>14.7</b>	<b>0.1</b>	<b>0.067*</b>	<b>--</b>

*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. \*-Values modified for California by DTSC HERO Note 3. Screening levels for soil gas calculated using indoor air values and attenuation factor provided by EPA (0.03) and DTSC (0.001). Please refer to lab report for complete results.*

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

Sample ID	VOC	TPHg C4-C12	TPHd C13-C22	TPH-Oil C23-C40
HB1-GW	ND	ND<50	ND<400	ND<800
HB2-GW	ND	ND<50	ND<400	ND<800

*Notes: ND - Not Detected. Please refer to lab report for complete results.*

## SOIL GAS MONITORING DATA FORM

**PROJECT:** Agricultural Property

**LOCATION:** Highway 36, Hydesville, California

**DATE:** September 12, 2021

	VAPOR PROBE INFO							
PROBE ID	SG1	SG2	SG3					
PROBE DEPTH (ft)	7	8	8					
	EXTRACTION DATA							
Applied Vacuum (in. WC)	<5	<5	<5					
FLOW (L/min)	0.2	0.2	0.2					
Pore Volumes (borehole - sand pack)	3	3	3					
	MONITORING DATA							
OXYGEN (%)	18.0	18.5	18.8					
CARBON DIOXIDE (%)	4.0	3.65	3.10					
VOC by PID (ppm)	0.0	0.0	0.0					

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

**REMARKS:** \_\_\_\_\_

\_\_\_\_\_ **SAMPLED BY:** NH \_\_\_\_\_



## FIGURES



**HILLMANN**  
CONSULTING

**Figure 1 Site Diagram**

CA Highway- 36  
Hydesville, California

N



SCALE: (NOT TO SCALE)

PROJECT No.: C3-8302

# APPENDIX A

## Site Photos





SG1



SG2



SG3





Drilling HB1



Drilling HB2



Water Sampling



Grouted Boring

## APPENDIX B

### Laboratory Report



## A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C  
ONTARIO, CA 91761

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

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### CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

*Ken Zheng*

Ken Zheng, President  
09/16/2021 13:56:06

Laboratory Job No. (Certificate of Analysis No.)

2109-00077

Project Name / No.

FARMLAND

Dates Sampled (from/to)

09/12/21 To 09/12/21

Dates Received (from/to)

09/13/21 To 09/13/21

Dates Reported (from/to)

09/16/21 To 9/16/2021

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

2109-00077

**HILLMANN CONSULTING**  
**DAN LOUKS**  
**1745 W. ORANGEWOOD AVE**  
**STE#110**  
**ORANGE, CA**  
**Project: FARMLAND**

Date Reported 09/16/21  
Date Received 09/13/21  
Invoice No. 92821  
Cust # G073  
Permit Number  
Customer P.O.

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech	
Sample: 001 <b>SG1-7</b>							Date & Time Sampled:		09/12/21	@	8:05
Sample Matrix: <b>Soil Vapor</b>											
[VOCs by GCMS]											
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN	
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	09/13/21	5:00	JEN	
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN	
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN	
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN	
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	09/13/21	5:00	JEN	
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN	
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN	
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN	

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





# A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C

ONTARIO, CA 91761

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

## CERTIFICATE OF ANALYSIS

2109-00077

Date Reported 09/16/21

Date Received 09/13/21

Invoice No. 92821

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE  
STE#110  
ORANGE, CA  
**Project: FARMLAND**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 <b>SG1-7</b>					Date & Time Sampled: 09/12/21 @ 8:05					
Sample Matrix: <b>Soil Vapor</b>										
.....continued										
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	09/13/21	5:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	09/13/21	5:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN

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## CERTIFICATE OF ANALYSIS

2109-00077

Date Reported 09/16/21

Date Received 09/13/21

Invoice No. 92821

Cust # G073

Permit Number

Customer P.O.

HILLMANN CONSULTING  
DAN LOUKS  
1745 W. ORANGEWOOD AVE  
STE#110  
ORANGE, CA  
**Project: FARMLAND**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 SG1-7					Date & Time Sampled:			09/12/21	@	8:05
Sample Matrix: Soil Vapor										
.....continued										
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	09/13/21	5:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	09/13/21	5:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	83		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Toluene-D8	94		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Bromofluorobenzene	86		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Sample: 002 SG2-8										
Sample Matrix: Soil Vapor					Date & Time Sampled:			09/12/21	@	8:20
[VOCs by GCMS]										
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	09/13/21	5:00	JEN
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN

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## CERTIFICATE OF ANALYSIS

2109-00077

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**DAN LOUKS**  
**1745 W. ORANGEWOOD AVE**  
**STE#110**  
**ORANGE, CA**  
**Project: FARMLAND**

Date Reported 09/16/21  
Date Received 09/13/21  
Invoice No. 92821  
Cust # G073  
Permit Number  
Customer P.O.

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 <b>SG2-8</b>					Date & Time Sampled: 09/12/21 @ 8:20					
Sample Matrix: <b>Soil Vapor</b>										
.....continued										
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	09/13/21	5:00	JEN
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN

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**DAN LOUKS**  
**1745 W. ORANGEWOOD AVE**  
**STE#110**  
**ORANGE, CA**  
**Project: FARMLAND**

Date Reported 09/16/21  
Date Received 09/13/21  
Invoice No. 92821  
Cust # G073  
Permit Number  
Customer P.O.

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 <b>SG2-8</b>					Date & Time Sampled: 09/12/21 @ 8:20					
Sample Matrix: <b>Soil Vapor</b>										
.....continued										
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	09/13/21	5:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	09/13/21	5:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	09/13/21	5:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	09/13/21	5:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	86		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Toluene-D8	94		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN

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**ORANGE, CA**  
**Project: FARMLAND**

Date Reported 09/16/21  
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Cust # G073  
Permit Number  
Customer P.O.

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 SG2-8					Date & Time Sampled:			09/12/21	@	8:20
Sample Matrix: Soil Vapor										
.....continued										
Bromofluorobenzene	85		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Sample: 003 SG3-8					Date & Time Sampled:			09/12/21	@	8:35
Sample Matrix: Soil Vapor										
[VOCs by GCMS]										
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	09/13/21	5:00	JEN
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	09/13/21	5:00	JEN
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN

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**ORANGE, CA**  
**Project: FARMLAND**

Date Reported 09/16/21  
Date Received 09/13/21  
Invoice No. 92821  
Cust # G073  
Permit Number  
Customer P.O.

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 <b>SG3-8</b> Sample Matrix: <b>Soil Vapor</b> .....continued					Date & Time Sampled: 09/12/21 @ 8:35					
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	09/13/21	5:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	09/13/21	5:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN

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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FDA#	2030513
LA City#	10261
ELAP#s	2789
	2790
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## CERTIFICATE OF ANALYSIS

2109-00077

Date Reported 09/16/21

Date Received 09/13/21

Invoice No. 92821

Cust # G073

Permit Number

Customer P.O.

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

Project: FARMLAND

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 <b>SG3-8</b>					Date & Time Sampled: 09/12/21 @ 8:35					
Sample Matrix: <b>Soil Vapor</b>										
.....continued										
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	09/13/21	5:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	09/13/21	5:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	09/13/21	5:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	09/13/21	5:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	09/13/21	5:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	87		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Toluene-D8	94		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN
Bromofluorobenzene	83		%REC	EPA 8260B			70-130	09/13/21	5:00	JEN

Respectfully Submitted:

Ken Zheng - President



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### QUALIFIERS

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

### ABBREVIATIONS

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

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

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





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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING  
ORANGE, CA

2109-00077

Date Reported	09/16/2021
Date Received	09/13/2021
Date Sampled	09/12/2021
Invoice No.	92821
Customer #	G073
Customer P.O.	

Project: FARMLAND

Method # EPA 8260B

QC Reference # 98397

Date Analyzed: 9/13/2021

Technician: JEN

Samples 001 002 003

### Results

	LCS %REC	LCS %DUP	LCS %RPD
--	----------	----------	----------

1,1-Dichloroethene	90	75	15
Benzene	110	85	25
Chlorobenzene	115	90	25
Toluene	115	95	20
Trichloroethene	105	85	20

### Control Ranges

LCS %REC	LCS %RPD
----------	----------

70 - 130	0 - 25
70 - 130	0 - 25
70 - 130	0 - 25
70 - 130	0 - 25
70 - 130	0 - 25



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## QUALITY CONTROL DATA REPORT

2109-00077

HILLMANN CONSULTING

Date Reported

09/16/2021

Date Received

09/13/2021

Date Sampled

09/12/2021

### Project: FARMLAND

#### Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
98397	Acetone	<0.50		µg/L	0.50		Isopropylbenzene	<0.050		µg/L	0.050
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		4-Isopropyltoluene	<0.050		µg/L	0.050
	Benzene	<0.024		µg/L	0.024		Methylene Chloride	<0.05		µg/L	0.05
	Bromobenzene	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromochloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromodichloromethane	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromoform	<0.050		µg/L	0.050		n-Propylbenzene	<0.050		µg/L	0.050
	Bromomethane	<0.050		µg/L	0.050		Styrene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	n-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	sec-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		1,2,3-Trichloropropane	<0.020		µg/L	0.020
	Chloromethane	<0.050		µg/L	0.050		Trichlorofluoromethane	<0.050		µg/L	0.050
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	Dibromochloromethane	<0.050		µg/L	0.050		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020		Vinyl Chloride	<0.008		µg/L	0.008
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020		m,p-Xylenes	<0.10		µg/L	0.10
	Dibromomethane	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<0.50		µg/L	0.50
	1,3-Dichlorobenzene	<0.050		µg/L	0.050						
	1,4-Dichlorobenzene	<0.050		µg/L	0.050						
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						
	Hexachlorobutadiene	<0.050		µg/L	0.050						
	2-Hexanone	<0.50		µg/L	0.50						



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### QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

**2109-00077**

Date Reported 09/16/2021

Date Received 09/13/2021

Date Sampled 09/12/2021

**Project: FARMLAND**

*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](mailto: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=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
HS=H<sub>2</sub>SO<sub>4</sub>

\* Sample Container Types:  
T=Tedlar Air Bag  
G=Glass Container  
ST= Steel Tube

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

E= EnCore



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## CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

*Ken Zheng*

Ken Zheng, President  
04/04/2022 17:28:43

Laboratory Job No. (Certificate of Analysis No.)

2204-00004

Project Name / No.

FARM / 20-036 N. COAST HWY., HYDESVILLE

Dates Sampled (from/to)

03/29/22 To 03/29/22

Dates Received (from/to)

04/01/22 To 04/01/22

Dates Reported (from/to)

04/04/22 To 4/4/2022

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

2204-00004

Date Reported 04/04/22  
 Date Received 04/01/22  
 Invoice No. 94585  
 Cust # G073  
 Permit Number  
 Customer P.O.

HILLMANN CONSULTING  
 BRANDON CLEMENTS  
 1745 W. ORANGEWOOD AVE.  
 SUITE 110  
 ORANGE, CA 92868

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 HB1-GW					Date & Time Sampled:		03/29/22 @ 12:30	
Sample Matrix: Aqueous								
[TPH Gasoline]								
Gasoline (C4-C12)	<50		ug/L	EPA 8015M	1.0	50	04/04/22	IG
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3510C	1.0		04/04/22	IG
C13-C22	<0.40		mg/L	EPA 8015M	1.0	0.40	04/04/22	IG
C23-C40	<0.80		mg/L	EPA 8015M	1.0	0.80	04/04/22	IG
[Surrogate]								
o-Terphenyl (OTP)	110		%REC	EPA 8015M		50-150	04/04/22	IG
[VOCs by GCMS]								
Acetone	<100		µg/L	EPA 8260B	1.0	100	04/04/22	IG
t-Amyl Methyl Ether (TAME)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Benzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromochloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromodichloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromoform	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromomethane	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
t-Butanol (TBA)	<25		µg/L	EPA 8260B	1.0	25	04/04/22	IG
2-Butanone (MEK)	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
n-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
sec-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
tert-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Carbon Disulfide	<10		µg/L	EPA 8260B	1.0	10	04/04/22	IG
Carbon Tetrachloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloroform	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloromethane	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
2-Chlorotoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Chlorotoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Dibromochloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dibromoethane (EDB)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG

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## CERTIFICATE OF ANALYSIS

2204-00004

Date Reported 04/04/22  
 Date Received 04/01/22  
 Invoice No. 94585  
 Cust # G073  
 Permit Number  
 Customer P.O.

HILLMANN CONSULTING  
 BRANDON CLEMENTS  
 1745 W. ORANGEWOOD AVE.  
 SUITE 110  
 ORANGE, CA 92868

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HB1-GW</b>					Date & Time Sampled:		03/29/22 @ 12:30	
Sample Matrix: <b>Aqueous</b>								
.....continued								
1,2-Dibromo-3-Chloropropane	<10		µg/L	EPA 8260B	1.0	10	04/04/22	IG
Dibromomethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,4-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Dichlorodifluoromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
cis-1,2-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
trans-1,2-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
2,2-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
cis-1,3-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
trans-1,3-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Diisopropyl Ether (DIPE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Ethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Ethyl-t-Butyl Ether (EtBE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Hexachlorobutadiene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
2-Hexanone	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
Isopropylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Isopropyltoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Methylene Chloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Methyl-2-Pentanone (MIBK)	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
Methyl-t-butyl Ether (MtBE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Naphthalene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
n-Propylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Styrene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,1,2-Tetrachloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG

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 SUITE 110  
 ORANGE, CA 92868

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 <b>HB1-GW</b>					Date & Time Sampled:		03/29/22 @ 12:30	
Sample Matrix: <b>Aqueous</b>								
.....continued								
1,1,2,2-Tetrachloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Tetrachloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Toluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,3-Trichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,4-Trichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,1-Trichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,2-Trichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Trichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,3-Trichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Trichlorofluoromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Trichlorotrifluoroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,4-Trimethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3,5-Trimethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Vinyl Chloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
m,p-Xylenes	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
o-Xylene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
[VOC Surrogates]								
Dibromofluoromethane	77		%REC	EPA 8260B		70-130	04/04/22	IG
Toluene-D8	95		%REC	EPA 8260B		70-130	04/04/22	IG
Bromofluorobenzene	87		%REC	EPA 8260B		70-130	04/04/22	IG
Sample: 002 <b>HB2-GW</b>					Date & Time Sampled:		03/29/22 @ 16:00	
Sample Matrix: <b>Aqueous</b>								
[TPH Gasoline]								
Gasoline (C4-C12)	<50		ug/L	EPA 8015M	1.0	50	04/04/22	IG
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3510C	1.0		04/04/22	IG
C13-C22	<0.40		mg/L	EPA 8015M	1.0	0.40	04/04/22	IG
C23-C40	<0.80		mg/L	EPA 8015M	1.0	0.80	04/04/22	IG
[Surrogate]								
o-Terphenyl (OTP)	100		%REC	EPA 8015M		50-150	04/04/22	IG

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 ORANGE, CA 92868

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HB2-GW</b>							Date & Time Sampled: 03/29/22 @ 16:00	
Sample Matrix: <b>Aqueous</b>								
.....continued								
[VOCs by GCMS]								
Acetone	<100		µg/L	EPA 8260B	1.0	100	04/04/22	IG
t-Amyl Methyl Ether (TAME)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Benzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromochloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromodichloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromoform	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Bromomethane	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
t-Butanol (TBA)	<25		µg/L	EPA 8260B	1.0	25	04/04/22	IG
2-Butanone (MEK)	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
n-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
sec-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
tert-Butylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Carbon Disulfide	<10		µg/L	EPA 8260B	1.0	10	04/04/22	IG
Carbon Tetrachloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloroform	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Chloromethane	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
2-Chlorotoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Chlorotoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Dibromochloromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dibromoethane (EDB)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dibromo-3-Chloropropane	<10		µg/L	EPA 8260B	1.0	10	04/04/22	IG
Dibromomethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,4-Dichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Dichlorodifluoromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG

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ORANGE, CA 92868

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HB2-GW</b>					Date & Time Sampled:		03/29/22 @	16:00
Sample Matrix: <b>Aqueous</b>								
.....continued								
1,2-Dichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
cis-1,2-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
trans-1,2-Dichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
2,2-Dichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
cis-1,3-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
trans-1,3-Dichloropropene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Diisopropyl Ether (DIPE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Ethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Ethyl-t-Butyl Ether (EtBE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Hexachlorobutadiene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
2-Hexanone	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
Isopropylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Isopropyltoluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Methylene Chloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
4-Methyl-2-Pentanone (MIBK)	<12.5		µg/L	EPA 8260B	1.0	12.5	04/04/22	IG
Methyl-t-butyl Ether (MtBE)	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Naphthalene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
n-Propylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Styrene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,1,2-Tetrachloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,2,2-Tetrachloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Tetrachloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Toluene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,3-Trichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,4-Trichlorobenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,1-Trichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,1,2-Trichloroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG

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Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 <b>HB2-GW</b> Sample Matrix: <b>Aqueous</b> .....continued					Date & Time Sampled:		03/29/22 @ 16:00	
Trichloroethene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,3-Trichloropropane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Trichlorofluoromethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Trichlorotrifluoroethane	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,2,4-Trimethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
1,3,5-Trimethylbenzene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
Vinyl Chloride	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
m,p-Xylenes	<2.0		µg/L	EPA 8260B	1.0	2.0	04/04/22	IG
o-Xylene	<1.0		µg/L	EPA 8260B	1.0	1.0	04/04/22	IG
[VOC Surrogates]								
Dibromofluoromethane	75		%REC	EPA 8260B		70-130	04/04/22	IG
Toluene-D8	93		%REC	EPA 8260B		70-130	04/04/22	IG
Bromofluorobenzene	86		%REC	EPA 8260B		70-130	04/04/22	IG

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



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## QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING  
 ORANGE, CA 92868

2204-00004

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 Customer P.O.

Project: FARM / 20-036 N. COAST HWY., HYDESVILLE

Method # EPA 8015M			
QC Reference #	102050	Date Analyzed: 4/4/2022	Technician: IG
Samples	001 002		
Results			
	LCS %REC	LCS %DUP	LCS %RPD
C13-C22	100	100	0
o-Terphenyl (OTP)			130
Control Ranges			
	LCS %REC	LCS %RPD	BLKSRR%REC
	70 - 130	0 - 25	50 - 150
QC Reference #	102061	Date Analyzed: 4/4/2022	Technician: IG
Samples	001 002		
Results			
	LCS %REC	LCS %DUP	LCS %RPD
Gasoline (C4-C12)	82	76	6
Control Ranges			
	LCS %REC	LCS %RPD	
	70 - 130	0 - 25	
Method # EPA 8260B			
QC Reference #	102060	Date Analyzed: 4/4/2022	Technician: IG
Samples	001 002		
Results			
	LCS %REC	LCS %DUP	LCS %RPD
1,1-Dichloroethene	74	71	4.1
Benzene	94	87	7
Bromofluorobenzene			95
Chlorobenzene	110	100	10
Dibromofluoromethan			90
Toluene	120	120	0
Toluene-D8			96
Trichloroethene	100	100	0
Control Ranges			
	LCS %REC	LCS %RPD	BLKSRR%REC
	50 - 150	0 - 30	
	50 - 150	0 - 30	
	50 - 150	0 - 30	50 - 150
	50 - 150	0 - 30	50 - 150
	50 - 150	0 - 30	50 - 150
	50 - 150	0 - 30	

No method blank results were above reporting limit

Respectfully Submitted:

*Ken Zheng*

Ken Zheng - President



## CHAIN OF CUSTODY

A &amp; R Work Order #:

2204-4

Page 1 of 1

[illegible]





## Sample Acceptance Checklist

CLIENT: Hillmann Consult.

WORK ORDER NUMBER: 2204-4

**Temperature:**(Criteria:0.0°C-6.0°C)

Sample Temp.(w/CF) °C(w/CF) 3.9°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: [Signature]

Date: 4.1.22

## APPENDIX C

### Drilling Logs

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** SG1  
**PROJECT** Agricultural Property **OWNER** \_\_\_\_\_  
**LOCATION** Highway 36 Hydesville, CA **PROJECT NUMBER** \_\_\_\_\_  
**DATE DRILLED** September 11, 2021 **TOTAL DEPTH OF HOLE** 7 Feet  
**SURFACE ELEVATION** \_\_\_\_\_ **DEPTH TO WATER** \_\_\_\_\_  
**SCREEN: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **SLOT SIZE** \_\_\_\_\_  
**CASING: DIA.** \_\_\_\_\_ **LENGTH** \_\_\_\_\_ **TYPE** \_\_\_\_\_  
**DRILLING COMPANY** Hillmann **DRILL METHOD** Hand Auger  
**DRILLER** Neil/Dan **LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0-3						ML	Sandy SILT; gray, very fine sand, low plasticity, some clay, loose, no odor.
3-7						SM/CL	<p>Silty SAND; reddish brown, very fine sand, loose, no odor. Changes to Silty CLAY; brown, medium plasticity, moist, trace fine sand at 7 feet.</p> <p>Install Probe SG1 at 7 feet below grade. Seal with bentonite and neat cement to surface.</p>



## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** SG2

**PROJECT** Agricultural Property

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

**LOCATION** Highway 36 Hydesville, CA

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

**DATE DRILLED** September 11, 2021

**TOTAL DEPTH OF HOLE** 8 Feet

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

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

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

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

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

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

**DRILLING COMPANY** Hillmann

**DRILL METHOD** Hand Auger

**DRILLER** Neil/Dan

**LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0-8						ML	<p>Sandy SILT; brown, very fine sand, low plasticity, some clay, no odor.</p> <p>Install Probe SG2 at 8 feet below grade. Seal with bentonite and neat cement to surface.</p>

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** SG3

**PROJECT** Agricultural Property

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

**LOCATION** Highway 36 Hydesville, CA

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

**DATE DRILLED** September 11, 2021

**TOTAL DEPTH OF HOLE** 8 Feet

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

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

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

**LENGTH** \_\_\_\_\_

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

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

**LENGTH** \_\_\_\_\_

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

**DRILLING COMPANY** Hillmann

**DRILL METHOD** Hand Auger

**DRILLER** Neil/Dan

**LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
0-8						ML	<p>Sandy SILT; brown, very fine sand, low plasticity, some clay, no odor.</p> <p>Install Probe SG3 at 8 feet below grade. Seal with bentonite and neat cement to surface.</p>

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB1

**PROJECT** Agricultural Property

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

**LOCATION** Highway 36 Hydesville, CA

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

**DATE DRILLED** March 29, 2022

**TOTAL DEPTH OF HOLE** 45 Feet

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

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

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

**LENGTH** \_\_\_\_\_

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

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

**LENGTH** \_\_\_\_\_

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

**DRILLING COMPANY** Clear Heart

**DRILL METHOD** Hollow Stem Auger

**DRILLER** Ricky

**LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
30				HB1-30		CL	Silty CLAY; blue-gray, medium plasticity, trace very fine to medium sand, moist, soft, no odor.
35				HB1-35		CL	Silty CLAY; blue-gray, medium plasticity, trace very fine to medium sand, very moist, soft, no odor.
45				HB1-45		CL	Silty CLAY; blue-gray, low plasticity, trace very fine sand, wet, no odor.  Let borehole equalize for 30 minutes. Collect groundwater sample at 37 feet bgs. Seal borehole with bentonite-neat cement grout to surface.

## DRILL/LITHOLOGIC LOG

**BORING/WELL NUMBER** HB2

**PROJECT** Agricultural Property

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

**LOCATION** Highway 36 Hydesville, CA

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

**DATE DRILLED** March 29, 2022

**TOTAL DEPTH OF HOLE** 35 Feet

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

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

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

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

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

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

**DRILLING COMPANY** Clear Heart

**DRILL METHOD** Hollow Stem Auger

**DRILLER** Ricky

**LOG BY** Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
20				HB2-20		CL	Silty CLAY; light gray-brown, medium plasticity, moist, soft, no odor.
25							Wet at 25 feet.
30				HB2-30		CL	Silty CLAY; blue-gray, medium plasticity, moist, soft, no odor.
35				HB2-35		CL	Silty CLAY; blue-gray, medium plasticity, trace very fine sand, wet, no odor.  Let borehole equalize for 30 minutes. Collect groundwater sample at 30 feet bgs. Seal borehole with bentonite-neat cement grout to surface.

## APPENDIX D

### Soil Gas Monitoring Data

## SOIL GAS MONITORING DATA FORM

**PROJECT:** Agricultural Property

**LOCATION:** Highway 36, Hydesville, California

**DATE:** September 12, 2021

	VAPOR PROBE INFO							
PROBE ID	SG1	SG2	SG3					
PROBE DEPTH (ft)	7	8	8					
	EXTRACTION DATA							
Applied Vacuum (in. WC)	<5	<5	<5					
FLOW (L/min)	0.2	0.2	0.2					
Pore Volumes (borehole - sand pack)	3	3	3					
	MONITORING DATA							
OXYGEN (%)	18.0	18.5	18.8					
CARBON DIOXIDE (%)	4.0	3.65	3.10					
VOC by PID (ppm)	0.0	0.0	0.0					

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

**REMARKS:** \_\_\_\_\_

\_\_\_\_\_ **SAMPLED BY:** \_\_\_\_\_ **NH** \_\_\_\_\_



## APPENDIX E

### Well Permit



## Division of Environmental Health

100 H Street - Suite 100 - Eureka, CA 95501

Phone: 707-445-6215 - Toll Free: 800-963-9241

Fax: 707-441-5699

envhealth@co.humboldt.ca.us

### HAZARDOUS MATERIALS UNIT MONITORING WELL AND BORING PERMIT APPLICATION

Facility ID # \_\_\_\_\_

Permit # SR0002331

DO NOT WRITE ABOVE THIS LINE - FOR AGENCY USE ONLY

SITE / FACILITY NAME N/A

Proposed Work Date 12/22/21

Physical Address 2020 St Highway 36, Hydesville, CA

APN 204-081-004, and -007

PROPERTY OWNER Melinda & Phil Nyberg

Contact Name Melinda & Phil Nyberg

Email philnyberg@att.net

Mailing Address \_\_\_\_\_

Telephone \_\_\_\_\_

RESPONSIBLE PARTY / CLIENT EPD Solutions

Contact Name Rafik Albert

Email rafik@epdsolutions.com

Mailing Address 2 Park Plaza, Ste. 1120, Irvine, CA

Telephone 949-749-1182

CONSULTANT Hillmann Consulting

Contact Name Dan Louks

PG 4883

License Type and # Geologist

Email Dan@gsaengineering.net

Mailing Address 1745 W Orangewood Avenue, 201, orange, CA

Telephone 714-392-5920

DRILLER FISCH DRILLING

Contact Name CHRIS FISCH

C-57 License # 683865

Email chris@fischdrilling.com

Mailing Address 3150 Johnson Rd. Hydesville, CA 95547

Telephone 707-768-9800

INVESTIGATION

☐ Regulated Case, Case ID Number \_\_\_\_\_

☐ Geotechnical

TYPE

☒ Site Characterization / Due Diligence

☐ Other \_\_\_\_\_

WELLS AND BORINGS TO BE INSTALLED OR MODIFIED Number of Wells \_\_\_\_\_ Number of Borings 2

INSTALLATION

☐ Hollow Stem Auger

☒ Direct Push

☐ Hand Auger

☐ Ultrasonic

METHOD

☐ Cone Penetrometer

☐ Mud Rotary

☐ Air Rotary

☐ Other \_\_\_\_\_

WELL TYPE

☐ Monitoring

☐ Extraction

☐ Injection

☐ Cathodic Protection

☐ Soil Gas

☐ Piezometer

☐ Geothermal

☐ Other \_\_\_\_\_

WELLS TO BE DESTROYED Number of Wells NA

DESTRUCTION METHOD

☒ Pressure Grout

☐ Overbore

☐ Other \_\_\_\_\_

SUSPECTED CONTAMINATES Potential hydrocarbons

CONTAINMENT/DISPOSAL OF INVESTIGATION DERIVED WASTE \_\_\_\_\_

Contained in DOT drums pending characterization

Facility ID # \_\_\_\_\_

Permit # SR0002331**DO NOT WRITE ABOVE THIS LINE - FOR AGENCY USE ONLY****PERMITS WILL NOT BE PROCESSED WITHOUT THE FOLLOWING:**

- ☐ Completed application and fees, must be submitted together.
- ☐ Detailed Site Plan - overhead view.
- ☐ Well construction details - specifications of borehole, casing/screen interval, filter pack, seal and surface features.
- ☐ Lead agency workplan concurrence - required for regulated cleanup sites.
- ☐ Off-site work - encroachment permit for work in municipal right-of-way; access agreement for work on private property.

**UPON COMPLETION OF WORK:**


- ☐ Well identification number must be displayed on the well box/monument.
- ☐ State Water Well Completion Report (form DWR 188) must be submitted within 60 days of completion of work.

**CERTIFICATES OF INSURANCE:**

- A Currently effective General Liability Certificate of Insurance is on file with Humboldt County Division of Environmental Health, endorsed to include the Humboldt County Division of Environmental Health named as additional insured.
- A Currently effective Worker's Compensation Certificate of Insurance is on file with Humboldt County Division of Environmental Health, endorsed to include the Humboldt County Division of Environmental Health named as additional insured.

*I hereby agree to comply with all laws, ordinances and regulations of the County of Humboldt Division of Environmental Health (DEH) and State of California pertaining to water well construction. I acknowledge this application will become a permit only after workplan concurrence by the lead agency with regulatory jurisdiction (DEH, North Coast Regional Water Quality Control Board, Department of Toxic Substances Control / California Environmental Protection Agency). I understand this permit is not transferable and expires one hundred twenty (120) days from the date of permit approval. I will notify DEH at (707) 445-6215 Five (5) working days prior to commencing this work.*

*For well installation/destruction, I will submit a State Water Well Completion Report (form DWR 188) within 60 days of completion of work to obtain final approval of this permit.*

 \_\_\_\_\_ 12/15/2021  
Signature of C-57 Licensed driller - no proxies - blue ink only Date

If paid by Credit Card: Date and amount paid 11/24/2021 \$177 Confirmation #: 08841Q

**DO NOT WRITE BELOW THIS LINE - FOR AGENCY USE ONLY**

* FOR OFFICE USE ONLY *		
Amount Paid <input type="checkbox"/> Cash \$ <input type="checkbox"/> Check #	Receipt Number	O.P. confirmed by: JAG
FA#	SR # 0002331	IN#

PLAN APPROVED Norman Crawford DATE 12/17/2021

WORK APPROVED \_\_\_\_\_ DATE \_\_\_\_\_

**NON-TRANSFERABLE****WHEN APPROVED, THIS IS YOUR PERMIT**