



# ENSOLUM

**REVIEWED**

**By Mike Buchanan at 3:11 pm, May 10, 2024**

Review of the Florance Gas Com J No. 16A 2022 Fourth Quarter Remediation System Operation and Monitoring Report: Content Satisfactory

## 2022 Fourth Quarter – Remediation System Operation and Monitoring Report

1. Continue to operate the DPE system and conduct O&M as prescribed in this report.

2. Collect air sample and analyze per 8260 EPA Method.

3. Submit next quarterly report(s) in calendar year 2024, no later than 60 days after quarter end.

**API # 30-045-21790**  
**Incident # NCS1629854256**  
**Remediation Permit Number 3RP-364**

January 30, 2023  
Ensolum Project No. 07B2002007

Prepared for:

**New Mexico Oil Conservation Division - District III**  
**New Mexico Energy, Minerals, and Natural Resources Department**  
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## 2022 Fourth Quarter – Remediation System Operation and Monitoring Report

**Incident # NCS1629854256**  
**Remediation Permit Number 3RP-364**

**Ensolum Project No. 07B2002007**

### 1.0 INTRODUCTION

Ensolum, LLC (Ensolum), on behalf of Harvest Four Corners, LLC (Harvest), presents this *2022 Fourth Quarter - Remediation System Operation and Monitoring Report* summarizing remediation system performance during the fourth quarter of 2022 at the Florance Gas Com J No. 16A (Site; Remediation Permit Number 3RP-364, Incident # NCS1629854256). The duration of operation and monitoring activities included in this report is for the period from September 21, 2022, through January 5, 2023.

This report was prepared following the conditions of approval from the New Mexico Oil Conservation Division (NMOCD) regarding the dual-phase extraction (DPE) remediation system described in the *Remedial Assessment Report* submitted by Aptim Environmental & Infrastructure, Inc. in November 2017. Per the requirements, this report includes the following:

- A summary of remediation activities during the quarter;
- The system run time summary (90% run time required);
- The petroleum mass removal and fluid product recovery from the remediation system;
- Amount of liquid captured from the concrete trap/secondary seep tank; and
- Quarterly gas sample analysis results.

As stated in the *2018 Annual Groundwater and Remediation Update Report* submitted in June 2019, the quarterly remediation summary reports also include data and summaries from the groundwater sampling events.

### 2.0 REMEDIATION SYSTEM DESCRIPTION

The remediation system at the Site includes a DPE system which uses two high vacuum rotary claw blowers to apply vacuum to remediation wells that are connected to the blowers via subsurface piping. The extracted air, petroleum vapors, and fluids enter a vapor/liquid separator or “knock out” tank. Air and petroleum vapors are passed through the two high vacuum extraction blowers and discharged to the atmosphere via an exhaust stack. Separated liquid, which includes light non-aqueous phase liquids (LNAPL) and potentially impacted groundwater, is pumped to an above ground storage tank for storage and offsite disposal. Operation of the remediation wells is cycled through four zones, with four to six remediation wells per zone. The system layout is depicted on Figure 1. Reports summarizing remediation system operation for the previous quarters of system operation have been submitted to the NMOCD by Harvest and previous consultants.

### 3.0 SYSTEM OPERATION AND MONITORING

Regular bi-weekly system operations and maintenance activities have been performed through the fourth quarter of 2022. These site visits and monitoring events are summarized in tables enclosed at the end of this report, including the final visit of the quarter on January 5, 2023. As proposed in the previous quarterly report, remediation efforts in the fourth quarter 2022 were focused on Zone 2 and Zone 4.

### 3.1 Vapor Recovery

Remediation system runtime is listed in Table 1, with an average runtime for the fourth quarter 2022 of 99 percent (%), and a cumulative overall run time of 92%. Occasionally, system operations were interrupted for routine equipment maintenance. The system is currently operating with only one high vacuum blower, as the other is being serviced for repairs/replacement. However, the single high vacuum blower currently in operation can achieve the required vacuum and flow rates in the subsurface to accomplish soil and groundwater remediation.

Influent air samples from the DPE system were collected following different remediation zone cycling events. During the fourth quarter 2022, a total of two air samples were collected. Influent air samples were collected using a high vacuum air sampling pump on the system inlet, after the remediation zone manifold assembly, but prior to the liquid knock out tank. Samples were collected in 1-Liter Tedlar® bags and submitted to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico for analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B and total petroleum hydrocarbons (TPH) by EPA Method 8015D. One sample per quarter is also analyzed for full list of volatile organic compounds (VOCs) by EPA Method 8260B and fixed natural gas analysis including oxygen and carbon dioxide. The laboratory analytical results from the fourth quarter of 2022 are summarized in Table 2. Copies of the laboratory analytical reports for the vapor samples are provided as Appendix A.

Since remediation system startup in May 2018, the calculated total mass of BTEX removed thus far is 3,602 pounds (lbs). In the fourth quarter 2022, the calculated mass removal rate based on field and analytical results ranged from 0.008 lbs per day to 0.08 lbs per day. During the fourth quarter 2022, a total of 6 lbs of BTEX were removed through January 5, 2023. Air emission calculations and removal rates are summarized on Table 3.

### 3.2 Liquid Recovery

Total liquid recovery volumes are measured using a totalizing flow metering device. Since startup of the system on May 4, 2018, through January 5, 2023, approximately 331,893 gallons of liquid have been recovered. The impacted groundwater and recovered LNAPL are emulsified and homogenously commingled enough during extraction that product thickness is unmeasurable in the liquid recovery tank. Therefore, the estimated volume of LNAPL recovered is not measurable and not reported. Liquid recovery is summarized in Table 4.

Operational measurements including flow and vacuum rates for individual remediation wells are summarized in Table 5. Specific remediation zone observations and adjustments are also included in this table.

## 4.0 CONCRETE TRAP/SEEP MONITORING

The concrete trap collection sump and collection tank connected to the east and west seep areas was inspected for liquid recovery during the fourth quarter 2022. No observable LNAPL or additional liquids were observed in the seep collection tank. Approximately 200 gallons of water have consistently been observed in the seep collection tank, likely a result of precipitation events and stormwater runoff into the concrete sump. The collection sump and tank will continue to be monitored during future site visits. If there is an observable increase in liquid recovery levels and a constant flow of liquids into the tank is available, a sample will be collected and analyzed for BTEX. The collection tank levels will be monitored and emptied as needed.

## 5.0 GROUNDWATER MONITORING

The semi-annual groundwater sampling event occurred in the fourth quarter 2022, as proposed in the fourth quarter 2019, *Quarterly Remediation System Operation and Monitoring Report*. Two groundwater samples were collected from monitoring wells MW-22 and MW-24 during the fourth quarter 2022. Groundwater samples from monitoring wells SB-19 and MW-18 were not collected due to the monitoring wells going dry during purging without adequate groundwater recharge during the sampling event.

## 6.0 NEXT QUARTER PROPOSED OPERATIONS

### 6.1 System Operation

The DPE remediation system will continue operating with the goal of optimizing vapor and liquid recovery. A decline in vapor-phase VOC concentrations and observed LNAPL thickness from each remediation zone has been observed, as expected with this remediation technique. During the fourth quarter 2022, the DPE system was focused on remediation Zone 2 and Zone 4. This approach will continue into the next two quarters.

During the next two quarters of operations and maintenance, the following actions are proposed:

- Bi-weekly (every other week) to monthly system operation and maintenance visits, including cycling between remediation zones;
- During routine visits, the DPE system will temporarily be isolated to only remediation wells where LNAPL has been observed for approximately one hour, and then the remediation zone will be changed;
- Groundwater and LNAPL will be gauged in monitoring and remediation wells to evaluate the presence and/or migration of LNAPL;
- LNAPL will be manually removed via bailer during routine visits if a large enough LNAPL thickness is measured;
- LNAPL recovery socks will be placed in any monitoring wells where LNAPL is measured in between site visits;
- Newly installed/converted remediation well MW-15 will continually operate in both remediation Zone 2 and Zone 4;
- The non-operational high vacuum blower pump was removed and diagnosed for repairs to be put back in service;
- At least one influent air extraction sample per quarter will be analyzed for Full 8260 VOCs, carbon dioxide, and oxygen; and
- When influent air samples are not collected, a photoionization detector (PID) will be used to estimate vapor exhaust concentrations.

### 6.2 Reporting

Updated remediation reports will be prepared and submitted to the NMOCD on a semi-annual basis within 30 days following the end of the quarter and will contain the following:

- A summary of remediation and monitoring activities during the period;
- System run-time summary;
- Petroleum hydrocarbon mass removal and fluid recovery from the remediation system;
- DPE volume removal and product recovery;
- Observations of concrete trap/collection tank;
- Quarterly gas sample analysis results; and
- Groundwater monitoring results.

Ensolum appreciates the opportunity to submit this report to the NMOCD on behalf of Harvest. If there are any questions or comments regarding this report, please contact Danny Burns at 303-601-1420 or [dburns@ensolum.com](mailto:dburns@ensolum.com).

Sincerely,

**Ensolum, LLC**



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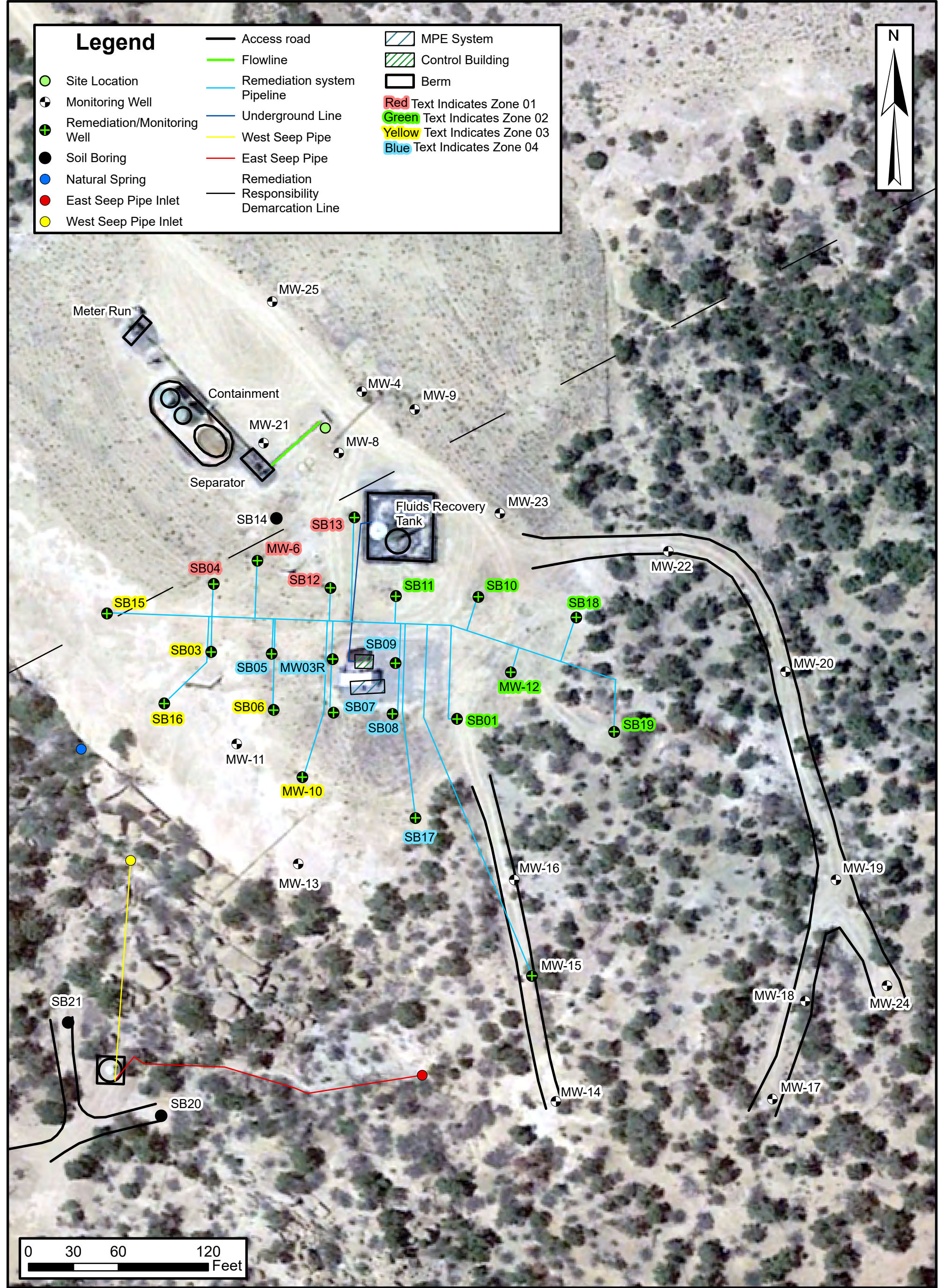
cc: Oakley Hayes, Harvest Four Corners, LLC




FIGURES









ENSOLUM  
Environmental, Engineering and  
Hydrogeologic Consultants

Remediation System Layout

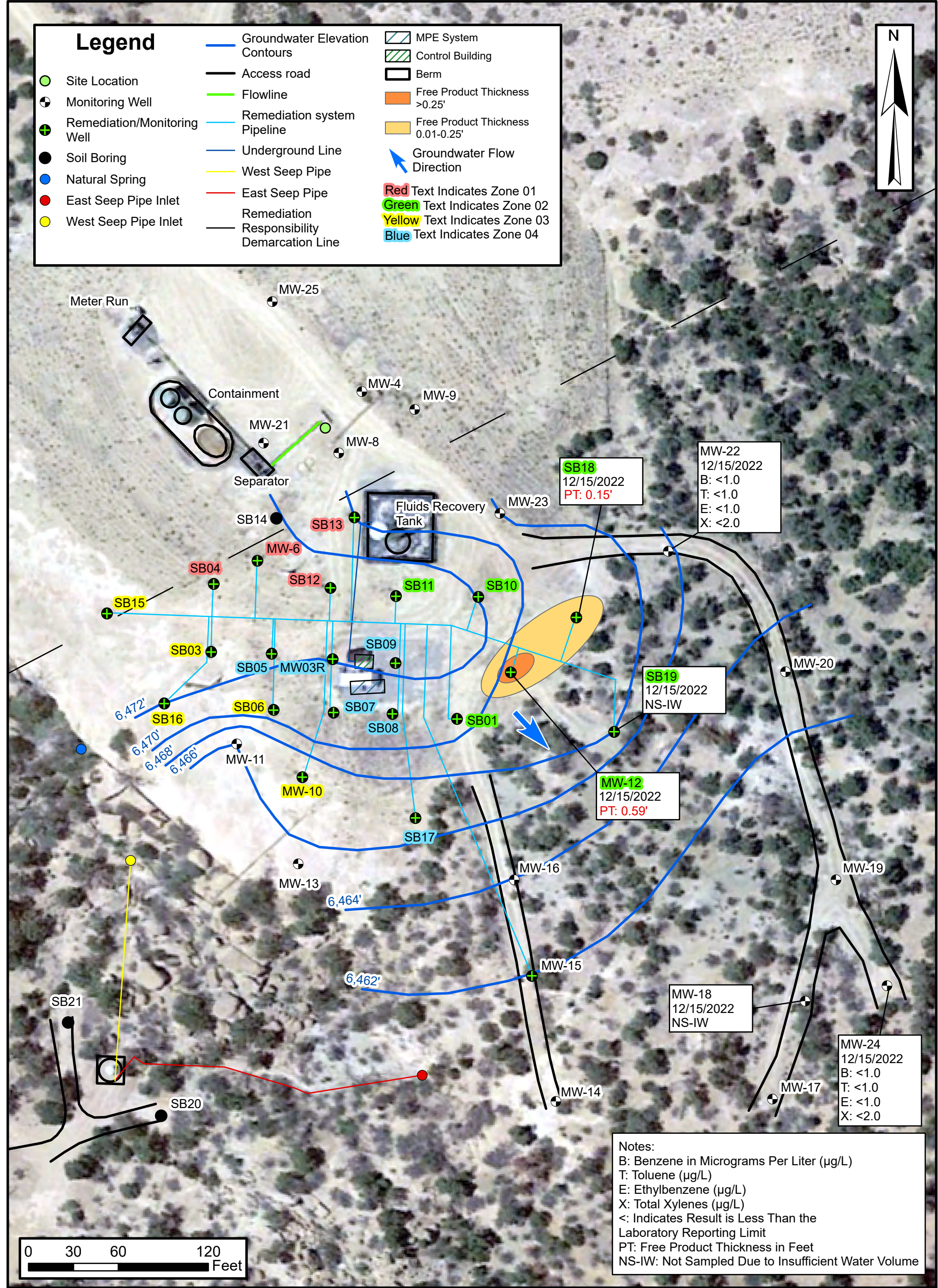
Florance GC J#16A  
Harvest Four Corners, LLC

Unit P, Sec 6, T30N, R9W  
San Juan County, New Mexico

FIGURE

1







**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants

# Groundwater Potentiometric & Analytical Results Map December 2022

Florance GC J#16A  
Harvest Four Corners, LLC  
Unit P, Sec 6, T30N, R9W  
San Juan County, New Mexico

FIGURE

# 2





TABLES



**TABLE 1**  
**REMEDIATION SYSTEM OPERATIONAL RUN-TIME FOURTH QUARTER 2022**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Date/Time of Reading	System Hour Runtime	Cumulative Run Time (%)	Run Time (%)	Notes
5/1/18 0:00	0			
5/4/18 9:00	42	START UP		
Earlier Data Provided in Previous Quarterly Reports				
9/21/2022 11:00	35,262	92%	90%	Troubleshoot fan in process room
10/1/2022 0:00	35,480	92%	95%	Start of Q4 2022
10/10/2022 12:20	35,709	92%	100%	Replace flow meter for SB19
10/28/2022 11:30	36,142	92%	100%	Replace gate valve and flow meter for SB18
11/4/2022 12:00	36,308	92%	99%	Remove blower B-702 for repair
11/17/2022 12:00	36,619	92%	100%	Blower B-702 removed for service and repair
12/14/2022 12:00	37,263	92%	99%	Q4 groundwater monitoring
1/5/2023 11:30	37,787	92%	99%	Drain KO tank and cleaned float stem and tube
<b>Average Q4 2022 Run Time</b>			<b>99%</b>	

**Notes:**

% - percent

Dashed line indicates quarter change

-- : not applicable/not collected





<b>TABLE 2</b> <b>EXTRACTED AIR BTEX DATA - FOURTH QUARTER 2022</b> <b>Florance GCJ #16A</b> <b>Harvest Four Corners, LLC</b> <b>San Juan County, New Mexico</b>			
<b>Collection Date:</b>	<b>9/21/2022</b>	<b>10/28/2022</b>	<b>1/5/2023</b>
<b>Collection Time:</b>	10:00	15:15	15:40
<b>Active Remediation Zone:</b>	4	4	2
<b>Benzene (µg/L)</b>	0.1	0.26	1.2
<b>Toluene (µg/L)</b>	0.36	0.59	1.9
<b>Ethylbenzene (µg/L)</b>	<0.10	<0.10	<0.50
<b>Xylenes, Total (µg/L)</b>	<0.10	2.4	4.9
<b>GRO (µg/L)</b>	350	830	1,500
<b>Total BTEX (µg/L):</b>	0.46	3.25	8.00
<b>PID Reading (ppm)</b>	75	154	340

**Notes:**

BTEX - benzene, toluene, ethylbenzene, and total xylenes

GRO - gasoline range organics

µg/L - micrograms per liter

ppm - parts per million

PID - photo-ionization detector



**TABLE 3**  
**MASS REMOVAL VAPOR PHASE - FOURTH QUARTER 2022**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Date/Time	Influent BTEX (mg/m <sup>3</sup> )	Active Remediation Zone	Air Flow Rate (scfm)	Time Period (hr:min:sec)	Time Period (min)	BTEX Mass Removed (lbs)	Gal Removed (@0.755 g/cm <sup>3</sup> )	Mass Removal Rate (lbs/day)	Mass Removal Rate (ton/yr)
Earlier Data Provided in Previous Quarterly Reports									
9/21/22 12:40	0.5	4	205	1129:00:00	67,740	14.4	2.3	0.306	0.056
10/28/22 15:15	3.3	4	274	890:35:00	53,435	0.3	0.05	0.008	0.002
1/5/23 15:40	8.0	2	289	1656:25:00	99,385	5.5	0.88	0.080	0.015
<b>Total Quantity of BTEX Removed 4th Quarter 2022</b>					6 lbs	0.9 gal	0.02 bbl		
<b>Total Quantity of BTEX Removed Since Start-up May 2018</b>					3,602 lbs	661.9 gal	15.8 bbl		

**Notes:**

bbl - barrel

lbs - pounds

sec - second

BTEX - benzene, toluene, ethylbenzene, total xylenes

lbs/day - pounds per day

ton/yr - ton per year

gal - gallons

mg/m<sup>3</sup> - milligrams per cubic meter

yr - year

g/cm<sup>3</sup> - grams per cubic centimeter

min - minute

Dashed line indicates a quarter change

hr - hour

scfm - standard cubic foot per minute

$$\text{BTEX Mass Removed (lbs)} = \text{Influent BTEX (mg/m}^3\text{)} \times \text{Air Flow Rates (scfm)} \times (1 \text{ m}^3/35.3147 \text{ ft}^3) \times (1 \text{ lb}/453,592 \text{ mg}) \times \text{Time Period (min)}$$



**TABLE 4**  
**LIQUID RECOVERY - FOURTH QUARTER 2022**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Date/Time	Hour Meter Reading	Flow Meter Reading (gal)	Gallons Recovered this Period	Cumulative Volume Recovered (gal)	Gallons Removed From Tank (Off-Site)	Time Period (hr:min:sec)	Time Period (min)	Recovery Rate		Notes
								(gpm)	(gal/day)	
Earlier Data Provided in Previous Quarterly Reports										
9/21/22 11:00	35,262	298,989	3,444	326,289	6,720	1127:20:00	67,640	0.05	73	Zone 4 Active
10/10/22 11:20	35,709	299,760	771	327,060	--	456:20:00	27,380	0.03	41	Zone 2 Active
10/28/22 11:30	36,142	301,700	1,940	329,000	--	432:10:00	25,930	0.07	108	Zone 4 Active
1/5/23 11:30	37,787	304,593	2,893	331,893	6,720	1656:00:00	99,360	0.03	42	Zone 2 Active

**Notes:**

bbl - barrel

ft - feet

gal - gallon

gal/day - gallon per day

gpm - gallon per minute

hr - hour

in - inch

LNAPL - light non-aqueous phase liquid

min - minute

sec - second

Dashed line indicated quarter change

--- - not applicable

<b>Total Quantity of Liquid Removed:</b>	331,893 Gal
	7,902 bbl





TABLE 5					
DPE SYSTEM OPERATIONS - FOURTH QUARTER 2022					
Florance GCJ #16A					
Harvest Four Corners, LLC					
San Juan County, New Mexico					
Well ID	Date		10/10/2022	10/28/2022	1/5/2023
Active Zone			2	4	2
MW-12	WH Vac (Online)	inHg	10.0	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	10.0	--	9.0
	PID	ppm	138	--	--
	Flow	scfm	22	--	35
SB-01	WH Vac (Online)	inHg	10.5	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	15.0	--	10.5
	PID	ppm	87	--	--
	Flow	scfm	42	--	48
SB-10	WH Vac (Online)	inHg	10.5	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	10.0	--	10.0
	PID	ppm	36	--	--
	Flow	scfm	24	--	50
SB-11	WH Vac (Online)	inHg	8.5	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	10.5	--	1.0
	PID	ppm	101	--	--
	Flow	scfm	44	--	44
SB-18	WH Vac (Online)	inHg	10.0	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	10.0	--	10.0
	PID	ppm	97	--	--
	Flow	scfm	40	--	44
SB-19	WH Vac (Online)	inHg	10.0	--	--
Zone 2	WH Vac (Offline)	inH2O	--	--	--
	Mani Vac	inHg	10.0	--	10.0
	PID	ppm	381	--	--
	Flow	scfm	66	--	68



TABLE 5						
DPE SYSTEM OPERATIONS - FOURTH QUARTER 2022						
Florance GCJ #16A						
Harvest Four Corners, LLC						
San Juan County, New Mexico						
Well ID	Date		10/10/2022	10/28/2022	1/5/2023	
Active Zone			2	4	2	
MW-3R	WH Vac (Online)	inHg	--	9.0	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	11.0	--	
	PID	ppm	--	49	--	
	Flow	scfm	--	52	--	
SB-05	WH Vac (Online)	inHg	--	11.0	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	11.0	--	
	PID	ppm	--	52	--	
	Flow	scfm	--	58	--	
SB-07	WH Vac (Online)	inHg	--	11.0	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	11.0	--	
	PID	ppm	--	82	--	
	Flow	scfm	--	42	--	
SB-08	WH Vac (Online)	inHg	--	10.0	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	11.5	--	
	PID	ppm	--	85	--	
	Flow	scfm	--	74	--	
SB-09	WH Vac (Online)	inHg	--	10.0	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	11.5	--	
	PID	ppm	--	117	--	
	Flow	scfm	--	48	--	
SB-17	WH Vac (Online)	inHg	--	--	--	
Zone 4	WH Vac (Offline)	inH2O	--	--	--	
	Mani Vac	inHg	--	--	--	
	PID	ppm	--	--	--	
	Flow	scfm	--	--	--	



<b>TABLE 5</b> <b>DPE SYSTEM OPERATIONS - FOURTH QUARTER 2022</b> <b>Florance GCJ #16A</b> <b>Harvest Four Corners, LLC</b> <b>San Juan County, New Mexico</b>				
Well ID	Date	10/10/2022	10/28/2022	1/5/2023
Active Zone		2	4	2
Well Field	Total Flow in Active Zone scfm	238	274	289

**Notes:**

in HG - inches of mercury

inH<sub>2</sub>O - inches of water

Mani Vac - vacuum gauge reading on remediation well manifold

PID - photoionization detector

ppm - parts per million

scfm - standard cubic feet per minute

% - percent

WH Vac - vacuum gauge reading on remediation well head





**TABLE 6**  
**GROUNDWATER ELEVATION**  
 Florance GC J 16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet amsl)
SB01	6,501.96	12/9/2021	31.31	--	--	6,470.65
		3/22/2022	31.53	--	--	6,470.43
		6/9/2022	31.24	--	--	6,470.72
		12/14/2022	31.16	--	--	6,470.80
SB03	6,495.01	12/9/2021	20.24	--	--	6,474.77
		3/22/2022	23.27	--	--	6,471.74
		6/9/2022	23.24	--	--	6,471.77
		12/14/2022	23.45	--	--	6,471.56
SB04	6,499.61	12/9/2021	28.04	--	--	6,471.57
		3/22/2022	27.79	--	--	6,471.82
		6/9/2022	27.84	--	--	6,471.77
		12/14/2022	27.05	--	--	6,472.56
SB05	6,498.76	12/9/2021	25.48	--	--	6,473.28
		3/22/2022	24.71	--	--	6,474.05
		6/9/2022	25.28	--	--	6,473.48
		12/14/2022	24.98	--	--	6,473.78
SB06	6,496.12	12/9/2021	25.11	--	--	6,471.01
		3/22/2022	25.10	--	--	6,471.02
		6/9/2022	24.17	--	--	6,471.95
		12/14/2022	24.68	--	--	6,471.44
SB07	6,500.29	12/9/2021	29.46	--	--	6,470.83
		3/22/2022	29.64	--	--	6,470.65
		6/9/2022	29.87	--	--	6,470.42
		12/14/2022	DRY	--	--	DRY
SB08	6,502.25	12/9/2021	30.94	--	--	6,471.31
		3/22/2022	30.62	--	--	6,471.63
		6/9/2022	31.08	--	--	6,471.17
		12/14/2022	DRY	--	--	DRY
SB09	6,504.18	12/9/2021	33.13	--	--	6,471.05
		3/22/2022	32.62	--	--	6,471.56
		6/9/2022	33.28	--	--	6,470.90
		12/14/2022	DRY	--	--	DRY
SB10	6,506.04	12/9/2021	DRY	--	--	DRY
		3/22/2022	DRY	--	--	DRY
		6/9/2022	DRY	--	--	DRY
		12/14/2022	DRY	--	--	DRY
SB11	6,505.61	12/9/2021	32.64	--	--	6,472.97
		3/22/2022	32.16	--	--	6,473.45
		6/9/2022	37.80	--	--	6,467.81
		12/14/2022	32.32	--	--	6,473.29
SB12	6,508.42	12/9/2021	DRY	--	--	DRY
		3/22/2022	DRY	--	--	DRY
		6/9/2022	DRY	--	--	DRY



**TABLE 6**  
**GROUNDWATER ELEVATION**  
 Florance GC J 16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet amsl)
SB12	6,508.42	12/14/2022	35.19	--	--	6,473.23
SB13	6,504.89	12/9/2021	35.05	--	--	6,469.84
		3/22/2022	34.96	--	--	6,469.93
		6/9/2022	35.22	--	--	6,469.67
		12/14/2022	34.74	--	--	6,470.15
SB15	6,494.31	12/9/2021	20.02	--	--	6,474.29
		3/22/2022	21.72	--	--	6,472.59
		6/9/2022	21.65	--	--	6,472.66
		12/14/2022	20.98	--	--	6,473.33
SB16	6,492.07	12/9/2021	20.16	--	--	6,471.91
		3/22/2022	22.30	--	--	6,469.77
		6/9/2022	20.23	--	--	6,471.84
		12/14/2022	19.47	--	--	6,472.60
SB17	6,492.57	12/9/2021	DRY	--	--	DRY
		3/22/2022	DRY	--	--	DRY
		6/9/2022	DRY	--	--	DRY
		12/14/2022	DRY	--	--	DRY
SB18	6,506.38	12/9/2021	35.22	--	--	6,471.16
		3/22/2022	34.56	--	--	6,471.82
		6/9/2022	DRY	--	--	DRY
		12/14/2022	37.33	37.18	0.15	6,465.65
SB19	6,503.99	12/9/2021	35.38	--	--	6,468.61
		3/22/2022	35.69	--	--	6,468.30
		6/9/2022	30.32	--	--	6,473.67
		12/14/2022	35.91	--	--	6,468.08
MW-3R	6,502.86	12/9/2021	28.87	--	--	6,473.99
		3/22/2022	30.24	--	--	6,472.62
		6/9/2022	31.11	31.09	0.02	6,471.77
		12/14/2022	30.68	--	--	6,472.18
MW-4*	--	12/9/2021	34.13	--	--	--
		3/22/2022	35.55	--	--	--
		6/9/2022	34.82	--	--	--
		12/14/2022	34.88	--	--	--
MW-6*	--	12/9/2021	32.35	--	--	--
		3/22/2022	33.44	--	--	--
		6/9/2022	32.96	--	--	--
		12/14/2022	32.49	--	--	--
MW-8*	--	12/9/2021	36.03	--	--	--
		3/22/2022	36.20	--	--	--
		6/9/2022	36.34	--	--	--
		12/14/2022	35.85	--	--	--
MW-9*	--	12/9/2021	45.32	--	--	--
		3/22/2022	45.34	--	--	--



**TABLE 6**  
**GROUNDWATER ELEVATION**  
 Florance GC J 16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet amsl)
MW-9*	--	6/9/2022	45.29	--	--	--
		12/14/2022	45.31	--	--	--
MW-10*	--	12/9/2021	20.07	--	--	--
		3/22/2022	23.38	--	--	--
		6/9/2022	24.10	--	--	--
		12/14/2022	22.92	--	--	--
MW-11	6,492.85	12/9/2021	26.53	--	--	6,466.32
		3/22/2022	25.98	--	--	6,466.87
		6/9/2022	26.79	--	--	6,466.06
		12/14/2022	26.55	--	--	6,466.30
MW-12	6,503.57	12/9/2021	34.21	32.94	1.27	6,470.38
		3/22/2022	34.86	33.72	1.14	6,469.62
		6/9/2022	34.41	33.46	0.95	6,469.92
		12/14/2022	34.45	33.86	0.59	6,469.59
MW-13	6,490.03	12/9/2021	24.01	--	--	6,466.02
		3/22/2022	24.67	--	--	6,465.36
		6/9/2022	24.43	--	--	6,465.60
		12/14/2022	24.39	--	--	6,465.64
MW-14	6,476.22	12/9/2021	15.45	--	--	6,460.77
		3/22/2022	14.98	--	--	6,461.24
		6/9/2022	15.14	--	--	6,461.08
		12/14/2022	15.65	--	--	6,460.57
MW-15	6,478.37	12/9/2021	17.02	16.05	0.97	6,462.13
		3/22/2022	16.31	16.22	0.09	6,462.13
		6/9/2022	16.49	16.32	0.17	6,462.02
		12/14/2022	16.32	--	--	6,462.05
MW-16	6,487.57	12/9/2021	22.79	--	--	6,464.78
		3/22/2022	22.73	--	--	6,464.84
		6/9/2022	22.73	--	--	6,464.84
		12/14/2022	22.74	--	--	6,464.83
MW-17	6,483.30	12/9/2021	22.18	--	--	6,461.12
		3/22/2022	22.29	--	--	6,461.01
		6/9/2022	22.35	--	--	6,460.95
		12/14/2022	22.42	--	--	6,460.88
MW-18	6,485.22	12/9/2021	24.01	--	--	6,461.21
		3/22/2022	24.37	--	--	6,460.85
		6/9/2022	24.44	--	--	6,460.78
		12/14/2022	24.29	--	--	6,460.93
MW-19	6,492.35	12/9/2021	30.83	--	--	6,461.52
		3/22/2022	31.54	--	--	6,460.81
		6/9/2022	32.79	--	--	6,459.56
		12/14/2022	31.60	--	--	6,460.75
MW-20	6,493.38	12/9/2021	29.82	--	--	6,463.56



**TABLE 6**  
**GROUNDWATER ELEVATION**  
 Florance GC J 16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet amsl)
MW-20	6,493.38	3/22/2022	29.53	--	--	6,463.85
		6/9/2022	29.73	--	--	6,463.65
		12/14/2022	29.56	--	--	6,463.82
MW-21	6,508.15	12/9/2021	37.46	--	--	6,470.69
		3/22/2022	37.52	--	--	6,470.63
		6/9/2022	37.50	--	--	6,470.65
MW-22	6,497.15	12/14/2022	37.24	--	--	6,470.91
		12/9/2021	34.20	--	--	6,462.95
		3/22/2022	30.77	--	--	6,466.38
MW-23	6,505.95	6/9/2022	30.86	--	--	6,466.29
		12/14/2022	30.62	--	--	6,466.53
		12/9/2021	38.20	--	--	6,467.75
MW-24	6,490.71	3/22/2022	37.10	--	--	6,468.85
		6/9/2022	38.21	--	--	6,467.74
		12/14/2022	37.75	--	--	6,468.20
MW-25	6,507.65	12/9/2021	29.80	--	--	6,460.91
		3/22/2022	29.81	--	--	6,460.90
		6/9/2022	29.93	--	--	6,460.78
		12/14/2022	30.00	--	--	6,460.71
MW-25	6,507.65	12/9/2021	35.40	--	--	6,472.25
		3/22/2022	35.69	--	--	6,471.96
		6/9/2022	35.15	--	--	6,472.50
		12/14/2022	34.78	--	--	6,472.87

**Notes:**

amsl: above mean sea level

BTOC: below top of casing

--: indicates no GWEL or PSH measured

Groundwater elevation is adjusted using a density correction factor of 0.8 when product is present





**TABLE 7**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
<b>NMWQCC Standards</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>
<b>SB01</b>	6/4/2020	NS-LNAPL			
	9/17/2020	NS-LNAPL			
<b>SB03</b>	6/4/2020	<b>32</b>	8.1	69	720
	9/18/2020	<b>6.8</b>	<5.0	14	170
<b>SB04</b>	6/4/2020	NS			
	9/18/2020	<1.0	<1.0	11	63
	6/10/2022	2.1	4.4	14	49
<b>SB05</b>	6/4/2020	NS			
	9/18/2020	<b>460</b>	60	<10	380
<b>SB06</b>	6/4/2020	NS			
	9/18/2020	NS-LNAPL			
<b>SB07</b>	6/4/2020	NS			
	9/17/2020	NS			
<b>SB08</b>	6/4/2020	NS			
	9/17/2020	NS			
<b>SB09</b>	6/4/2020	NS			
	9/17/2020	NS			
<b>SB10</b>	6/4/2020	NS-DRY			
	9/17/2020	NS-DRY			
<b>SB11</b>	6/4/2020	NS			
	9/17/2020	NS			
<b>SB12</b>	6/4/2020	NS			
	9/17/2020	NS			
<b>SB13</b>	6/5/2020	<1.0	<1.0	<1.0	<2.0
	9/18/2020	2.0	<1.0	<1.0	<1.5
<b>SB15</b>	6/4/2020	NS			
	9/18/2020	NS - Insufficient amount of water to sample			
<b>SB16</b>	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	6/10/2022	<1.0	<1.0	<1.0	<2.0
<b>SB17</b>	6/4/2020	NS-DRY			



**TABLE 7**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards		5	1,000	700	620
SB17	9/18/2020	NS-DRY			
SB18	6/5/2020	7,400	9,100	760	9,800
	9/18/2020	NS - Insufficient amount of water to sample			
SB19	6/4/2020	NS			
	9/18/2020	NS - Insufficient amount of water to sample			
	12/15/2022	NS - Insufficient amount of water to sample			
MW-1	Destroyed during excavation/remediation activities				
MW-2	Destroyed during excavation/remediation activities				
MW-3R	6/4/2020	NS-LNAPL			
	9/18/2020	NS-LNAPL			
MW-4	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	1.1	<1.5
	6/2/2021	<1.0	<1.0	<1.0	<2.0
	6/9/2022	<1.0	<1.0	<1.0	<2.0
MW-5	Destroyed during excavation/remediation activities				
MW-6	6/5/2020	<1.0	2.7	66	170
	9/18/2020	<1.0	1.1	1.7	180
MW-7	Destroyed during excavation/remediation activities				
MW-8	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	6/2/2021	<1.0	<1.0	<1.0	<2.0
	6/9/2022	<1.0	<1.0	<1.0	<2.0
MW-9	6/4/2020	<1.0	<1.0	<1.0	<2.0
	9/17/2020	<1.0	<1.0	<1.0	<1.5
MW-10	6/4/2020	370	46	86	880
	9/18/2020	380	<5.0	120	28
MW-11	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	6/2/2021	<1.0	<1.0	<1.0	<2.0
	6/9/2022	<1.0	<1.0	<1.0	<2.0
MW-12	6/4/2020	NS-LNAPL			
	9/17/2020	NS-LNAPL			



**TABLE 7**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
<b>NMWQCC Standards</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>
<b>MW-13</b>	6/4/2020	<b>1,100</b>	<20	160	460
	9/17/2020	<b>1,500</b>	<20	260	<b>890</b>
<b>MW-14</b>	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	12/17/2020	<1.0	<1.0	<1.0	<2.0
	6/2/2021	<1.0	<1.0	<1.0	<2.0
	6/10/2022	1.9	<1.0	<1.0	<2.0
<b>MW-15</b>	6/4/2020	<b>8,600</b>	<b>10,000</b>	<b>800</b>	<b>9,600</b>
	9/17/2020	NS-LNAPL			
<b>MW-16</b>	6/4/2020	NS-DRY			
	9/17/2020	NS - Insufficient amount of water to sample			
<b>MW-17</b>	6/4/2020	NS			
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	6/2/2021	<1.0	<1.0	<1.0	<2.0
	6/9/2022	<1.0	<1.0	<1.0	<2.0
<b>MW-18</b>	6/26/2020	<1.0	<1.0	<1.0	<1.5
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	12/17/2020	<1.0	<1.0	<1.0	<2.0
	12/9/2021	<1.0	<1.0	<1.0	<2.0
	6/9/2022	<1.0	<1.0	<1.0	<2.0
	12/15/2022	NS - Insufficient amount of water to sample			
<b>MW-19</b>	6/4/2020	NS-LNAPL			
	9/17/2020	NS-LNAPL			
<b>MW-20</b>	6/4/2020	<1.0	<1.0	<1.0	<2.0
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	12/17/2020	<1.0	<1.0	<1.0	<2.0
<b>MW-21</b>	6/4/2020	<b>9.6</b>	<1.0	23	21
	9/17/2020	<b>5.6</b>	<1.0	6.6	<1.5
	12/18/2020	4.1	1.5	5.6	2.6
<b>MW-22</b>	6/26/2020	<1.0	<1.0	<1.0	<1.5
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	12/9/2021	<1.0	<1.0	<1.0	<1.5
	6/9/2022	<1.0	<1.0	<1.0	<2.0



**TABLE 7**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Florance GCJ #16A  
 Harvest Four Corners, LLC  
 San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
<b>NMWQCC Standards</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>
<b>MW-22</b>	12/15/2022	<1.0	<1.0	<1.0	<2.0
<b>MW-23</b>	6/4/2020	1.8	<1.0	<1.0	<2.0
	9/17/2020	2.2	<1.0	<1.0	<1.5
	12/18/2020	1.5	<1.0	<1.0	<2.0
<b>MW-24</b>	6/26/2020	<1.0	<1.0	5.3	<1.5
	9/17/2020	1.1	<1.0	5.9	<1.5
	12/17/2020	1.4	<1.0	5.9	<2.0
	12/9/2021	1.2	<1.0	1.4	<1.5
	6/9/2022	<1.0	<1.0	1.5	<2.0
	12/15/2022	<1.0	<1.0	<1.0	<2.0
<b>MW-25</b>	6/4/2020	<1.0	<1.0	<1.0	<2.0
	9/17/2020	<1.0	<1.0	<1.0	<1.5
	12/18/2020	<1.0	<1.0	<1.0	<2.0

**Notes:**

LNAPL - light non-aqueous phase liquid

µg/L - micrograms per Liter

NMWQCC - New Mexico Water Quality Control Commission

NS - not sampled

**Bold** indicates result exceeds applicable standard





## APPENDIX A

### Laboratory Analytical Reports

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 08, 2022

Danny Burns

Harvest

1755 Arroyo Dr.

Bloomfield, NM 87413

TEL: (505) 632-4475

FAX:

RE: Florance GC J 16A

OrderNo.: 2211066

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/2/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2211066

Date Reported: 11/8/2022

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: Influent Zone 4

Project: Florance GC J 16A

Collection Date: 10/28/2022 3:15:00 PM

Lab ID: 2211066-001

Matrix: AIR

Received Date: 11/2/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: CCM
Gasoline Range Organics (GRO)	830	25		µg/L	5	11/4/2022 5:06:00 PM	G92344
Surr: BFB	91.4	70-130		%Rec	5	11/4/2022 5:06:00 PM	G92344
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: CCM
Benzene	0.26	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Toluene	0.59	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Ethylbenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2,4-Trimethylbenzene	0.21	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,3,5-Trimethylbenzene	0.54	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Naphthalene	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
1-Methylnaphthalene	ND	0.40		µg/L	1	11/4/2022 4:19:00 PM	R92344
2-Methylnaphthalene	ND	0.40		µg/L	1	11/4/2022 4:19:00 PM	R92344
Acetone	ND	1.0		µg/L	1	11/4/2022 4:19:00 PM	R92344
Bromobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Bromodichloromethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Bromoform	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Bromomethane	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
2-Butanone	ND	1.0		µg/L	1	11/4/2022 4:19:00 PM	R92344
Carbon disulfide	ND	1.0		µg/L	1	11/4/2022 4:19:00 PM	R92344
Carbon tetrachloride	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Chlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Chloroethane	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
Chloroform	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Chloromethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
2-Chlorotoluene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
4-Chlorotoluene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
cis-1,2-DCE	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
Dibromochloromethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Dibromomethane	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2-Dichlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,3-Dichlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,4-Dichlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Dichlorodifluoromethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1-Dichloroethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1-Dichloroethene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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## Analytical Report

Lab Order 2211066

Date Reported: 11/8/2022

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: Influent Zone 4

Project: Florance GC J 16A

Collection Date: 10/28/2022 3:15:00 PM

Lab ID: 2211066-001

Matrix: AIR

Received Date: 11/2/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: CCM
1,2-Dichloropropane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,3-Dichloropropane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
2,2-Dichloropropane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1-Dichloropropene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Hexachlorobutadiene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
2-Hexanone	ND	1.0		µg/L	1	11/4/2022 4:19:00 PM	R92344
Isopropylbenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
4-Isopropyltoluene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
4-Methyl-2-pentanone	ND	1.0		µg/L	1	11/4/2022 4:19:00 PM	R92344
Methylene chloride	ND	0.30		µg/L	1	11/4/2022 4:19:00 PM	R92344
n-Butylbenzene	ND	0.30		µg/L	1	11/4/2022 4:19:00 PM	R92344
n-Propylbenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
sec-Butylbenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Styrene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
tert-Butylbenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
trans-1,2-DCE	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1,1-Trichloroethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,1,2-Trichloroethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Trichloroethene (TCE)	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Trichlorofluoromethane	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
1,2,3-Trichloropropane	ND	0.20		µg/L	1	11/4/2022 4:19:00 PM	R92344
Vinyl chloride	ND	0.10		µg/L	1	11/4/2022 4:19:00 PM	R92344
Xylenes, Total	2.4	0.15		µg/L	1	11/4/2022 4:19:00 PM	R92344
Surr: Dibromofluoromethane	79.6	70-130		%Rec	1	11/4/2022 4:19:00 PM	R92344
Surr: 1,2-Dichloroethane-d4	74.3	70-130		%Rec	1	11/4/2022 4:19:00 PM	R92344
Surr: Toluene-d8	128	70-130		%Rec	1	11/4/2022 4:19:00 PM	R92344
Surr: 4-Bromofluorobenzene	93.0	70-130		%Rec	1	11/4/2022 4:19:00 PM	R92344

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2211066

08-Nov-22

**Client:** Harvest  
**Project:** Florance GC J 16A

Sample ID: <b>2211066-001adup</b>		SampType: <b>DUP</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>						
Client ID: <b>Influent Zone 4</b>		Batch ID: <b>R92344</b>		RunNo: <b>92344</b>						
Prep Date:		Analysis Date: <b>11/4/2022</b>		SeqNo: <b>3319535</b>		Units: <b>µg/L</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.26	0.10						0.306	20	
Toluene	0.56	0.10						5.86	20	
Ethylbenzene	ND	0.10						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.10						0	20	
1,2,4-Trimethylbenzene	0.20	0.10						5.19	20	
1,3,5-Trimethylbenzene	0.53	0.10						2.95	20	
1,2-Dichloroethane (EDC)	ND	0.10						0	20	
1,2-Dibromoethane (EDB)	ND	0.10						0	20	
Naphthalene	ND	0.20						0	20	
1-Methylnaphthalene	ND	0.40						0	20	
2-Methylnaphthalene	ND	0.40						0	20	
Acetone	ND	1.0						0	20	
Bromobenzene	ND	0.10						0	20	
Bromodichloromethane	ND	0.10						0	20	
Bromoform	ND	0.10						0	20	
Bromomethane	ND	0.20						0	20	
2-Butanone	ND	1.0						0	20	
Carbon disulfide	ND	1.0						0	20	
Carbon tetrachloride	ND	0.10						0	20	
Chlorobenzene	ND	0.10						0	20	
Chloroethane	ND	0.20						0	20	
Chloroform	ND	0.10						0	20	
Chloromethane	ND	0.10						0	20	
2-Chlorotoluene	ND	0.10						0	20	
4-Chlorotoluene	ND	0.10						0	20	
cis-1,2-DCE	ND	0.10						0	20	
cis-1,3-Dichloropropene	ND	0.10						0	20	
1,2-Dibromo-3-chloropropane	ND	0.20						0	20	
Dibromochloromethane	ND	0.10						0	20	
Dibromomethane	ND	0.20						0	20	
1,2-Dichlorobenzene	ND	0.10						0	20	
1,3-Dichlorobenzene	ND	0.10						0	20	
1,4-Dichlorobenzene	ND	0.10						0	20	
Dichlorodifluoromethane	ND	0.10						0	20	
1,1-Dichloroethane	ND	0.10						0	20	
1,1-Dichloroethene	ND	0.10						0	20	
1,2-Dichloropropane	ND	0.10						0	20	
1,3-Dichloropropane	ND	0.10						0	20	
2,2-Dichloropropane	ND	0.10						0	20	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 3 of 5

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2211066

08-Nov-22

**Client:** Harvest  
**Project:** Florance GC J 16A

Sample ID: <b>2211066-001adup</b>		SampType: <b>DUP</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>						
Client ID: <b>Influent Zone 4</b>		Batch ID: <b>R92344</b>		RunNo: <b>92344</b>						
Prep Date:		Analysis Date: <b>11/4/2022</b>		SeqNo: <b>3319535</b>		Units: <b>µg/L</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10						0	20	
Hexachlorobutadiene	ND	0.10						0	20	
2-Hexanone	ND	1.0						0	20	
Isopropylbenzene	ND	0.10						0	20	
4-Isopropyltoluene	ND	0.10						0	20	
4-Methyl-2-pentanone	ND	1.0						0	20	
Methylene chloride	ND	0.30						0	20	
n-Butylbenzene	ND	0.30						0	20	
n-Propylbenzene	ND	0.10						0	20	
sec-Butylbenzene	ND	0.10						0	20	
Styrene	ND	0.10						0	20	
tert-Butylbenzene	ND	0.10						0	20	
1,1,1,2-Tetrachloroethane	ND	0.10						0	20	
1,1,2,2-Tetrachloroethane	ND	0.10						0	20	
Tetrachloroethene (PCE)	ND	0.10						0	20	
trans-1,2-DCE	ND	0.10						0	20	
trans-1,3-Dichloropropene	ND	0.10						0	20	
1,2,3-Trichlorobenzene	ND	0.10						0	20	
1,2,4-Trichlorobenzene	ND	0.10						0	20	
1,1,1-Trichloroethane	ND	0.10						0	20	
1,1,2-Trichloroethane	ND	0.10						0	20	
Trichloroethene (TCE)	ND	0.10						0	20	
Trichlorofluoromethane	ND	0.10						0	20	
1,2,3-Trichloropropane	ND	0.20						0	20	
Vinyl chloride	ND	0.10						0	20	
Xylenes, Total	2.3	0.15						2.97	20	
Surr: Dibromofluoromethane	0.81		1.000		81.3	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.77		1.000		77.4	70	130	0	0	
Surr: Toluene-d8	1.3		1.000		126	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.92		1.000		91.8	70	130	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2211066

08-Nov-22

Client: Harvest

Project: Florance GC J 16A

Sample ID: 2211066-001adup		SampType: DUP			TestCode: EPA Method 8015D: Gasoline Range					
Client ID: Influent Zone 4		Batch ID: G92344			RunNo: 92344					
Prep Date:		Analysis Date: 11/4/2022			SeqNo: 3319545		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	810	25						2.57	20	
Surr: BFB	4600		5000		91.8	70	130	0	0	

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Harvest

Work Order Number: 2211066

RcptNo: 1

Received By: Tracy Casarrubias 11/2/2022 7:20:00 AM

Completed By: Tracy Casarrubias 11/2/2022 8:49:35 AM

Reviewed By: *TC 11/2/22*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☐ No ☐ NA ☒
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: *KPG 11.2.22*

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	NA	Good	Yes			







Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

December 29, 2022

Danny Burns

Harvest

1755 Arroyo Dr.

Bloomfield, NM 87413

TEL: (505) 632-4475

FAX:

RE: Florance GC J 16A

OrderNo.: 2212A28

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/16/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2212A28

Date Reported: 12/29/2022

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-22

Project: Florance GC J 16A

Collection Date: 12/15/2022 3:25:00 PM

Lab ID: 2212A28-001

Matrix: AQUEOUS

Received Date: 12/16/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	1.0		µg/L	1	12/27/2022 4:26:14 PM	D93549
Toluene	ND	1.0		µg/L	1	12/27/2022 4:26:14 PM	D93549
Ethylbenzene	ND	1.0		µg/L	1	12/27/2022 4:26:14 PM	D93549
Xylenes, Total	ND	2.0		µg/L	1	12/27/2022 4:26:14 PM	D93549
Surr: 4-Bromofluorobenzene	85.9	70-130		%Rec	1	12/27/2022 4:26:14 PM	D93549

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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## Analytical Report

Lab Order 2212A28

Date Reported: 12/29/2022

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-24

Project: Florance GC J 16A

Collection Date: 12/15/2022 3:00:00 PM

Lab ID: 2212A28-002

Matrix: AQUEOUS

Received Date: 12/16/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	1.0		µg/L	1	12/27/2022 4:49:52 PM	D93549
Toluene	ND	1.0		µg/L	1	12/27/2022 4:49:52 PM	D93549
Ethylbenzene	ND	1.0		µg/L	1	12/27/2022 4:49:52 PM	D93549
Xylenes, Total	ND	2.0		µg/L	1	12/27/2022 4:49:52 PM	D93549
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	12/27/2022 4:49:52 PM	D93549

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 2 of 3

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2212A28

29-Dec-22

**Client:** Harvest  
**Project:** Florance GC J 16A

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBW</b>	Batch ID: <b>D93549</b>		RunNo: <b>93549</b>							
Prep Date:	Analysis Date: <b>12/27/2022</b>		SeqNo: <b>3375243</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	17		20.00		87.5	70	130			

Sample ID: <b>100ng btex lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>D93549</b>		RunNo: <b>93549</b>							
Prep Date:	Analysis Date: <b>12/27/2022</b>		SeqNo: <b>3375244</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	84.2	70	130			
Toluene	17	1.0	20.00	0	87.4	70	130			
Ethylbenzene	17	1.0	20.00	0	87.3	70	130			
Xylenes, Total	53	2.0	60.00	0	88.1	70	130			
Surr: 4-Bromofluorobenzene	17		20.00		86.9	70	130			

Sample ID: <b>2212a28-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>MW-24</b>	Batch ID: <b>D93549</b>		RunNo: <b>93549</b>							
Prep Date:	Analysis Date: <b>12/27/2022</b>		SeqNo: <b>3375247</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.6100	91.9	70	130			
Toluene	19	1.0	20.00	0.2620	92.2	70	130			
Ethylbenzene	19	1.0	20.00	0.9180	92.6	70	130			
Xylenes, Total	56	2.0	60.00	0.7400	91.4	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		100	70	130			

Sample ID: <b>2212a28-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>MW-24</b>	Batch ID: <b>D93549</b>		RunNo: <b>93549</b>							
Prep Date:	Analysis Date: <b>12/27/2022</b>		SeqNo: <b>3375248</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0.6100	88.8	70	130	3.34	20	
Toluene	18	1.0	20.00	0.2620	89.2	70	130	3.36	20	
Ethylbenzene	19	1.0	20.00	0.9180	90.4	70	130	2.29	20	
Xylenes, Total	54	2.0	60.00	0.7400	88.9	70	130	2.77	20	
Surr: 4-Bromofluorobenzene	19		20.00		97.4	70	130	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Harvest

Work Order Number: 2212A28

RcptNo: 1

Received By: Tracy Casarrubias 12/16/2022 7:40:00 AM

Completed By: Tracy Casarrubias 12/16/2022 10:02:24 AM

Reviewed By: *JA 12-16-22*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: *JA 12/16/22*

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			



## Chain-of-Custody Record

Client: Harvest Midstream

Attn: Oakley Hayes

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

□ EDD (Type)

Date	Time	Matrix	Sample Name
------	------	--------	-------------

12-15	1525	AQ	MW-22
12-15	1500	AQ	MW-24

Date:	Time:	Relinquished By:
-------	-------	------------------

10

Date:	Time:	Relinquished by:
-------	-------	------------------

21/0

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 5/10/2024 3:22:19 PM

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Florence GC 516A

Project #:

Project Manager:

Danny Burns

**Sampler:**

On Ice:	<input checked="" type="checkbox"/> Yes
---------	---

# of Coolers:

Cooler Temp (including CF):	16.6-5.1 = 11.5	(°C)
-----------------------------	-----------------	------

Container

Type and

24

2012

Container	Preservative
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Type and #

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1711	7402.5
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HEAL No.

7212A75

[illegible]

801

Received by:	Via:
--------------	------

*[Handwritten signature]*

Received by: Via:

1

Remarks:

cc: pcarroll  
dburns  
aherb  
@ensdum.com



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

January 23, 2023

Brooke Herb

Harvest

1755 Arroyo Dr.

Bloomfield, NM 87413

TEL: (505) 632-4475

FAX:

RE: Florance GC J16A

OrderNo.: 2301326

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/10/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2301326

Date Reported: 1/23/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: Influent Zone 02

Project: Florance GC J16A

Collection Date: 1/5/2023 3:40:00 PM

Lab ID: 2301326-001

Matrix: AIR

Received Date: 1/10/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: CCM
Gasoline Range Organics (GRO)	1500	25		µg/L	5	1/11/2023 1:45:00 PM	G93871
Surr: BFB	98.7	70-130		%Rec	5	1/11/2023 1:45:00 PM	G93871
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: CCM
Benzene	1.2	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Toluene	1.9	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Ethylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Methyl tert-butyl ether (MTBE)	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2,4-Trimethylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,3,5-Trimethylbenzene	0.75	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2-Dichloroethane (EDC)	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2-Dibromoethane (EDB)	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Naphthalene	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
1-Methylnaphthalene	ND	2.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
2-Methylnaphthalene	ND	2.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Acetone	ND	5.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Bromobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Bromodichloromethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Bromoform	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Bromomethane	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
2-Butanone	ND	5.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Carbon disulfide	ND	5.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Carbon tetrachloride	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Chlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Chloroethane	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Chloroform	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Chloromethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
2-Chlorotoluene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
4-Chlorotoluene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
cis-1,2-DCE	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
cis-1,3-Dichloropropene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2-Dibromo-3-chloropropane	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Dibromochloromethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Dibromomethane	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2-Dichlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,3-Dichlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,4-Dichlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Dichlorodifluoromethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1-Dichloroethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1-Dichloroethene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 1 of 5

## Analytical Report

Lab Order 2301326

Date Reported: 1/23/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: Influent Zone 02

Project: Florance GC J16A

Collection Date: 1/5/2023 3:40:00 PM

Lab ID: 2301326-001

Matrix: AIR

Received Date: 1/10/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: CCM
1,2-Dichloropropane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,3-Dichloropropane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
2,2-Dichloropropane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1-Dichloropropene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Hexachlorobutadiene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
2-Hexanone	ND	5.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Isopropylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
4-Isopropyltoluene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
4-Methyl-2-pentanone	ND	5.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Methylene chloride	ND	1.5		µg/L	5	1/11/2023 1:45:00 PM	R93871
n-Butylbenzene	ND	1.5		µg/L	5	1/11/2023 1:45:00 PM	R93871
n-Propylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
sec-Butylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Styrene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
tert-Butylbenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Tetrachloroethene (PCE)	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
trans-1,2-DCE	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
trans-1,3-Dichloropropene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2,3-Trichlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2,4-Trichlorobenzene	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1,1-Trichloroethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,1,2-Trichloroethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Trichloroethene (TCE)	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Trichlorofluoromethane	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
1,2,3-Trichloropropane	ND	1.0		µg/L	5	1/11/2023 1:45:00 PM	R93871
Vinyl chloride	ND	0.50		µg/L	5	1/11/2023 1:45:00 PM	R93871
Xylenes, Total	4.9	0.75		µg/L	5	1/11/2023 1:45:00 PM	R93871
Surr: Dibromofluoromethane	102	70-130		%Rec	5	1/11/2023 1:45:00 PM	R93871
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	5	1/11/2023 1:45:00 PM	R93871
Surr: Toluene-d8	116	70-130		%Rec	5	1/11/2023 1:45:00 PM	R93871
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	1/11/2023 1:45:00 PM	R93871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 2 of 5



## ANALYTICAL SUMMARY REPORT

January 20, 2023

Hall Environmental  
4901 Hawkins St NE Ste D  
Albuquerque, NM 87109-4372

Work Order: B23010674 Quote ID: B15626

Project Name: Not Indicated

---

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 1/11/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23010674-001	2301326-001B, Influent Zone 02	01/05/23 15:40	01/11/23	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:





Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 800.735.4489 • Casper, WY 888.235.0515  
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Hall Environmental  
**Project:** Not Indicated  
**Lab ID:** B23010674-001  
**Client Sample ID:** 2301326-001B, Influent Zone 02

**Report Date:** 01/20/23  
**Collection Date:** 01/05/23 15:40  
**Date Received:** 01/11/23  
**Matrix:** Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>GAS CHROMATOGRAPHY ANALYSIS REPORT</b>							
Oxygen	21.03	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Nitrogen	78.20	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Carbon Dioxide	0.77	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Methane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Ethane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Propane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	01/19/23 12:17 / ikc
Propane	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	01/19/23 12:17 / ikc

### CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND		1		GPA 2261-95	01/19/23 12:17 / ikc
Net BTU per cu ft @ std cond. (LHV)	ND		1		GPA 2261-95	01/19/23 12:17 / ikc
Pseudo-critical Pressure, psia	547		1		GPA 2261-95	01/19/23 12:17 / ikc
Pseudo-critical Temperature, deg R	241		1		GPA 2261-95	01/19/23 12:17 / ikc
Specific Gravity @ 60/60F	1.00		0.001		D3588-81	01/19/23 12:17 / ikc
Air, %	96.10		0.01		GPA 2261-95	01/19/23 12:17 / ikc

- The analysis was not corrected for air.

### COMMENTS

-					-	01/19/23 12:17 / ikc
- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior. - GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions. - To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825. - Standard conditions: 60 F & 14.73 psi on a dry basis.						

**Report Definitions:** RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23010674

Report Date: 01/20/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: GPA 2261-95</b>									Batch: R396464	
<b>Lab ID: B23011052-001ADUP</b> 12 Sample Duplicate									Run: GCNGA-B_230119A 01/19/23 13:37	
Oxygen		21.6	Mol %	0.01				1.2	20	
Nitrogen		78.1	Mol %	0.01				0.1	20	
Carbon Dioxide		0.31	Mol %	0.01				110	20	R
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		<0.01	Mol %	0.01					20	
<b>Lab ID: LCS012023A</b> 11 Laboratory Control Sample									Run: GCNGA-B_230119A 01/20/23 09:27	
Oxygen		0.63	Mol %	0.01	126	70	130			
Nitrogen		5.87	Mol %	0.01	98	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		74.6	Mol %	0.01	100	70	130			
Ethane		5.96	Mol %	0.01	99	70	130			
Propane		5.03	Mol %	0.01	102	70	130			
Isobutane		2.01	Mol %	0.01	100	70	130			
n-Butane		2.03	Mol %	0.01	101	70	130			
Isopentane		1.04	Mol %	0.01	104	70	130			
n-Pentane		1.05	Mol %	0.01	105	70	130			
Hexanes plus		0.77	Mol %	0.01	96	70	130			

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit



Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 800.735.4489 • Casper, WY 888.235.0515  
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

# Work Order Receipt Checklist

Hall Environmental

B23010674

Login completed by: Yvonna E. Smith

Date Received: 1/11/2023

Reviewed by: tedwards

Received by: htm

Reviewed Date: 1/16/2023

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	11.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

## Contact and Corrective Action Comments:

None



## CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975  
FAX: 505-345-4107  
Website: www.hallenvironmental.com

SUB CONTRACTOR: <b>Energy Labs -Billings</b>		COMPANY: <b>Energy Laboratories</b>		PHONE: <b>(406) 869-6253</b>	FAX: <b>(406) 252-6069</b>
ADDRESS: <b>1120 South 27th Street</b>		ACCOUNT #:			
CITY, STATE, ZIP: <b>Billings, MT 59107</b>					
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE
1	2301326-001B	Influent Zone 02	TEDLAR	Air	1/5/2023 3:40:00 PM
					# CONTAINERS
					1
ANALYTICAL COMMENTS					
B23010047 VS 1/1/23 B23010074					

## SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <b>EL</b>	Date: <b>1/10/2023</b>	Time: <b>8:46 AM</b>	Received By: <b>Hayden Moore</b>	Date: <b>1/11/23</b>	Time: <b>9:15</b>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
TAT: <input checked="" type="checkbox"/> Standard		RUSH		Next BD <input type="checkbox"/>	2nd BD <input type="checkbox"/>
				3rd BD <input type="checkbox"/>	
REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE					
FOR LAB USE ONLY					
Temp of samples _____ °C Attempt to Cool? _____					
Comments: _____					

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2301326

23-Jan-23

**Client:** Harvest  
**Project:** Florance GC J16A

Sample ID: <b>2301326-001adup</b>		SampType: <b>DUP</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>						
Client ID: <b>Influent Zone 02</b>		Batch ID: <b>R93871</b>		RunNo: <b>93871</b>						
Prep Date:		Analysis Date: <b>1/11/2023</b>		SeqNo: <b>3389959</b>		Units: <b>µg/L</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.50						4.89	20	
Toluene	1.8	0.50						2.24	20	
Ethylbenzene	ND	0.50						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.50						0	20	
1,2,4-Trimethylbenzene	ND	0.50						0	20	
1,3,5-Trimethylbenzene	0.76	0.50						0.531	20	
1,2-Dichloroethane (EDC)	ND	0.50						0	20	
1,2-Dibromoethane (EDB)	ND	0.50						0	20	
Naphthalene	ND	1.0						0	20	
1-Methylnaphthalene	ND	2.0						0	20	
2-Methylnaphthalene	ND	2.0						0	20	
Acetone	ND	5.0						0	20	
Bromobenzene	ND	0.50						0	20	
Bromodichloromethane	ND	0.50						0	20	
Bromoform	ND	0.50						0	20	
Bromomethane	ND	1.0						0	20	
2-Butanone	ND	5.0						0	20	
Carbon disulfide	ND	5.0						0	20	
Carbon tetrachloride	ND	0.50						0	20	
Chlorobenzene	ND	0.50						0	20	
Chloroethane	ND	1.0						0	20	
Chloroform	ND	0.50						0	20	
Chloromethane	ND	0.50						0	20	
2-Chlorotoluene	ND	0.50						0	20	
4-Chlorotoluene	ND	0.50						0	20	
cis-1,2-DCE	ND	0.50						0	20	
cis-1,3-Dichloropropene	ND	0.50						0	20	
1,2-Dibromo-3-chloropropane	ND	1.0						0	20	
Dibromochloromethane	ND	0.50						0	20	
Dibromomethane	ND	1.0						0	20	
1,2-Dichlorobenzene	ND	0.50						0	20	
1,3-Dichlorobenzene	ND	0.50						0	20	
1,4-Dichlorobenzene	ND	0.50						0	20	
Dichlorodifluoromethane	ND	0.50						0	20	
1,1-Dichloroethane	ND	0.50						0	20	
1,1-Dichloroethene	ND	0.50						0	20	
1,2-Dichloropropane	ND	0.50						0	20	
1,3-Dichloropropane	ND	0.50						0	20	
2,2-Dichloropropane	ND	0.50						0	20	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 3 of 5



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2301326

23-Jan-23

**Client:** Harvest  
**Project:** Florance GC J16A

Sample ID: <b>2301326-001adup</b>		SampType: <b>DUP</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>						
Client ID: <b>Influent Zone 02</b>		Batch ID: <b>R93871</b>		RunNo: <b>93871</b>						
Prep Date:		Analysis Date: <b>1/11/2023</b>		SeqNo: <b>3389959</b>		Units: <b>µg/L</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.50						0	20	
Hexachlorobutadiene	ND	0.50						0	20	
2-Hexanone	ND	5.0						0	20	
Isopropylbenzene	ND	0.50						0	20	
4-Isopropyltoluene	ND	0.50						0	20	
4-Methyl-2-pentanone	ND	5.0						0	20	
Methylene chloride	ND	1.5						0	20	
n-Butylbenzene	ND	1.5						0	20	
n-Propylbenzene	ND	0.50						0	20	
sec-Butylbenzene	ND	0.50						0	20	
Styrene	ND	0.50						0	20	
tert-Butylbenzene	ND	0.50						0	20	
1,1,1,2-Tetrachloroethane	ND	0.50						0	20	
1,1,2,2-Tetrachloroethane	ND	0.50						0	20	
Tetrachloroethene (PCE)	ND	0.50						0	20	
trans-1,2-DCE	ND	0.50						0	20	
trans-1,3-Dichloropropene	ND	0.50						0	20	
1,2,3-Trichlorobenzene	ND	0.50						0	20	
1,2,4-Trichlorobenzene	ND	0.50						0	20	
1,1,1-Trichloroethane	ND	0.50						0	20	
1,1,2-Trichloroethane	ND	0.50						0	20	
Trichloroethene (TCE)	ND	0.50						0	20	
Trichlorofluoromethane	ND	0.50						0	20	
1,2,3-Trichloropropane	ND	1.0						0	20	
Vinyl chloride	ND	0.50						0	20	
Xylenes, Total	4.8	0.75						2.70	20	
Surr: Dibromofluoromethane	5.1		5.000		103	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	4.7		5.000		93.8	70	130	0	0	
Surr: Toluene-d8	5.8		5.000		115	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.0		5.000		100	70	130	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2301326

23-Jan-23

Client: Harvest

Project: Florance GC J16A

Sample ID: 2301326-001adup		SampType: DUP			TestCode: EPA Method 8015D: Gasoline Range					
Client ID: Influent Zone 02		Batch ID: G93871			RunNo: 93871					
Prep Date:		Analysis Date: 1/11/2023			SeqNo: 3389985		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1500	25						2.32	20	
Surr: BFB	4800		5000		96.7	70	130	0	0	

- Qualifiers:
- \*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Harvest

Work Order Number: 2301326

RcptNo: 1

Received By: Juan Rojas

1/10/2023 7:30:00 AM

*[Signature]*

Completed By: Sean Livingston

1/10/2023 8:44:55 AM

*[Signature]*

Reviewed By: *[Signature]* 1/10/23

## Chain of Custody

1. Is Chain of Custody complete? Yes ☐ No ☒ Not Present ☐
2. How was the sample delivered? Courier

## Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☐ No ☐ NA ☒
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: *KPG 1-10-23*

## Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

## 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	NA	Good				

## Chain-of-Custody Record

Client: Harvest Midstream

Attn: Oakley Hayes

**Mailing Address:**

Phone #:

email or Fax#:

QA/QC Package:

☒ Standard

Accreditation: ☐ Az Compliance

☐ NELAC      ☐ Other

☒ EDD (Type) PDF

--	--	--	--

Date	Time	Matrix	Sample Name
------	------	--------	-------------

15-72	15-48	15-48
-------	-------	-------

1-5-23	15:40	Air	Influent Zone 02
--------	-------	-----	------------------

Type and #

2.11

Container Preservative

Type and #

HEAL No.

01270

40

G

Date:	Time:	Relinquished by:
-------	-------	------------------

121

Date: 1/22	Time:	Relinquished by:
------------	-------	------------------

1001

Received by:	Via:	Date	Time
--------------	------	------	------

11

Received by:	Via:	Date	Time
--------------	------	------	------

2

Remarks:	
----------	--

**CONTAINS:**

[illegible]

100

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Population (millions)	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5
GDP (trillion USD)	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5
Life expectancy (years)	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Urban population (%)	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Renewable energy (%)	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
Carbon emissions (Gt CO2e)	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5
Forest cover (%)	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Water stress (%)	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Healthcare expenditure (%)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Education expenditure (%)	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14
Unemployment (%)	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	15.5	16
Income inequality (Gini index)	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Digital literacy (%)	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	100	100
Gender inequality index	0.75	0.76	0.77	0.78	0.79	0.80	0.81	0.82	0.83	0.84	0.85	0.86	0.87	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95
Trust in government (%)	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Corruption index	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Peace index	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Human Development Index	0.70	0.72	0.74	0.76	0.78	0.80	0.82	0.84	0.86	0.88	0.90	0.92	0.94	0.96	0.98	1.00	1.02	1.04	1.06	1.08	1.10
Environmental quality index	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Social inequality index	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.4				

sunburns

e corso

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[illegible]

0

3.

1

[illegible]

ensemble

3

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 181124

CONDITIONS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID:
	373888
	Action Number: 181124
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the Florance Gas Com J No. 16A 2022 Fourth Quarter Remediation System Operation and Monitoring Report: Content Satisfactory 1.Continue to operate the DPE system and conduct O&M as prescribed in this report. 2. Collect air sample and analyze per 8260 EPA Method. 3. Submit next quarterly report(s) in calendar year 2024, no later than 60 days after quarter end.	5/10/2024