



December 22, 2020

Cory Smith  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos  
Aztec, New Mexico 87410  
Via email to [cory.smith@state.nm.us](mailto:cory.smith@state.nm.us)

**Permanent closure approved for incident  
#: NAUTOFAB000433 - Nelson Velez  
Environmental Specialist - Adv NV  
12/28/2021**

**RE: CLOSURE REPORT  
O’Shea #1M Release  
Order No. 3RP-337  
Incident No. NAUTOFAB000433  
SE¼ NW¼, Section 3, T31N, R13W  
San Juan County, New Mexico**

Dear Mr. Smith:

Animas Environmental Services, LLC (AES) on behalf of Harvest Midstream Company (Harvest) completed groundwater confirmation sampling at the O’Shea #1M release location on October 12 and December 4, 2020. Sampling of the remaining well, MW-2, was requested by the New Mexico Oil Conservation Division (NMOCD) as part of working toward site closure. The site location is included on Figure 1 – Topographic Site Location Map and on Figure 2 – Groundwater Sample Locations and Results.

## 1.0 Site Information

### 1.1 Location

Site Name – O’Shea #1M  
Legal Description – SE¼ NW¼, Section 3, T31N, R13W, San Juan County, New Mexico  
Land Jurisdiction – Private  
Figure 1. Topographic Site Location Map  
Figure 2. Groundwater Sample Locations and Results

### 1.2 Site History

The site is located approximately one-half mile west of the La Plata River at an elevation of approximately 5,825 feet (ft) above mean sea level. In site excavations reported by the Public Service Company of New Mexico

624 E Comanche St.  
Farmington, NM 87401  
505-564-2281  
[animasenvironmental.com](http://animasenvironmental.com)

O'Shea #1M Closure Report

December 22, 2020

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(PNM) (1999), about 6 ft of clay was encountered in the subsurface. Below the clay layer, PNM reported encountering the Jackson Lake Terrace deposits. This unit is reportedly about 8 ft thick, and it is composed of gravels, cobbles and pebbles, typically forming discontinuous bands parallel to the modern San Juan and La Plata river systems.

There are three nearby ditches that exert strong control on the site's hydrology. The McDermott and Cunningham ditches lie east of the site (downhill, between the site and the river) and the Highland Park ditch lies just west of the site (uphill and away from the river). The site lies on the north side of Murphy Arroyo, which is an east-flowing intermittent stream that crosses the various ditches on its way to the La Plata River. There are several ponds covering 1 to 3 acres that are fed by the ditches, just upgradient (west) of the site.

On June 2, 1998, during a routine pit inspection, PNM identified groundwater at about 6 ft deep after the clay layer was breached and the cobble layer encountered. Water levels rose rapidly and stabilized at about 2 ft below land surface. Temporary monitor wells were installed, and subsequent visits to the site revealed that the water levels fluctuated in direct relation to the presence or absence of water in the nearby ditch systems. In October 1998 all four wells were dry, with the deepest well at 15 ft below land surface. In January 1999 water was found from 9 to 13 ft below land surface.

A groundwater sample was collected and analyzed during the June 1998 inspection, which confirmed groundwater contamination (PNM to NMOCD, June 16, 1998). PNM conducted soil remediation at the O'Shea #1M in June 1998, excavating approximately 800 cubic yards (yd<sup>3</sup>) of soil (PNM, 1999). At this time PNM also installed four four-inch diameter standpipes, screened across the water table, which were made into monitoring wells MW-1 through MW-4 on July 9, 1998 (Williams, 2000).

During groundwater sampling in the fourth quarter of 1998, 0.04 ft of free phase product was measured in MW-2 (PNM, 1999). PNM determined that the presence of free product was most likely caused by a new source and immediately contacted Chateau, the operator on site. Chateau discovered that their 300-barrel (bbl) production fluids tank was leaking and replaced the tank. The PNM report states that Chateau also conducted soil remediation, but no details of this effort were found in NMOCD records.

Periodic groundwater samples were collected from the monitor wells though March 2003. Dissolved phased volatile organic concentrations generally steadily declined over that period, and no concentrations exceeded state Water Quality Control Commission (WQCC) standards during the final sampling event. Irrigation to the surrounding field

has apparently ceased and the wells have been dry since 2003. Wells MW-1 and MW-3 through MW-5 have since been plugged and abandoned.

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## 2.0 Groundwater Sampling

In response to a NMOCD request of September 24, 2020, AES personnel, under the oversight of Harvest, mobilized on October 8, 2020, to collect samples from MW-2. However, the depth to water of 14.45 ft below grade surface (bgs), 0.06 ft above the terminal depth of the well, precluded sample collection.

On October 12, 2020, AES returned to the site, and a depth of 14.22 ft bgs was recorded at MW-2, but recharge was still insufficient. Both bailer and low flow sampling were attempted here. On the same day, two hydropunches were made at the intersecting perched groundwater layer downgradient of MW-2 and near the earth-lined irrigation canal. No water entered the first hydropunch. After purging three volumes from the second hydropunch (Hydropunch #2), samples were collected for laboratory analysis.

AES personnel remobilized to the location on December 4, 2020. Depth to water at MW-2 was 13.01 ft bgs. After purging, samples were collected for laboratory analysis.

### 2.1 Laboratory Analyses

The samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers (40-mL vials), which were then labeled, placed on ice, and logged onto sample chain of custody records. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All samples were laboratory analyzed for:

- Full list volatile organics (VOCs) per U.S. Environmental Protection Agency (USEPA) Method 8260B.

In addition, sample Hydropunch #2 was analyzed for:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics (GRO) and diesel-range organics (DRO) per USEPA Method 8015M/D.

### 2.2 Laboratory Analytical Results

All laboratory analytical results were below laboratory detection limits and applicable NM Water Quality Control Commission (WQCC) standards for individual VOCs. Hydropunch #2 TPH as DRO equaled the detection limit of 1.0 mg/L and TPH as GRO was

below the detection limit. Laboratory results are included in Table 1, and the laboratory analytical reports are attached.

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### 3.0 Conclusions

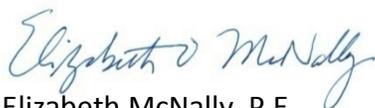
AES completed groundwater sampling at the O'Shea #1M release location in October and December 2020. Laboratory analytical results at both Hydropunch #2 and MW-2 reported VOC concentrations in all samples as *below* applicable WQCC standards. TPH as DRO equaled the detection limit of 1.0 mg/L and TPH as GRO was below the detection limit. On behalf of Harvest, AES requests permission to plug and abandon MW-2 and for NMOCD to grant closure for this incident and site.

If you have any questions about this report or site conditions, please do not hesitate to contact Elizabeth McNally at (505) 564-2281.

Sincerely,



David J. Reese  
Environmental Scientist



Elizabeth McNally, P.E.

#### Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Groundwater Sample Locations and Results
- Table 1. Well VOC Lab Data
- Hall Analytical Reports 2010598 and 2012302
- Water Sample Collection Field Notes

Cc:

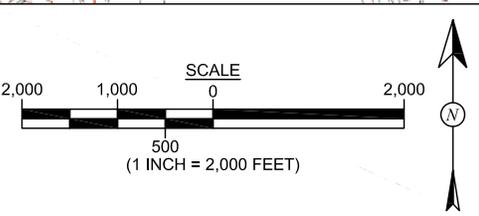
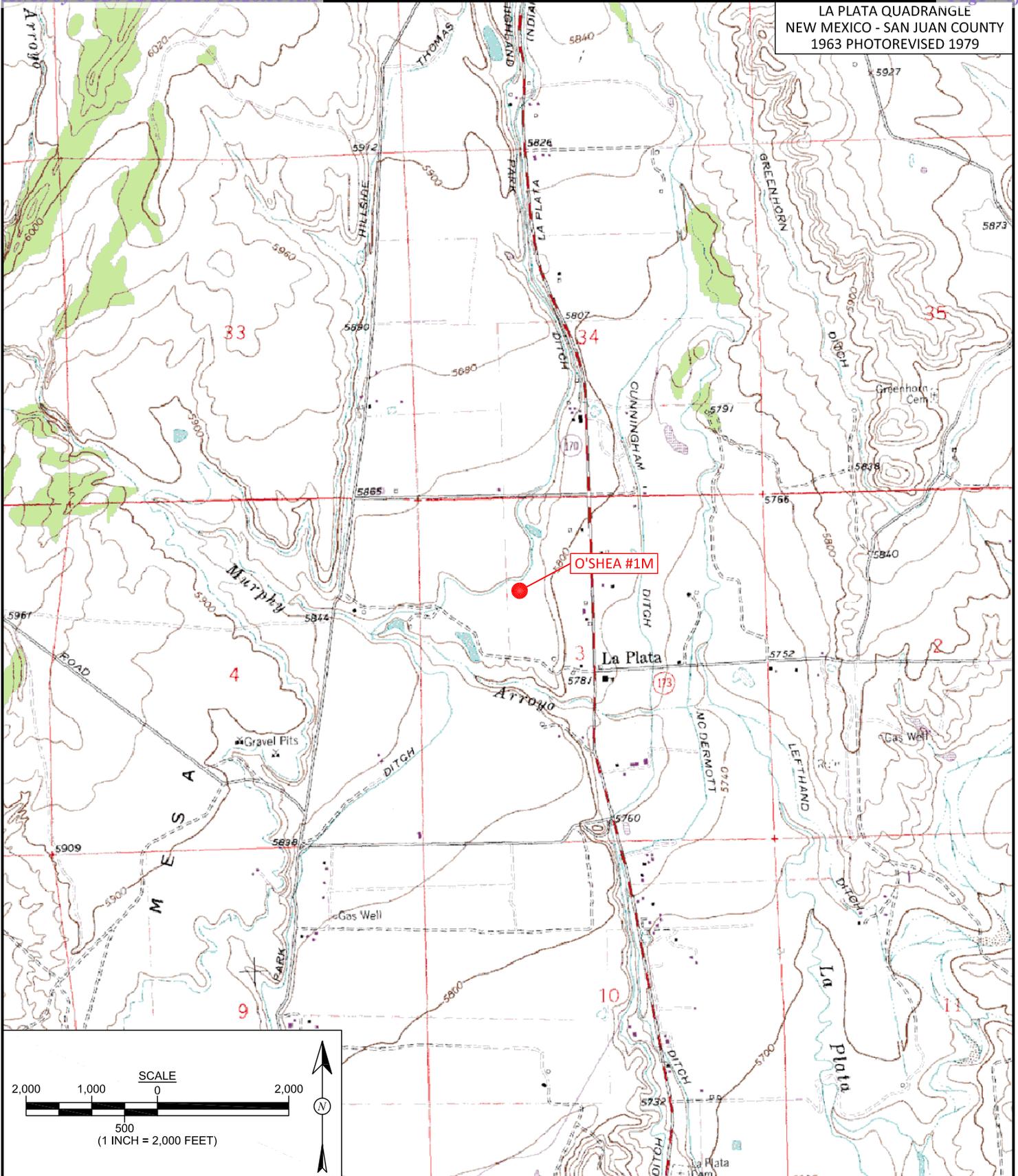
Monica Smith  
Harvest Midstream Company  
1755 Arroyo Dr.  
Bloomfield, New Mexico 87413  
Email: [msmith@harvestmidstream.com](mailto:msmith@harvestmidstream.com)

<https://animasenvironmental.sharepoint.com/sites/HarvestMidstream/Shared Documents/Oshea 1M/Reports/20201222 O'Shea 1M Closure Report.docx>

## Attachments

## Figures

LA PLATA QUADRANGLE  
NEW MEXICO - SAN JUAN COUNTY  
1963 PHOTOREVISED 1979



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> October 22, 2020
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 22, 2020
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> October 22, 2020
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 22, 2020

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 HARVEST MIDSTREAM  
 O'SHEA #1M  
 API: 30-045-23618  
 SE¼, NW¼, SECTION 3, T31N, R13W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.932213, W108.193857

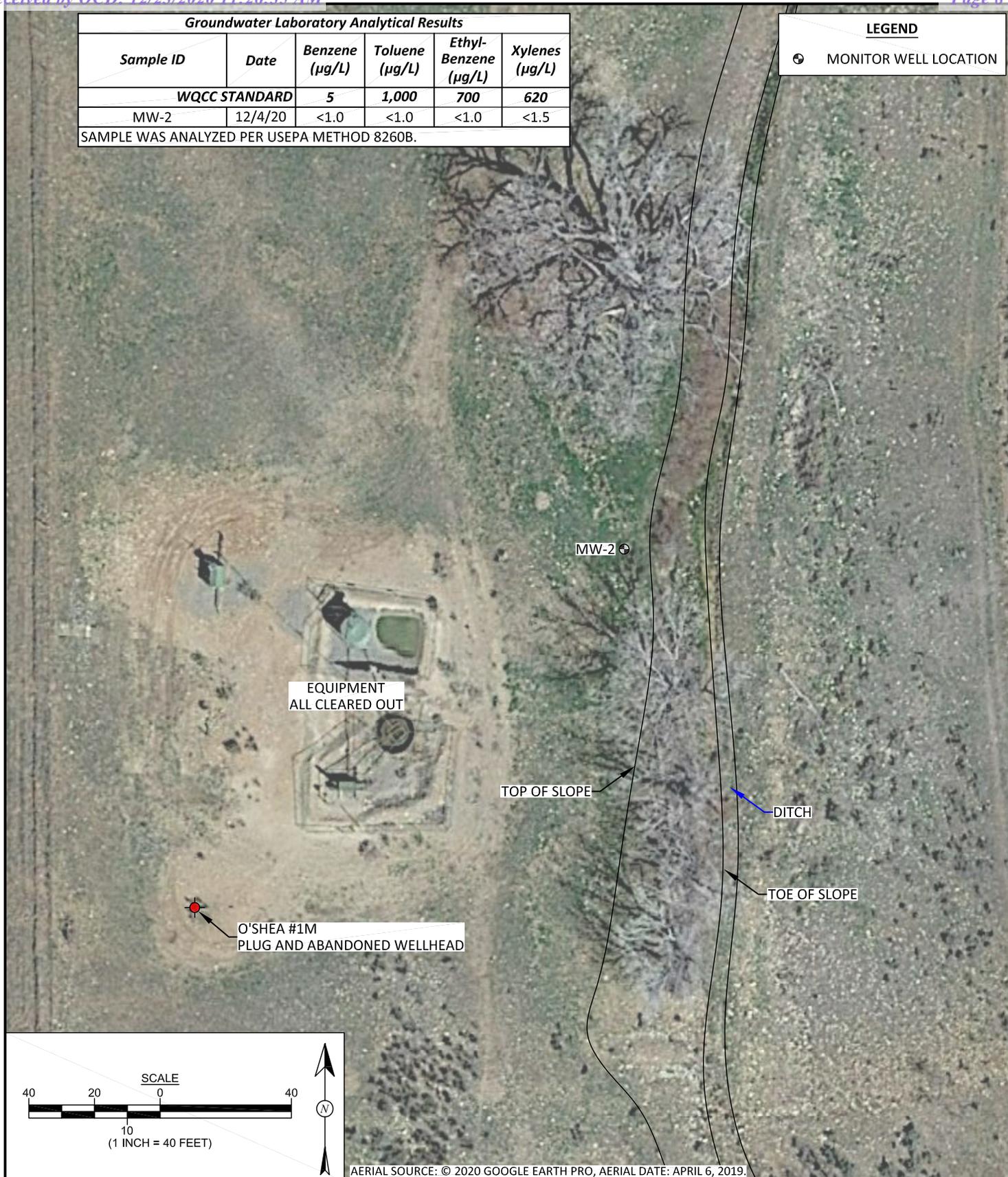


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Groundwater Laboratory Analytical Results					
Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)
<b>WQCC STANDARD</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>
MW-2	12/4/20	<1.0	<1.0	<1.0	<1.5

SAMPLE WAS ANALYZED PER USEPA METHOD 8260B.

LEGEND	
	MONITOR WELL LOCATION



AERIAL SOURCE: © 2020 GOOGLE EARTH PRO, AERIAL DATE: APRIL 6, 2019.



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<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> October 22, 2020
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> December 16, 2020
<b>CHECKED BY:</b> A. Ledgerwood	<b>DATE CHECKED:</b> December 16, 2020
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 16, 2020

## FIGURE 2

**GROUNDWATER SAMPLE LOCATION AND RESULTS, DECEMBER 2020**  
 HARVEST MIDSTREAM  
 O'SHEA #1M  
 API: 30-045-23618  
 SE¼, NW¼, SECTION 3, T31N, R13W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.932213, W108.193857

## Tables

TABLE 1  
 SUMMARY OF GROUNDWATER VOLATILE ORGANIC COMPOUNDS (VOCs)  
 O'Shea #1M Release, SE1/4 NW 1/4, S3, T31N, R13W, San Juan Co., NM  
 Order No. 3RP-337, Incident No. NAUTOFAB000433

Well ID	Date	Analytical Method	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB (µg/L)	Total Naphthalene* (µg/L)
<b>NM WQCC STANDARD</b>			<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>	<b>100</b>	<b>5</b>	<b>0.05</b>	<b>30</b>
<b>MW-1</b>	24-May-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	6-Aug-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	12-Oct-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	3-Feb-00	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	9-May-00	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	6-Dec-02	--	ND	ND	ND	5.6	NM	NM	NM	NM
	24-Mar-03	--	ND	ND	ND	ND	NM	NM	NM	NM
<b>MW-2</b>	24-May-99	--	<b>220</b>	460	340	<b>5020</b>	NM	NM	NM	NM
	6-Aug-99	--	<b>100</b>	120	250	<b>3577</b>	NM	NM	NM	NM
	12-Oct-99	--	<b>140</b>	700	330	<b>3870</b>	NM	NM	NM	NM
	3-Feb-00	--	<b>170</b>	780	370	<b>3200</b>	NM	NM	NM	NM
	9-May-00	--	<b>9</b>	17	260	<b>3460</b>	NM	NM	NM	NM
	1-Nov-00	--	<b>89.9</b>	46.5	333	<b>3050</b>	NM	NM	NM	NM
	1-Nov-00	--	<b>96.3</b>	52.2	370	<b>4010</b>	NM	NM	NM	NM
	3-Jan-01	--	<b>26.9</b>	58.8	311	<b>2680</b>	NM	NM	NM	NM
	5-Apr-01	--	<b>12.4</b>	39.8	182	<b>846</b>	NM	NM	NM	NM
	1-Oct-01	--	3.7	< 2.0	71	<b>630</b>	NM	NM	NM	NM
	21-Mar-02	--	<b>5.8</b>	ND	57	150	NM	NM	NM	NM
	13-Jun-02	--	<b>8.3</b>	32	59	150	NM	NM	NM	NM
	6-Dec-02	--	2.5	2.5	85	380	NM	NM	NM	NM
	24-Mar-03	--	ND	12	6.3	8.0	NM	NM	NM	NM
	4-Dec-20	8260B	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0

TABLE 1  
SUMMARY OF GROUNDWATER VOLATILE ORGANIC COMPOUNDS (VOCs)  
O'Shea #1M Release, SE1/4 NW 1/4, S3, T31N, R13W, San Juan Co., NM  
Order No. 3RP-337, Incident No. NAUTOFAB000433

Well ID	Date	Analytical Method	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-Benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	EDC ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )	Total Naphthalene* ( $\mu\text{g/L}$ )
<b>NM WQCC STANDARD</b>			<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>	<b>100</b>	<b>5</b>	<b>0.05</b>	<b>30</b>
<b>MW-3</b>	24-May-99	--	<b>150</b>	< 5	190	<b>648</b>	NM	NM	NM	NM
	6-Aug-99	--	<b>19</b>	< 0.5	82	218	NM	NM	NM	NM
	12-Oct-99	--	< 0.5	2	7	33	NM	NM	NM	NM
	3-Feb-00	--	<b>11</b>	< 0.5	8	28	NM	NM	NM	NM
	9-May-00	--	<b>10</b>	< 0.5	65	106	NM	NM	NM	NM
	1-Nov-00	--	3.78	< 1	10.4	5.65	NM	NM	NM	NM
	3-Jan-01	--	4.23	45.1	1.92	20.8	NM	NM	NM	NM
	5-Apr-01	--	1.85	19.2	5.81	7.37	NM	NM	NM	NM
	1-Oct-01	--	< 1.0	< 2.0	< 2.0	< 2.0	NM	NM	NM	NM
	21-Mar-02	--	2.5	ND	ND	ND	NM	NM	NM	NM
	13-Jun-02	--	2.0	ND	ND	8.2	NM	NM	NM	NM
	24-Mar-03	--	ND	ND	ND	ND	NM	NM	NM	NM
<b>MW-4</b>	24-May-99	--	1.4	0.5	2.9	4.6	NM	NM	NM	NM
	6-Aug-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	12-Oct-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	3-Feb-00	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	9-May-00	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	6-Dec-02	--	ND	ND	ND	ND	NM	NM	NM	NM
	24-Mar-03	--	ND	ND	ND	ND	NM	NM	NM	NM

TABLE 1  
 SUMMARY OF GROUNDWATER VOLATILE ORGANIC COMPOUNDS (VOCs)  
 O'Shea #1M Release, SE1/4 NW 1/4, S3, T31N, R13W, San Juan Co., NM  
 Order No. 3RP-337, Incident No. NAUTOFAB000433

Well ID	Date	Analytical Method	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB (µg/L)	Total Naphthalene* (µg/L)
<b>NM WQCC STANDARD</b>			<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>	<b>100</b>	<b>5</b>	<b>0.05</b>	<b>30</b>
<b>MW-5</b>	24-May-99	--	<b>140</b>	< 5	180	615	NM	NM	NM	NM
	6-Aug-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	12-Oct-99	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	3-Feb-00	--	< 0.5	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	9-May-00	--	3.1	< 0.5	< 0.5	< 1.5	NM	NM	NM	NM
	6-Dec-02	--	ND	ND	ND	ND	NM	NM	NM	NM
	24-Mar-03	--	ND	ND	ND	ND	NM	NM	NM	NM
<b>Hydropunch #2</b>	8-Oct-20	8260B	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<10.0

- Notes:**
- < Analyte not detected above listed method limit
  - \* Total Naphthalene includes: Naphthalene, 1- and 2-methylnaphthalene
  - MTBE Methyl tert-butyl ether
  - EDC 1,2-Dichloroethane
  - EDB 1,2-Dibromoethane
  - NM Not Measured

## Laboratory Analytical Reports



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

October 20, 2020

Karen Lupton  
Animas Environmental Services  
624 E. Comanche  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX: (505) 324-2022

RE: Harvest Midstream O'Shea 1M

OrderNo.: 2010598

Dear Karen Lupton:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/13/2020 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 2010598

Date Reported: 10/20/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: Hydropunch #2

Project: Harvest Midstream O'Shea 1M

Collection Date: 10/12/2020 12:09:00 PM

Lab ID: 2010598-001

Matrix: AQUEOUS

Received Date: 10/13/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/17/2020 3:17:00 PM	G72725
Surr: BFB	98.4	70-130		%Rec	1	10/17/2020 3:17:00 PM	G72725
<b>EPA METHOD 8015M/D: DIESEL RANGE</b>							Analyst: BRM
Diesel Range Organics (DRO)	1.0	1.0		mg/L	1	10/16/2020 2:10:47 PM	55865
Surr: DNOP	118	70-130		%Rec	1	10/16/2020 2:10:47 PM	55865
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Toluene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Ethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Naphthalene	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1-Methylnaphthalene	ND	4.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
2-Methylnaphthalene	ND	4.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Acetone	ND	10		µg/L	1	10/17/2020 3:17:00 PM	W72725
Bromobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Bromodichloromethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Bromoform	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Bromomethane	ND	3.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
2-Butanone	ND	10		µg/L	1	10/17/2020 3:17:00 PM	W72725
Carbon disulfide	ND	10		µg/L	1	10/17/2020 3:17:00 PM	W72725
Carbon Tetrachloride	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Chlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Chloroethane	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Chloroform	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Chloromethane	ND	3.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
2-Chlorotoluene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
4-Chlorotoluene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
cis-1,2-DCE	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Dibromochloromethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Dibromomethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725

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

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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 range due to dilution or matrix		

**Analytical Report**

Lab Order **2010598**

Date Reported: **10/20/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Hydropunch #2

**Project:** Harvest Midstream O'Shea 1M

**Collection Date:** 10/12/2020 12:09:00 PM

**Lab ID:** 2010598-001

**Matrix:** AQUEOUS

**Received Date:** 10/13/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1-Dichloroethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1-Dichloroethene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2-Dichloropropane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,3-Dichloropropane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
2,2-Dichloropropane	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Hexachlorobutadiene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
2-Hexanone	ND	10		µg/L	1	10/17/2020 3:17:00 PM	W72725
Isopropylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
4-Isopropyltoluene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
4-Methyl-2-pentanone	ND	10		µg/L	1	10/17/2020 3:17:00 PM	W72725
Methylene Chloride	ND	3.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
n-Butylbenzene	ND	3.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
n-Propylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
sec-Butylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Styrene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
tert-Butylbenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
trans-1,2-DCE	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Trichlorofluoromethane	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Vinyl chloride	ND	1.0		µg/L	1	10/17/2020 3:17:00 PM	W72725
Xylenes, Total	ND	1.5		µg/L	1	10/17/2020 3:17:00 PM	W72725
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	10/17/2020 3:17:00 PM	W72725
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/17/2020 3:17:00 PM	W72725
Surr: Dibromofluoromethane	93.6	70-130		%Rec	1	10/17/2020 3:17:00 PM	W72725
Surr: Toluene-d8	93.8	70-130		%Rec	1	10/17/2020 3:17:00 PM	W72725

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	Value above quantitation range
	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 range due to dilution or matrix		

## Analytical Report

Lab Order 2010598

Date Reported: 10/20/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: Trip Blank

Project: Harvest Midstream O'Shea 1M

Collection Date:

Lab ID: 2010598-002

Matrix: TRIP BLANK

Received Date: 10/13/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Toluene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Ethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Naphthalene	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1-Methylnaphthalene	ND	4.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
2-Methylnaphthalene	ND	4.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Acetone	ND	10		µg/L	1	10/17/2020 3:47:28 PM	W72725
Bromobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Bromodichloromethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Bromoform	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Bromomethane	ND	3.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
2-Butanone	ND	10		µg/L	1	10/17/2020 3:47:28 PM	W72725
Carbon disulfide	ND	10		µg/L	1	10/17/2020 3:47:28 PM	W72725
Carbon Tetrachloride	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Chlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Chloroethane	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Chloroform	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Chloromethane	ND	3.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
2-Chlorotoluene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
4-Chlorotoluene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
cis-1,2-DCE	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Dibromochloromethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Dibromomethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1-Dichloroethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1-Dichloroethene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2-Dichloropropane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,3-Dichloropropane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
2,2-Dichloropropane	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725

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	Value above quantitation range
	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 range due to dilution or matrix		

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**Analytical Report**

Lab Order **2010598**

Date Reported: **10/20/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Trip Blank

**Project:** Harvest Midstream O'Shea 1M

**Collection Date:**

**Lab ID:** 2010598-002

**Matrix:** TRIP BLANK

**Received Date:** 10/13/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>
1,1-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Hexachlorobutadiene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
2-Hexanone	ND	10		µg/L	1	10/17/2020 3:47:28 PM	W72725
Isopropylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
4-Isopropyltoluene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
4-Methyl-2-pentanone	ND	10		µg/L	1	10/17/2020 3:47:28 PM	W72725
Methylene Chloride	ND	3.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
n-Butylbenzene	ND	3.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
n-Propylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
sec-Butylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Styrene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
tert-Butylbenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
trans-1,2-DCE	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Trichlorofluoromethane	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Vinyl chloride	ND	1.0		µg/L	1	10/17/2020 3:47:28 PM	W72725
Xylenes, Total	ND	1.5		µg/L	1	10/17/2020 3:47:28 PM	W72725
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%Rec	1	10/17/2020 3:47:28 PM	W72725
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	10/17/2020 3:47:28 PM	W72725
Surr: Dibromofluoromethane	98.1	70-130		%Rec	1	10/17/2020 3:47:28 PM	W72725
Surr: Toluene-d8	92.8	70-130		%Rec	1	10/17/2020 3:47:28 PM	W72725

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	Value above quantitation range
	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 range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2010598

20-Oct-20

**Client:** Animas Environmental Services

**Project:** Harvest Midstream O'Shea 1M

Sample ID: <b>LCS-55865</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>55865</b>		RunNo: <b>72701</b>							
Prep Date: <b>10/16/2020</b>	Analysis Date: <b>10/16/2020</b>		SeqNo: <b>2554105</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	115	70	130			
Surr: DNOP	0.67		0.5000		133	70	130			S

Sample ID: <b>MB-55865</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range</b>							
Client ID: <b>PBW</b>	Batch ID: <b>55865</b>		RunNo: <b>72701</b>							
Prep Date: <b>10/16/2020</b>	Analysis Date: <b>10/16/2020</b>		SeqNo: <b>2554106</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.2		1.000		118	70	130			

**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 range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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

WO#: 2010598

20-Oct-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream O'Shea 1M

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>W72725</b>	RunNo: <b>72725</b>								
Prep Date:	Analysis Date: <b>10/17/2020</b>	SeqNo: <b>2554384</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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 6 of 9

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

WO#: 2010598

20-Oct-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream O'Shea 1M

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>PBW</b>	Batch ID: <b>W72725</b>		RunNo: <b>72725</b>							
Prep Date:	Analysis Date: <b>10/17/2020</b>		SeqNo: <b>2554384</b>		Units: <b>µg/L</b>					
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	9.5		10.00		94.6	70	130			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>W72725</b>		RunNo: <b>72725</b>							
Prep Date:	Analysis Date: <b>10/17/2020</b>		SeqNo: <b>2554385</b>		Units: <b>µg/L</b>					
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	19	1.0	20.00	0	97.2	70	130			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2010598

20-Oct-20

**Client:** Animas Environmental Services

**Project:** Harvest Midstream O'Shea 1M

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>W72725</b>	RunNo: <b>72725</b>								
Prep Date:	Analysis Date: <b>10/17/2020</b>	SeqNo: <b>2554385</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18	1.0	20.00	0	92.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.2		10.00		92.1	70	130			

**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 range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2010598

20-Oct-20

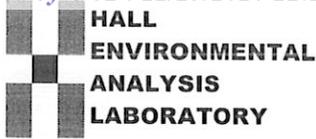
**Client:** Animas Environmental Services  
**Project:** Harvest Midstream O'Shea 1M

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBW</b>	Batch ID: <b>G72725</b>		RunNo: <b>72725</b>							
Prep Date:	Analysis Date: <b>10/17/2020</b>		SeqNo: <b>2554411</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		100	70	130			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>G72725</b>		RunNo: <b>72725</b>							
Prep Date:	Analysis Date: <b>10/17/2020</b>		SeqNo: <b>2554412</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	88.2	70	130			
Surr: BFB	9.6		10.00		96.0	70	130			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| 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 range due to dilution or matrix |   |



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

Sample Log-In Check List

Client Name: Animas Environmental Services Work Order Number: 2010598 RcptNo: 1

Received By: Cheyenne Cason 10/13/2020 8:00:00 AM

Completed By: Emily Mocho 10/13/2020 9:45:45 AM

Reviewed By: JR 10/13/20

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [checked] No [ ] NA [ ]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: SPA 10.13.20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: Date: By Whom: Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person Regarding: Client Instructions:

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 5.8, Good, Yes, , ,





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

December 15, 2020

Angela Ledgerwood  
Animas Environmental Services  
624 E. Comanche  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX: (505) 324-2022

RE: Harvest Midstream OShea 1M

OrderNo.: 2012302

Dear Angela Ledgerwood:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/5/2020 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 **2012302**

Date Reported: **12/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** 20201204-TB

**Project:** Harvest Midstream OShea 1M

**Collection Date:**

**Lab ID:** 2012302-001

**Matrix:** TRIP BLANK

**Received Date:** 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Toluene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Ethylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Naphthalene	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
2-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Acetone	ND	10		µg/L	1	12/7/2020 11:44:40 PM	R73856
Bromobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Bromodichloromethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Bromoform	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Bromomethane	ND	3.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
2-Butanone	ND	10		µg/L	1	12/7/2020 11:44:40 PM	R73856
Carbon disulfide	ND	10		µg/L	1	12/7/2020 11:44:40 PM	R73856
Carbon Tetrachloride	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Chlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Chloroethane	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Chloroform	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Chloromethane	ND	3.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
2-Chlorotoluene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
4-Chlorotoluene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
cis-1,2-DCE	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Dibromochloromethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Dibromomethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1-Dichloroethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1-Dichloroethene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2-Dichloropropane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,3-Dichloropropane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
2,2-Dichloropropane	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856

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	Value above quantitation range
	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 range due to dilution or matrix		

## Analytical Report

Lab Order 2012302

Date Reported: 12/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental Services

Client Sample ID: 20201204-TB

Project: Harvest Midstream OShea 1M

Collection Date:

Lab ID: 2012302-001

Matrix: TRIP BLANK

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
1,1-Dichloropropene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Hexachlorobutadiene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
2-Hexanone	ND	10		µg/L	1	12/7/2020 11:44:40 PM	R73856
Isopropylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
4-Isopropyltoluene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
4-Methyl-2-pentanone	ND	10		µg/L	1	12/7/2020 11:44:40 PM	R73856
Methylene Chloride	ND	3.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
n-Butylbenzene	ND	3.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
n-Propylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
sec-Butylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Styrene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
tert-Butylbenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
trans-1,2-DCE	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Trichlorofluoromethane	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Vinyl chloride	ND	1.0		µg/L	1	12/7/2020 11:44:40 PM	R73856
Xylenes, Total	ND	1.5		µg/L	1	12/7/2020 11:44:40 PM	R73856
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%Rec	1	12/7/2020 11:44:40 PM	R73856
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	12/7/2020 11:44:40 PM	R73856
Surr: Dibromofluoromethane	103	70-130		%Rec	1	12/7/2020 11:44:40 PM	R73856
Surr: Toluene-d8	91.5	70-130		%Rec	1	12/7/2020 11:44:40 PM	R73856

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

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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 range due to dilution or matrix		

Page 2 of 7

## Analytical Report

Lab Order 2012302

Date Reported: 12/15/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: 20201204-OSHEA-MW-2

Project: Harvest Midstream OShea 1M

Collection Date: 12/4/2020 11:17:00 AM

Lab ID: 2012302-002

Matrix: GROUNDWA

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Toluene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Ethylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Naphthalene	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Acetone	ND	10		µg/L	1	12/8/2020 12:11:46 AM	R73856
Bromobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Bromoform	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Bromomethane	ND	3.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
2-Butanone	ND	10		µg/L	1	12/8/2020 12:11:46 AM	R73856
Carbon disulfide	ND	10		µg/L	1	12/8/2020 12:11:46 AM	R73856
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Chlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Chloroethane	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Chloroform	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Chloromethane	ND	3.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Dibromomethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856

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

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix		

Page 3 of 7

**Analytical Report**

Lab Order **2012302**

Date Reported: **12/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** 20201204-OSHEA-MW-2

**Project:** Harvest Midstream OShea 1M

**Collection Date:** 12/4/2020 11:17:00 AM

**Lab ID:** 2012302-002

**Matrix:** GROUNDWA

**Received Date:** 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
2-Hexanone	ND	10		µg/L	1	12/8/2020 12:11:46 AM	R73856
Isopropylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2020 12:11:46 AM	R73856
Methylene Chloride	ND	3.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
n-Propylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Styrene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Vinyl chloride	ND	1.0		µg/L	1	12/8/2020 12:11:46 AM	R73856
Xylenes, Total	ND	1.5		µg/L	1	12/8/2020 12:11:46 AM	R73856
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	1	12/8/2020 12:11:46 AM	R73856
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	12/8/2020 12:11:46 AM	R73856
Surr: Dibromofluoromethane	104	70-130		%Rec	1	12/8/2020 12:11:46 AM	R73856
Surr: Toluene-d8	95.7	70-130		%Rec	1	12/8/2020 12:11:46 AM	R73856

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	Value above quantitation range
	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 range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2012302

15-Dec-20

**Client:** Animas Environmental Services

**Project:** Harvest Midstream OShea 1M

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>
Client ID: <b>PBW</b>	Batch ID: <b>R73856</b>	RunNo: <b>73856</b>
Prep Date:	Analysis Date: <b>12/7/2020</b>	SeqNo: <b>2604486</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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

**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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2012302

15-Dec-20

**Client:** Animas Environmental Services

**Project:** Harvest Midstream OShea 1M

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R73856</b>		RunNo: <b>73856</b>							
Prep Date:	Analysis Date: <b>12/7/2020</b>		SeqNo: <b>2604486</b>		Units: <b>µg/L</b>					
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R73856</b>		RunNo: <b>73856</b>							
Prep Date:	Analysis Date: <b>12/7/2020</b>		SeqNo: <b>2604487</b>		Units: <b>µg/L</b>					
Benzene	18	1.0	20.00	0	90.1	70	130			
Toluene	19	1.0	20.00	0	94.9	70	130			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			

**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 range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2012302

15-Dec-20

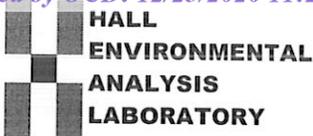
**Client:** Animas Environmental Services

**Project:** Harvest Midstream OShea 1M

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R73856</b>	RunNo: <b>73856</b>								
Prep Date:	Analysis Date: <b>12/7/2020</b>	SeqNo: <b>2604487</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16	1.0	20.00	0	81.8	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.5	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.4		10.00		93.8	70	130			

**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 range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- 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: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Services
Work Order Number: 2012302
RcptNo: 1

Received By: Cheyenne Cason 12/5/2020 8:00:00 AM
Completed By: Desiree Dominguez 12/7/2020 8:24:08 AM
Reviewed By: [Signature] 12/7/20 [Signature]

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [checked] No [ ] NA [ ]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: SGL (12/7/20)

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.1, Good, Yes, [ ], [ ], [ ]



## Field Notes

**WATER SAMPLE COLLECTION FORM**

Animas Environmental Services

Monitor Well No:     MW-2    

624 E Comanche St., Farmington NM

Tel. (505) 564-2281 animasenvironmental.com

Site: O'Shea 1M

Project No.:                     

Location: 36.932213, -108.193857 (WH)

Date: 10-8-20

Project: Harvest Midstream

Arrival Time: 9:26

Sampling Technician: G. Boonmye

Air Temp: 51°F

Purge / No Purge: No Purge

T.O.C. Elev. (ft):                     

Well Diameter (in): 2"

Total Well Depth (ft): 14.52

Initial D.T.W. (ft): 14.45 Time: 9:30 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 14.45 Time: 9:32 (taken prior to purging well)

Final D.T.W. (ft):                      Time:                      (taken after sample collection)

If NAPL Present: D.T.P.: — D.T.W.: — Thickness: — Time: —

**Water Quality Parameters - Recorded During Well Purging**

YSI #      Calibration Date:     

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NO PURGE or water quality readings
							Very low yield
9:50							Samples collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

Full list per USEPA Method 8260 (5 - 40mL VOAs with HgCl2 preserve)

Disposal of Purged Water: None

Collected Samples Stored on Ice in Cooler: yes

Chain of Custody Record Complete: yes

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: very low yield. only enough water to collect samples

revised: 08/10/09







Google Earth

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100 ft



**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 13080

**CONDITIONS**

Operator: Harvest Four Corners, LLC 1111 Travis Street Houston, TX 77002	OGRID: 373888
	Action Number: 13080
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Review of the 2020 CLOSURE REPORT: Content satisfactory 1. OCD approves the permanent closure for this incident. 2. No further action is required except to properly plug and abandon any and all existing monitor wells on or around the site. Proper notification and formal submittal of this work is also required to the various regulatory bodies having any oversight authority.	12/28/2021