

REVIEWED

By Mike Buchanan at 3:28 pm, May 10, 2024



ENSOLUM

March 21, 2023

New Mexico Oil Conservation Division

New Mexico Energy, Minerals, and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

Re: 2022 Annual Groundwater Report

Dogie East Pit

Rio Arriba County, New Mexico

Harvest Four Corners, LLC

NMOCD Incident No: nAUTOfAB000124

Remediation Permit Number 3RP-312-0

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Harvest Four Corners, LLC (Harvest Four Corners), presents this report describing activities conducted at the Dogie East Pit (Site), Remediation Permit Number 3RP-312-0, between January 2022 and December 2022. The scope of work for this project was continued remediation and monitoring of petroleum hydrocarbon impacts to groundwater resulting from operation of a former lined pit used to collect drip gas and water from a condensate tank.

LOCATION

The Site is located at latitude 36.435003 and longitude 107.479499 in Unit D, Section 4, Township 25 North, Range 6 West (Figure 1). The Site is located on the west flank of Largo Wash in the San Juan Basin in Rio Arriba County, New Mexico.

HISTORY

The original source of impacted groundwater is associated with a former lined pit used to collect drip gas and water from a condensate tank. Approximately 526 cubic yards of petroleum hydrocarbon-impacted soil were removed in July 1997 and an additional 4,888 cubic yards of petroleum hydrocarbon-impacted soil were removed in October 1997. Groundwater was encountered at 14 feet below ground surface (bgs) in the excavation, and groundwater samples originally contained benzene, toluene, ethylbenzene, and total xylenes (BTEX), sulfate, and chloride concentrations exceeding the New Mexico Water Quality Control Commission (NMWQCC) standards. The excavation was left open through March 1998 and sampled again, at which time only benzene, sulfate, and chloride concentrations exceeded NMWQCC standards. The excavation was subsequently backfilled, and in May 1998, groundwater monitoring wells MW-1, MW-2, MW-3, and MW-4 were installed. In December 1998, monitoring well MW-5 and a 4-inch soil vapor extraction (SVE) well were installed and a remediation pilot test was conducted; however, SVE was never implemented as a remedial technology at the Site.

In 1999, additional downgradient monitoring wells MW-6, MW-7, MW-8, and MW-9 were installed. Williams Four Corners LLC (Williams) purchased the Gas Company of New Mexico (GCNM) facility from Public Service Company of New Mexico (PNM) in 2000, which included retaining

Review of the 2022
Annual Groundwater
Report: Content
Satisfactory

1. Continue with plans
to collect groundwater
samples semi-
annually, and gauge
depth to product
quarterly in all wells.

2. Observe PSH
quarterly and
determine if skimmer
pump may be utilized
to extract PSH from
well.

3. Propose a
remediation method to
OCD for dissolved
phase impact once
options are determined.

4. Submit the 2023
annual report (if it
hasn't already been
submitted) and the
2024 annual report by
April 1, 2025.

5. Determine the west flank of Largo Wash in the
San Juan Basin in Rio Arriba County, New Mexico.

6. Submit the 2023
annual report (if it
hasn't already been
submitted) and the
2024 annual report by
April 1, 2025.

7. Determine the west flank of Largo Wash in the
San Juan Basin in Rio Arriba County, New Mexico.

environmental liability for the former lined pit. Between 2000 and December 2012, Williams monitored groundwater in the monitoring wells at the Site and recovered phase-separated hydrocarbons (PSH) from monitoring well MW-6. Monitoring well MW-4 was observed to have been destroyed during the March 2013 site visit. It was not replaced due to its location outside the existing extent of impacted groundwater. Additionally, monitoring well MW-9 was plugged and abandoned on October 13, 2013, due to its location outside the existing extent of impacted groundwater. Williams installed four new downgradient monitoring wells (MW-10, MW-11, MW-12, and MW-13) on October 13, 2013, to further delineate the impacted groundwater plume.

On September 13, 2013, Williams collected a sample of PSH from monitoring well MW-6 for analysis of paraffins, isoparaffins, aromatics, naphthalenes, and olefins (PIANO) to identify the chemical composition of the PSH and evaluate the potential origin of the source. The source was confirmed to be natural gas condensate. On November 1, 2013, Williams conducted a PSH bail-down test at monitoring well MW-6 to assess potential product recovery options. Much of the accumulated PSH was removed during the bail-down test.

Williams installed monitoring wells MW-14, MW-15, and MW-16 on October 4 and 10, 2017, to continue delineating the groundwater impacts at the Site. On March 14, 2018, Williams installed a solar powered pneumatic PSH recovery system in monitoring well MW-6. On October 1, 2018, Harvest purchased the Site from Williams and continued the use of the solar powered pneumatic PSH recovery system in monitoring well MW-6. In August and September 2019, additional monitoring wells MW-17, MW-18, MW-19, and MW-20 were installed for further groundwater impact delineation. An additional PSH recovery pump was installed in monitoring well MW-7 in August 2020.

SCOPE OF WORK

Groundwater monitoring activities conducted in 2022:

- Monitoring for PSH in all monitoring wells on a quarterly basis;
- Removing PSH from monitoring wells through active and passive recovery techniques;
- Conducting site visits for operation and maintenance (O&M) of the solar powered pneumatic PSH recovery system; and
- Collecting groundwater samples semi-annually in monitoring wells MW-10 through MW-20 and annually in monitoring wells MW-3, MW-5, MW-6, MW-7, and SVE-4.

WATER AND PSH LEVEL MEASUREMENTS

Groundwater and PSH monitoring included recording depth to PSH and depth to groundwater measurements at all monitoring wells with an oil/water interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with distilled water prior to each measurement. Depth to groundwater and groundwater elevations are presented in Table 1.

GROUNDWATER CONTOUR MAPS

Ensolum used existing top-of-casing well elevations and measured groundwater elevations to draft groundwater contours and determine groundwater flow direction in March 2022 (Figure 2), May 2022 (Figure 3), September 2022 (Figure 4), and November 2022 (Figure 5). Contours were inferred based on groundwater elevations obtained and observations of physical characteristics at the Site (topography, proximity to arroyos and intermittent streams, etc.).

GROUNDWATER SAMPLING

In March 2022 and September 2022, the monitoring wells were purged using dedicated polyethylene bailers on each well. As groundwater was removed from the monitoring well, pH, electric conductivity (EC), and temperature were monitored. Monitoring wells were purged until these properties stabilized, indicating that the purge water was representative of aquifer conditions, or until the well was purged dry. Stabilization was defined as three consecutive stable readings for each water property (plus or minus (\pm) 0.4 units for pH, ± 10 percent (%) for EC, and ± 2 degrees ($^{\circ}$) Celsius for temperature). Purge water was containerized and disposed of on site. Copies of the field notes are presented in Appendix A.

Once each monitoring well was purged, groundwater samples were collected by filling three 40-milliliter (mL) glass vials. The laboratory-supplied vials were filled and capped with no headspace to prevent degradation of the sample. Samples were labeled with the date and time of collection, monitoring well name, project name, sample collector's name, and parameters to be analyzed. They were immediately sealed and packed on ice. The samples were transferred to Hall Environmental Analytical Laboratory (HEAL) for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B. Groundwater analytical results are presented in Table 2.

PSH RECOVERY

In March 2018, Harvest installed a solar powered pneumatic PSH recovery system in monitoring well MW-6. The pump utilizes a hydrophobic and oleophilic skimmer that floats on the water column to remove PSH from the water-PSH interface. The system cycles between vacuum and pressure to pneumatically move PSH to the surface, where it is containerized. A delay between pumping cycles allows for recharge of fluids in the monitoring well and prevents over-pumping to efficiently use the power generated from the solar panel. Regular site visits were conducted in 2022 to monitor system performance, PSH recovery, and conduct system O&M. During each inspection PSH thickness and PSH recovery were recorded. An additional PSH recovery pump was installed in MW-7 in August 2020. If PSH was observed in any monitoring wells that did not have an active PSH recovery pump installed, PSH was manually bailed from the monitoring well until no visible product could be recovered. Afterwards, a PSH absorbent sock was placed into the monitoring well. Observable PSH thickness was observed to be consistently decreasing until August when no measurable PSH was observed in monitoring wells MW-6 and MW-7. The PSH recovery pumps were removed from both monitoring wells in August 2022 and the solar powered pneumatic PSH recovery system was moved to another Harvest Site.

RESULTS

Depth to groundwater and depth to PSH were measured during the 2022 quarterly monitoring events. Product thickness during the 2022 monitoring events was observed in monitoring wells MW-3, MW-5, MW-6, MW-7 and MW-12. PSH thickness ranged in thickness from trace quantities in multiple monitoring wells to 0.25 feet in monitoring MW-12 during the May 2022 monitoring event.

Groundwater flow direction was determined to be east-northeast at the Site (Figures 2, 3, 4, and 5), which is consistent with previous monitoring events.

The following summarizes analytical results for the two monitoring events:

- March 2022
 - Laboratory analytical results indicated benzene concentrations in groundwater in monitoring wells MW-13, MW-15, and MW-16 exceeded the NMWQCC standard

of 5 micrograms per liter ($\mu\text{g/L}$) with concentrations of 170 $\mu\text{g/L}$, 5.5 $\mu\text{g/L}$, and 510 $\mu\text{g/L}$, respectively.

- September 2022:
 - Analytical results indicate benzene concentrations in groundwater exceeded the NMWQCC standard in monitoring wells MW-13 and MW-15 with concentrations of 430 $\mu\text{g/L}$ and 21 $\mu\text{g/L}$, respectively.

Concentrations of all other constituents of concern were not detected above their respective laboratory reporting limits during either sampling event in 2022. Analytical results are listed in Table 2 and presented on Figures 2 and 4. Laboratory analytical reports are included in Appendix B.

Throughout 2022, an estimated 4.42 gallons and 1.27 gallons of PSH were recovered from MW-6 and MW-7, respectively, from the solar powered pneumatic PSH recovery system. Since installation of the PSH recovery system in March 2018, an estimated 34.68 gallons and 9.49 gallons of PSH have been recovered between monitoring wells MW-6 and MW07, respectively, for a total of 44.17 gallons. Approximately 1 gallon of PSH was recovered via product recovery socks and manual bailing during 2022 from monitoring wells MW-3, MW-5, and MW-12. PSH recovery volumes, operational data, and system maintenance data are summarized on Table 3 and 4 for the pneumatic PSH recovery system installed in monitoring wells MW-6 and MW-7.

CONCLUSIONS

PSH thickness has declined to trace quantities in monitoring wells MW-6 and MW-7. The solar powered pneumatic PSH recovery system has been removed from Site due to the lack of PSH thickness in MW-6 and MW-7. PSH was also observed in monitoring wells MW-3, MW-5, and MW-12 periodically through 2022, but not at levels practical to use the pneumatic PSH recovery system.

Groundwater samples from monitoring wells MW-13, MW-15 and MW-16 exhibited benzene concentrations exceeding the NMWQCC standard for groundwater. Groundwater samples MW-10, MW-11, MW-14, MW-15, MW-17, MW-19, and MW-20 did not exceed NMWQCC standards.

FUTURE WORK

Harvest will continue to measure depth to groundwater and depth to PSH quarterly in all monitoring wells. Groundwater samples will be collected semi-annually and analyzed for BTEX from monitoring wells MW-10 through MW-20, and annually from MW-3, SVE-4, MW-5, MW-6, MW-7, and MW-8 if there is sufficient water and/or no PSH is present. Passive PSH recovery will consist of monthly PSH bailing and product absorbent sock replacement during monthly visits. If PSH thickness levels increase in any monitoring wells, the solar powered pneumatic PSH recovery system may be reinstalled. Once the PSH plume has diminished, Harvest will assess options to address dissolve phase groundwater impacts.

We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this document, please contact the undersigned.

Sincerely,

Ensolum, LLC



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Attachments:

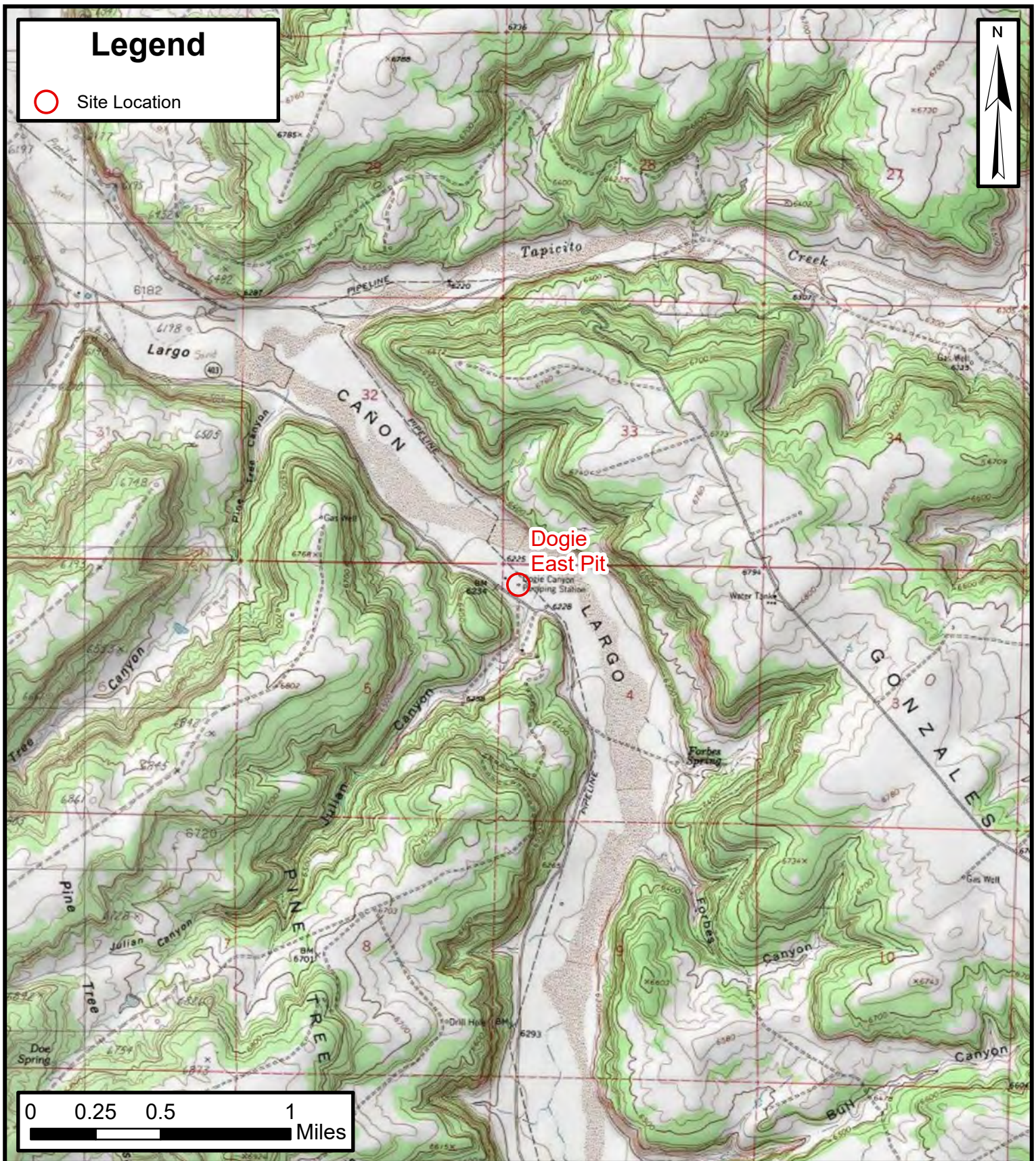
Figure 1: Site Location Map
Figure 2: Groundwater Potentiometric & Analytical Results Map March 2022
Figure 3: Groundwater Elevation Contour Map May 2022
Figure 4: Groundwater Potentiometric & Analytical Results Map September 2022
Figure 5: Groundwater Elevation Contour Map November 2022

Table 1: Groundwater Elevations
Table 2: Groundwater Analytical Results
Table 3: Pneumatic Product Recovery System Data – MW-6
Table 4: Pneumatic Product Recovery System Data – MW-7

Appendix A: Groundwater Collection Forms
Appendix B: Laboratory Analytical Reports



FIGURES



Site Location Map

Dogie East Pit

Harvest Four Corners, LLC

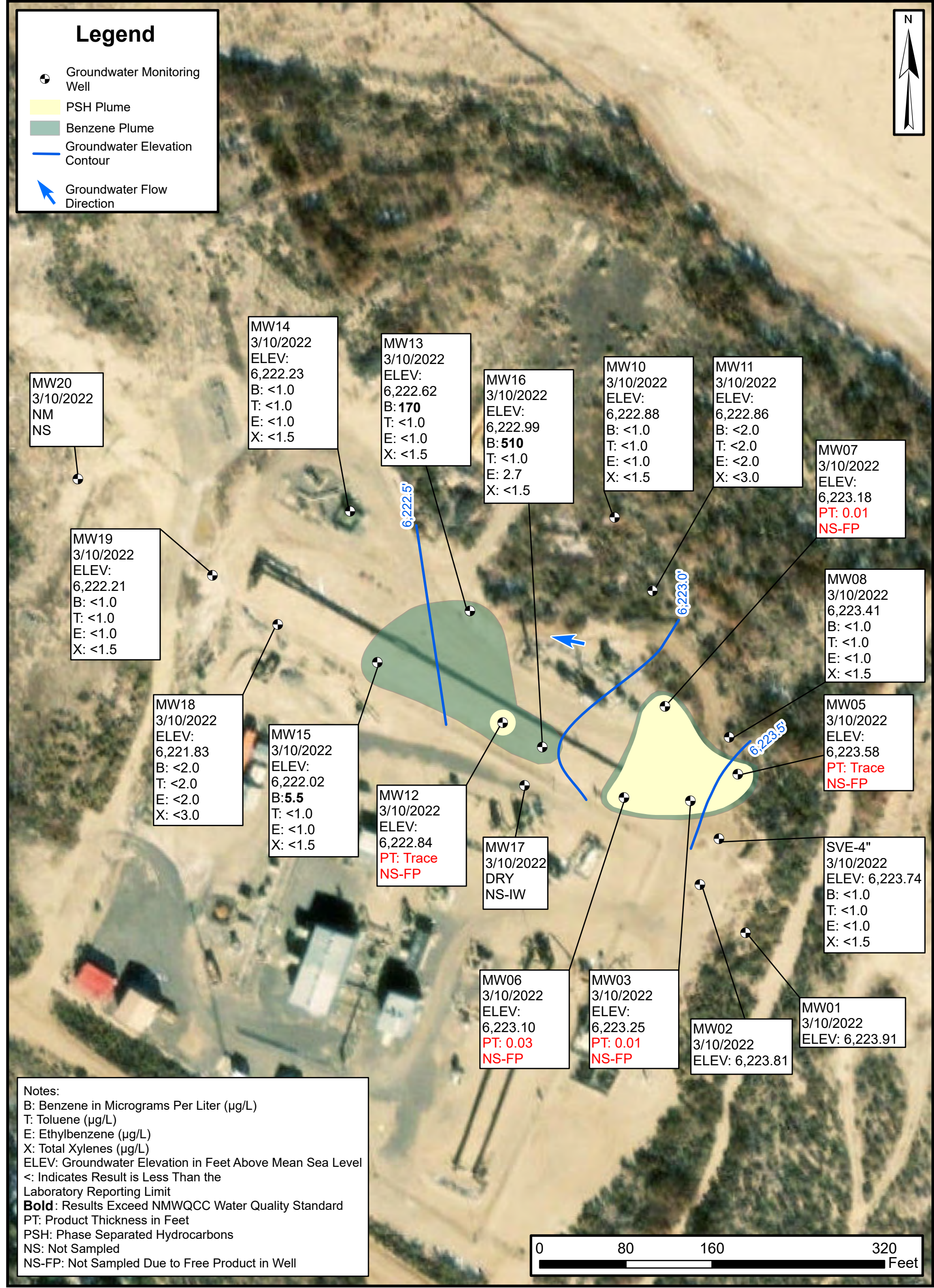
36.43414, -107.48052

Rio Arriba County, New Mexico

FIGURE

1





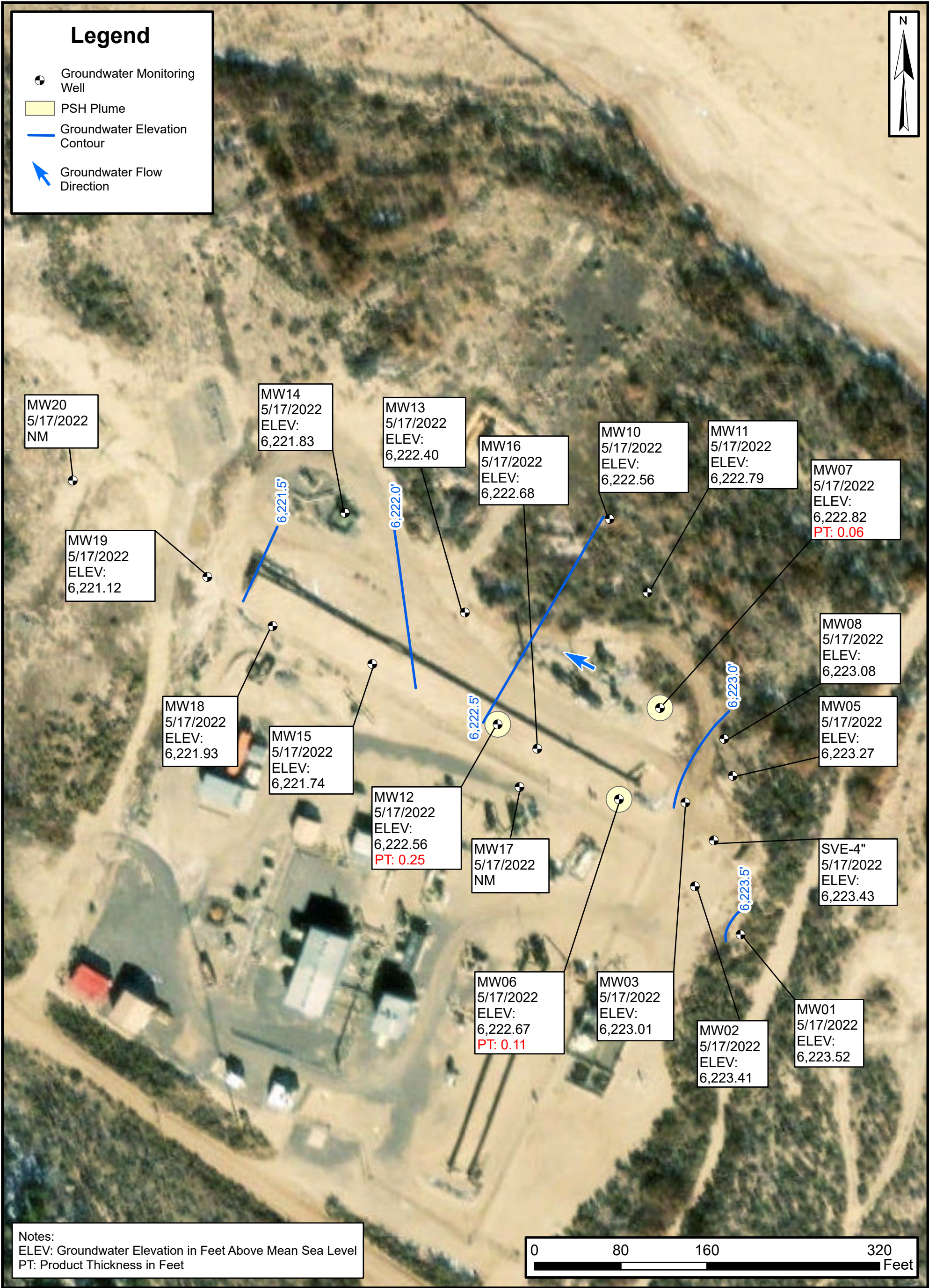
Groundwater Potentiometric & Analytical Results Map

March 2022

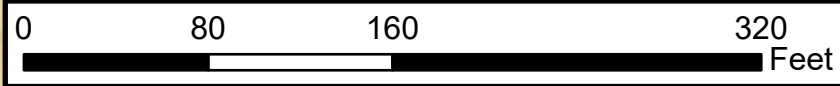
Dogie East Pit
Harvest Four Corners, LLC
36.43414, -107.48052
Rio Arriba County, New Mexico

FIGURE

2



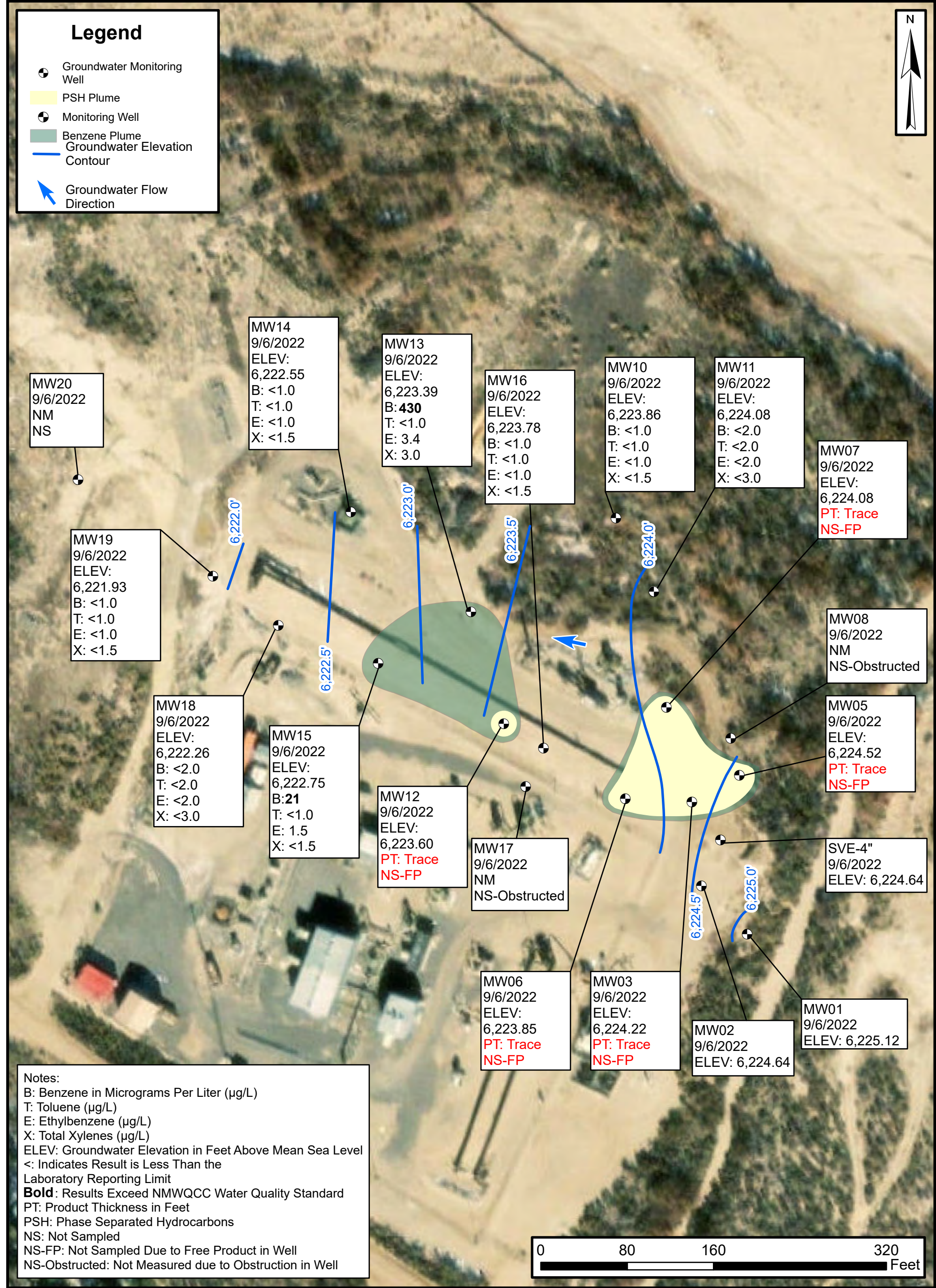
Notes:
ELEV: Groundwater Elevation in Feet Above Mean Sea Level
PT: Product Thickness in Feet

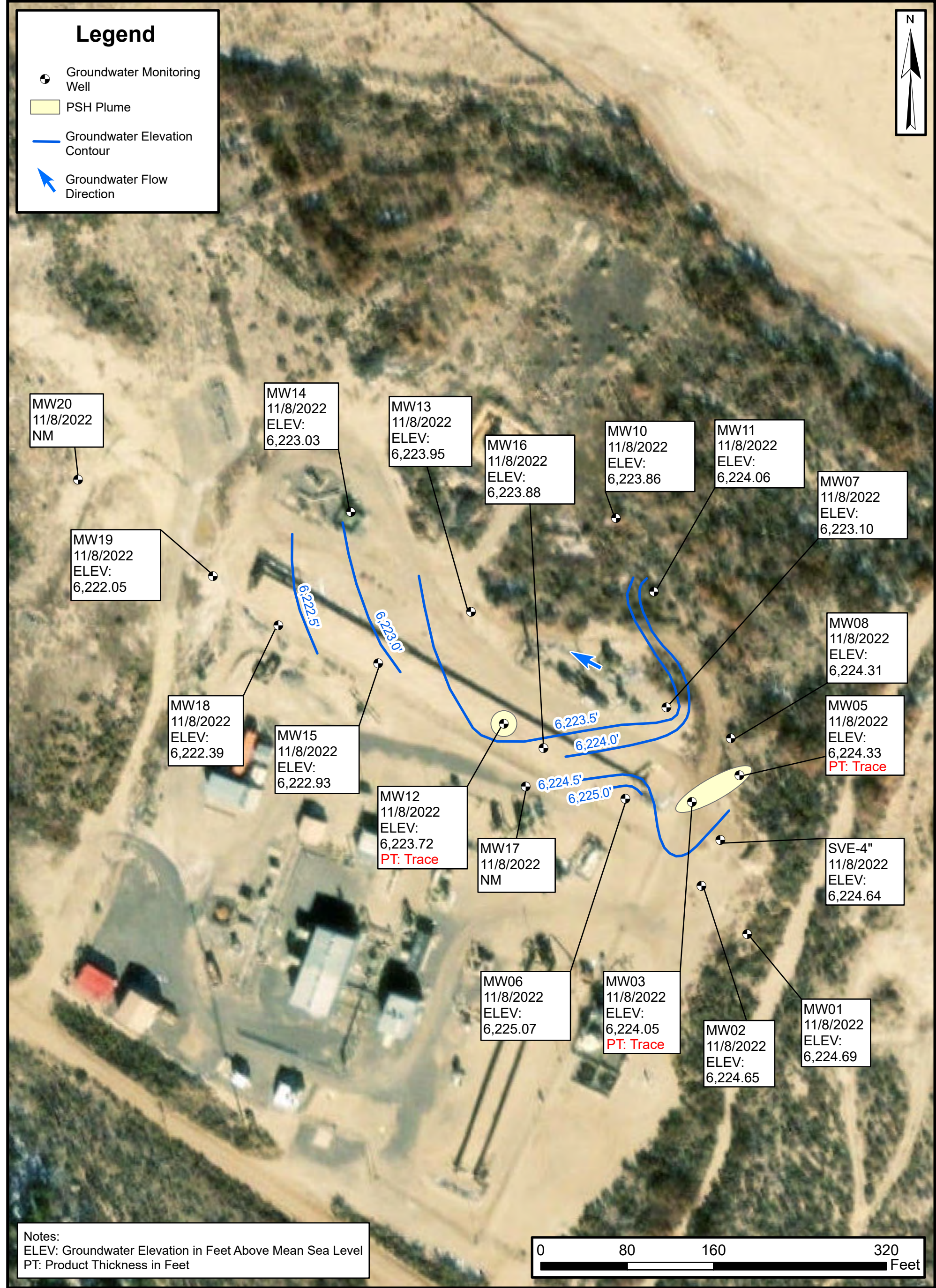


Groundwater Elevation Contour Map May 2022

Dogie East Pit
Harvest Four Corners, LLC
36.43414, -107.48052
Rio Arriba County, New Mexico

FIGURE
3







TABLES



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-1	3/6/2013	6,253.79	15.45	NP	NP	6,238.34
	6/25/2013	6,239.41*	15.64	NP	NP	6,223.77
	9/24/2013		14.88	NP	NP	6,224.53
	12/5/2013		14.63	NP	NP	6,224.78
	3/20/2014		14.26	NP	NP	6,225.15
	6/16/2014		15.01	NP	NP	6,224.40
	9/10/2014		15.11	NP	NP	6,224.30
	12/3/2014		14.80	NP	NP	6,224.61
	3/5/2015		14.09	NP	NP	6,225.32
	6/18/2015		14.52	NP	NP	6,224.89
	9/23/2015		14.92	NP	NP	6,224.49
	12/18/2015		14.46	NP	NP	6,224.95
	9/12/2016		15.42	NP	NP	6,223.99
	3/28/2017		14.23	NP	NP	6,225.18
	10/30/2017	6,239.14**	14.69	NP	NP	6,224.45
	3/28/2018		14.45	NP	NP	6,224.69
	9/14/2018		16.18	NP	NP	6,222.96
	3/28/2019		15.54	NP	NP	6,223.60
	5/16/2019		14.65	NP	NP	6,224.49
	8/13/2019	6,239.58***	15.69	NP	NP	6,223.45
	9/23/2019		16.04	NP	NP	6,223.54
	3/18/2020		15.35	NP	NP	6,224.23
	6/11/2020		15.91	NP	NP	6,223.67
	9/22/2020		16.58	NP	NP	6,223.00
	12/18/2020		16.32	NP	NP	6,223.26
	3/4/2021		16.15	NP	NP	6,223.43
	5/27/2021		16.36	NP	NP	6,223.22
	8/24/2021		16.50	NP	NP	6,223.08
	12/9/2021		15.97	NP	NP	6,223.61
	3/10/2022		15.67	NP	NP	6,223.91
	5/17/2022		16.06	NP	NP	6,223.52
	9/6/2022		14.46	NP	NP	6,225.12
	11/8/2022		14.89	NP	NP	6,224.69
MW-2	3/6/2013	6,253.92	15.50	NP	NP	6,238.42
	6/25/2013	6,239.57*	15.93	NP	NP	6,223.64
	9/24/2013		15.54	NP	NP	6,224.03
	12/5/2013		14.90	NP	NP	6,224.67
	3/20/2014		14.58	NP	NP	6,224.99
	6/16/2014		15.33	NP	NP	6,224.24
	9/10/2014		15.45	NP	NP	6,224.12
	12/3/2014		15.09	NP	NP	6,224.48
	3/5/2015		14.25	NP	NP	6,225.32
	6/18/2015		14.81	NP	NP	6,224.76



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GROUNDWATER ELEVATIONS

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Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-2	9/23/2015	6,239.57*	15.17	NP	NP	6,224.40
	12/18/2015		14.69	NP	NP	6,224.88
	9/12/2016		15.40	NP	NP	6,224.17
	3/28/2017		14.58	NP	NP	6,224.99
	10/30/2017	6,239.28**	15.20	NP	NP	6,224.08
	3/28/2018		14.71	NP	NP	6,224.57
	9/14/2018		16.10	NP	NP	6,223.18
	3/28/2019		14.81	NP	NP	6,224.47
	5/16/2019		14.93	NP	NP	6,224.35
	8/13/2019		15.92	NP	NP	6,223.36
	9/23/2019	6,239.74***	16.33	NP	NP	6,223.41
	3/18/2020		15.64	NP	NP	6,224.10
	6/11/2020		16.21	NP	NP	6,223.53
	9/22/2020		16.86	NP	NP	6,222.88
	12/18/2020		16.62	NP	NP	6,223.12
	3/4/2021		16.42	NP	NP	6,223.32
	5/27/2021		16.65	NP	NP	6,223.09
	8/24/2021		16.73	NP	NP	6,223.01
	12/9/2021		16.22	NP	NP	6,223.52
	3/10/2022		15.93	NP	NP	6,223.81
	5/17/2022		16.33	NP	NP	6,223.41
	9/6/2022		15.10	NP	NP	6,224.64
	11/8/2022		15.09	NP	NP	6,224.65
MW-3	3/6/2013	6,253.35	15.40	NP	NP	6,237.95
	6/25/2013	6,238.61*	15.25	NP	NP	6,223.36
	9/24/2013		15.05	NP	NP	6,223.56
	12/5/2013		14.29	NP	NP	6,224.32
	3/20/2014		13.96	NP	NP	6,224.65
	6/16/2014		14.67	NP	NP	6,223.94
	9/10/2014		14.79	NP	NP	6,223.82
	12/3/2014		14.50	NP	NP	6,224.11
	3/5/2015		13.67	NP	NP	6,224.94
	6/18/2015		14.14	NP	NP	6,224.47
	9/23/2015		15.59	NP	NP	6,223.02
	12/18/2015		14.12	NP	NP	6,224.49
	9/12/2016		15.50	NP	NP	6,223.11
	3/28/2017		14.22	NP	NP	6,224.39
	10/30/2017	6,238.28**	14.60	NP	NP	6,223.68
	3/28/2018		14.08	NP	NP	6,224.20
	9/14/2018		15.44	NP	NP	6,222.84
	3/28/2019		14.31	NP	NP	6,223.97
	5/16/2019		14.27	NP	NP	6,224.01
	8/13/2019		15.32	NP	NP	6,222.96



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Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-3	9/23/2019	6,238.79***	15.74	NP	NP	6,223.05
	3/18/2020		15.08	NP	NP	6,223.71
	6/11/2020		15.59	NP	NP	6,223.20
	9/22/2020		16.30	16.22	0.08	6,222.49
	12/18/2020		16.09	NP	NP	6,222.70
	3/4/2021		15.89	NP	NP	6,222.90
	5/27/2021		16.10	NP	NP	6,222.69
	8/24/2021		16.00	Trace	Trace	6,222.79
	12/9/2021		15.79	NP	NP	6,223.00
	3/10/2022		15.54	15.53	0.01	6,223.25
	5/17/2022		15.78	NP	NP	6,223.01
	9/6/2022		14.57	Trace	Trace	6,224.22
	11/8/2022		14.74	Trace	Trace	6,224.05
MW-4	3/6/2013	DEST	DEST	DEST	DEST	DEST
MW-5	3/6/2013	6,252.71	14.60	NP	NP	6,238.11
	6/25/2013	6,238.48*	14.96	NP	NP	6,223.52
	9/24/2013		14.35	NP	NP	6,224.13
	12/5/2013		13.94	NP	NP	6,224.54
	3/20/2014		13.63	NP	NP	6,224.85
	6/16/2014		14.39	NP	NP	6,224.09
	9/10/2014		14.61	NP	NP	6,223.87
	12/3/2014		14.15	14.15†	<0.01	6,224.33
	3/5/2015		13.32	13.32†	<0.01	6,225.16
	6/18/2015		13.88	NP	NP	6,224.60
	9/23/2015		14.30	NP	NP	6,224.18
	12/18/2015		13.74	NP	NP	6,224.74
	9/12/2016		14.83	NP	NP	6,223.65
	3/28/2017		13.57	NP	NP	6,224.91
	10/30/2017	6,238.19**	14.08	NP	NP	6,224.11
	3/28/2018		13.82	NP	NP	6,224.37
	9/14/2018		15.20	NP	NP	6,222.99
	3/28/2019		13.91	NP	NP	6,224.28
	5/16/2019		13.94	NP	NP	6,224.25
	8/13/2019		15.54	NP	NP	6,222.65
	9/23/2019	6,238.65***	15.68	NP	NP	6,222.97
	3/18/2020		14.75	NP	NP	6,223.90
	6/11/2020		15.23	NP	NP	6,223.42
	9/22/2020		16.07	15.89	0.18	6,222.58
	12/18/2020		15.89	15.74	0.15	6,222.76
	3/4/2021		15.56	15.74	0.18	6,223.09
	5/27/2021		15.74	NP	NP	6,222.91
	8/24/2021		15.80	15.77	0.03	6,222.85
	12/9/2021		15.46	NP	NP	6,223.19



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Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-5	3/10/2022	6,238.65***	15.07	Trace	Trace	6,223.58
	5/17/2022		15.38	NP	NP	6,223.27
	9/6/2022		14.13	Trace	Trace	6,224.52
	11/8/2022		14.32	Trace	Trace	6,224.33
MW-6	3/6/2013	6,254.09	16.68	15.95	0.73	6,236.83
	6/25/2013	6,240.01*	17.51	16.67	0.84	6,221.83
	9/24/2013		16.88	16.03	0.85	6,222.45
	12/5/2013		16.18	15.80	0.38	6,223.53
	3/20/2014		15.59	15.56	0.03	6,224.40
	6/16/2014		16.30	16.28	0.02	6,223.69
	9/10/2014		16.39	NP	NP	6,223.62
	12/3/2014		16.08	16.07	0.01	6,223.92
	3/5/2015		15.21	15.21†	<0.01	6,224.79
	6/18/2015		15.79	15.79†	<0.01	6,224.21
	9/23/2015		16.19	NP	NP	6,223.82
	12/18/2015		15.68	NP	NP	6,224.33
	9/12/2016		16.81	16.70	0.11	6,223.11
	3/28/2017		15.49	NP	NP	6,224.52
	10/30/2017	6,239.72**	16.54	15.95	0.59	6,222.71
	3/28/2017		PRS	PRS	PRS	PRS
	9/14/2018		17.10	17.06	0.04	6,222.59
	3/28/2019		15.90	NP	NP	6,223.82
	5/16/2019		15.98	NP	NP	6,223.74
	8/13/2019		21.90	NP	NP	6,217.82
	9/23/2019	6,240.19***	17.53	17.37	0.16	6,222.53
	3/18/2020		17.21	16.6	0.61	6,222.49
	6/11/2020		18.20	17.03	1.17	6,221.05
	9/22/2020		19.30	17.51	1.79	6,219.46
	12/18/2020		18.76	17.44	1.32	6,220.37
	3/4/2021		18.17	17.31	0.86	6,221.33
	5/27/2021		18.53	17.47	1.06	6,220.81
	8/24/2021		18.33	17.46	0.87	6,221.16
	12/9/2021		17.26	16.97	0.29	6,222.70
	3/10/2022		17.07	17.04	0.03	6,223.10
	5/17/2022		17.43	17.32	0.11	6,222.67
	9/6/2022		16.16	Trace	Trace	6,224.03
	11/8/2022		15.12	NP	NP	6,225.07
MW-7	3/6/2013	6,250.65	12.61	NP	NP	6,238.04
	6/25/2013	6,236.53*	13.40	NP	NP	6,223.13
	9/24/2013		12.71	12.67	0.04	6,223.79
	12/5/2013		12.34	NP	NP	6,224.19
	3/20/2014		12.05	NP	NP	6,224.48
	6/16/2014		12.84	NP	NP	6,223.69



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-7	9/10/2014	6,236.53*	12.89	NP	NP	6,223.64
	12/3/2014		12.58	NP	NP	6,223.95
	2/25/2015		12.27	NP	NP	6,224.26
	3/5/2015		11.68	NP	NP	6,224.85
	6/18/2015		12.34	NP	NP	6,224.19
	9/23/2015		12.68	NP	NP	6,223.85
	12/18/2015		12.17	NP	NP	6,224.36
	9/12/2016		13.25	NP	NP	6,223.28
	3/28/2017		12.05	NP	NP	6,224.48
	10/30/2017	6,236.27**	12.55	NP	NP	6,223.72
	3/28/2018		12.24	NP	NP	6,224.03
	9/14/2018		13.60	NP	NP	6,222.67
	3/28/2019		12.30	12.25	0.05	6,223.93
	5/16/2019		12.37	NP	NP	6,223.90
	8/13/2019		13.89	NP	NP	6,222.38
	9/23/2019	6,236.71***	14.42	13.56	0.86	6,221.60
	3/18/2020		13.48	13.15	0.33	6,222.97
	6/11/2020		14.35	13.48	0.87	6,221.66
	9/22/2020		15.21	14.06	1.15	6,220.58
	12/18/2020		15.02	13.9	1.12	6,220.79
	3/4/2021		14.59	13.76	0.83	6,221.46
	5/27/2021		14.77	14.05	0.72	6,221.36
	8/24/2021		14.59	13.92	0.67	6,221.58
	12/9/2021		13.69	13.6	0.09	6,222.95
	3/10/2022		13.52	13.51	0.01	6,223.18
	5/17/2022		13.84	13.78	0.06	6,222.82
	9/6/2022		12.63	Trace	Trace	6,224.08
	11/8/2022		13.61	NP	NP	6,223.10
MW-8	3/6/2013	6,249.10	11.88	NP	NP	6,237.22
	6/25/2013	6,235.85*	12.55	NP	NP	6,223.30
	9/24/2013		11.84	NP	NP	6,224.01
	12/5/2013		11.52	NP	NP	6,224.33
	3/18/2014		11.20	NP	NP	6,224.65
	6/16/2014		12.04	NP	NP	6,223.81
	9/10/2014		12.11	NP	NP	6,223.74
	12/3/2014		11.73	NP	NP	6,224.12
	3/5/2015		10.87	NP	NP	6,224.98
	6/18/2015		11.54	NP	NP	6,224.31
	9/23/2015		11.85	NP	NP	6,224.00
	12/18/2015		11.33	NP	NP	6,224.52
	9/12/2016		12.56	NP	NP	6,223.29
	3/28/2017		11.20	NP	NP	6,224.65
	10/30/2017	6,235.58**	11.74	NP	NP	6,223.84



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-8	3/28/2018	6,235.58**	11.44	NP	NP	6,224.14
	9/14/2018		12.72	NP	NP	6,222.86
	3/28/2019		DRY	NP	NP	DRY
	5/16/2019		11.60	NP	NP	6,223.98
	8/13/2019		12.53	NP	NP	6,223.05
	9/23/2019	6,236.01***	12.98	NP	NP	6,223.03
	3/18/2020		12.30	NP	NP	6,223.71
	6/11/2020		12.85	NP	NP	6,223.16
	9/22/2020		13.46	NP	NP	6,222.55
	12/18/2020		13.29	NP	NP	6,222.72
	3/4/2021		13.10	NP	NP	6,222.91
	5/27/2021		13.30	NP	NP	6,222.71
	8/24/2021		13.15	NP	NP	6,222.86
	12/9/2022		12.89	NP	NP	6,223.12
	3/10/2022		12.60	NP	NP	6,223.41
	5/17/2022		12.93	NP	NP	6,223.08
	9/6/2022		11.70	NP	NP	6,224.31
MW-9	3/6/2013	6,243.67	8.01	NP	NP	6,235.66
	6/25/2013	6,229.03*	8.67	NP	NP	6,220.36
	9/24/2013		NM	NM	NM	NM
	12/5/2013	P/A	P/A	P/A	P/A	P/A
SVE-4"	3/6/2013	6,253.41	15.14	NP	NP	6,238.27
	6/25/2013	6,239.22*	15.60	NP	NP	6,223.62
	9/24/2013		14.83	NP	NP	6,224.39
	12/5/2013		14.56	NP	NP	6,224.66
	3/20/2014		14.19	NP	NP	6,225.03
	6/16/2014		14.99	NP	NP	6,224.23
	9/10/2014		15.05	NP	NP	6,224.17
	12/3/2014		14.71	NP	NP	6,224.51
	3/5/2015		13.86	NP	NP	6,225.36
	6/18/2015	6,239.22*	14.49	NP	NP	6,224.73
	9/23/2015		14.89	NP	NP	6,224.33
	12/18/2015		14.34	NP	NP	6,224.88
	9/12/2016		15.78	NP	NP	6,223.44
	3/28/2017	6,238.94**	14.18	NP	NP	6,225.04
	10/30/2017		14.74	NP	NP	6,224.20
	3/28/2018		14.36	NP	NP	6,224.58
	9/14/2018		15.74	NP	NP	6,223.20
	3/28/2019		14.41	NP	NP	6,224.53
	5/16/2019	6,239.38***	14.57	NP	NP	6,224.37
	8/13/2019		15.61	NP	NP	6,223.33
	9/23/2019		15.99	NP	NP	6,223.39
	3/18/2020		15.30	NP	NP	6,224.08



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
SVE-4"	6/11/2020	6,239.38***	15.86	NP	NP	6,223.52
	9/22/2020		16.51	NP	NP	6,222.87
	12/18/2020		16.27	NP	NP	6,223.11
	3/4/2021		16.05	NP	NP	6,223.33
	5/27/2021		16.33	NP	NP	6,223.05
	8/24/2021		16.30	NP	NP	6,223.08
	12/9/2021		15.92	NP	NP	6,223.46
	3/10/2022		15.64	NP	NP	6,223.74
	5/17/2022		15.95	NP	NP	6,223.43
	9/6/2022		14.74	NP	NP	6,224.64
	11/8/2022		14.74	NP	NP	6,224.64
MW-10	12/5/2013	6,231.08	7.23	NP	NP	6,223.85
	3/20/2014		6.90	NP	NP	6,224.18
	6/16/2014		7.77	NP	NP	6,223.31
	9/10/2014		7.75	NP	NP	6,223.33
	12/3/2014		7.81	NP	NP	6,223.27
	3/5/2015		6.29	NP	NP	6,224.79
	6/18/2015		7.26	NP	NP	6,223.82
	9/23/2015		7.53	NP	NP	6,223.55
	12/18/2015		7.06	NP	NP	6,224.02
	9/12/2016		8.25	NP	NP	6,222.83
	3/28/2017		6.90	NP	NP	6,224.18
	10/30/2017	6,230.82**	6.23	NP	NP	6,224.59
	3/28/2018		7.06	NP	NP	6,223.76
	9/14/2018		8.44	NP	NP	6,222.38
	3/28/2019		7.09	NP	NP	6,223.73
	5/16/2019		7.25	NP	NP	6,223.57
	8/13/2019		8.37	NP	NP	6,222.45
	9/23/2019	6,231.26***	8.69	NP	NP	6,222.57
	3/18/2020		8.05	NP	NP	6,223.21
	6/11/2020		8.56	NP	NP	6,222.70
	9/22/2020		9.16	NP	NP	6,222.10
	12/18/2020		9.07	NP	NP	6,222.19
	3/4/2021		8.90	NP	NP	6,222.36
	5/27/2021		9.05	NP	NP	6,222.21
	8/24/2021		8.78	NP	NP	6,222.48
	12/9/2021		8.71	NP	NP	6,222.55
	3/10/2022		8.38	NP	NP	6,222.88
	5/17/2022		8.70	NP	NP	6,222.56
	9/6/2022		7.43	NP	NP	6,223.83
	11/8/2022		7.4	NP	NP	6,223.86
MW-11	12/5/2013	6,232.35	8.24	NP	NP	6,224.11
	3/20/2014		7.91	NP	NP	6,224.44



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-11	6/16/2014	6,232.35	8.75	NP	NP	6,223.60
	9/10/2014		8.75	NP	NP	6,223.60
	12/3/2014		8.42	NP	NP	6,223.93
	3/5/2015		7.36	NP	NP	6,224.99
	6/18/2015		8.24	NP	NP	6,224.11
	9/23/2015		8.55	NP	NP	6,223.80
	12/18/2015		8.01	NP	NP	6,224.34
	9/12/2016		9.22	NP	NP	6,223.13
	3/28/2017		7.87	NP	NP	6,224.48
	10/30/2017	6,232.10**	9.10	NP	NP	6,223.00
	3/28/2018		8.11	NP	NP	6,223.99
	9/14/2018		9.42	NP	NP	6,222.68
	3/28/2019		8.10	NP	NP	6,224.00
	5/16/2019		8.27	NP	NP	6,223.83
	8/13/2019		12.23	NP	NP	6,219.87
	9/23/2019	6,232.51***	9.71	NP	NP	6,222.80
	3/18/2020		9.05	NP	NP	6,223.46
	6/11/2020		9.62	NP	NP	6,222.89
	9/22/2020		10.22	NP	NP	6,222.29
	12/18/2020		10.08	NP	NP	6,222.43
	3/4/2021		9.90	NP	NP	6,222.61
	5/27/2021		10.10	NP	NP	6,222.41
	8/24/2021		9.88	NP	NP	6,222.63
	12/9/2021		9.63	NP	NP	6,222.88
	3/10/2022		9.65	NP	NP	6,222.86
	5/17/2022		9.72	NP	NP	6,222.79
	9/6/2022		8.43	NP	NP	6,224.08
	11/8/2022		8.45	NP	NP	6,224.06
MW-12	12/5/2013	6,238.15	14.37	14.36	0.01	6,223.77
	3/20/2014		14.03	NP	NP	6,224.12
	6/16/2014		14.77	NP	NP	6,223.38
	9/10/2014		14.88	NP	NP	6,223.27
	12/3/2014		14.56	NP	NP	6,223.59
	3/5/2015		13.69	NP	NP	6,224.46
	6/18/2015		14.28	NP	NP	6,223.87
	9/23/2015		14.67	NP	NP	6,223.48
	12/18/2015		14.18	NP	NP	6,223.97
	9/12/2016		15.22	NP	NP	6,222.93
	3/28/2017		14.06	NP	NP	6,224.09
	10/30/2017	6,237.72**	14.57	NP	NP	6,223.15
	3/28/2018		14.23	NP	NP	6,223.49
	9/14/2018		15.61	NP	NP	6,222.11
	3/28/2019		14.39	NP	NP	6,223.33



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-12	5/16/2019	6,237.72**	14.47	NP	NP	6,223.25
	8/13/2019		15.83	NP	NP	6,221.89
	9/23/2019	6,238.35***	15.80	NP	NP	6,222.55
	3/18/2020		15.20	NP	NP	6,223.15
	6/11/2020		15.71	NP	NP	6,222.64
	9/22/2020		16.35	NP	NP	6,222.00
	12/18/2020		16.21	NP	NP	6,222.14
	3/4/2021		16.02	NP	NP	6,222.33
	5/27/2021		16.22	16.19	0.03	6,222.15
	8/24/2021		16.08	Trace	Trace	6,222.27
	12/9/2021		15.80	NP	NP	6,222.55
	3/10/2022		15.51	Trace	Trace	6,222.84
	5/17/2022		15.99	15.74	0.25	6,222.56
	9/6/2022		14.75	Trace	Trace	6,223.60
	11/8/2022		14.63	Trace	Trace	6,223.72
MW-13	12/5/2013	6,237.85	14.18	NP	NP	6,223.67
	3/20/2014		13.86	NP	NP	6,223.99
	6/16/2014		14.61	NP	NP	6,223.24
	9/10/2014		14.69	NP	NP	6,223.16
	12/3/2014		14.37	NP	NP	6,223.48
	3/5/2015		13.46	NP	NP	6,224.39
	6/18/2015		14.09	NP	NP	6,223.76
	9/23/2015		14.47	NP	NP	6,223.38
	12/18/2015		13.98	NP	NP	6,223.87
	9/12/2016		15.03	NP	NP	6,222.82
	3/28/2017		13.85	NP	NP	6,224.00
	10/30/2017	6237.57**	14.34	NP	NP	6,223.23
	3/28/2018		14.14	NP	NP	6,223.43
	9/14/2018		15.34	NP	NP	6,222.23
	3/28/2019		14.14	NP	NP	6,223.43
	5/16/2019		14.22	NP	NP	6,223.35
	8/13/2019	6,238.04***	15.14	NP	NP	6,222.43
	9/23/2019		15.61	NP	NP	6,222.43
	3/18/2020		14.98	NP	NP	6,223.06
	6/11/2020		15.52	NP	NP	6,222.52
	9/22/2020		16.11	NP	NP	6,221.93
	12/18/2020		16.00	NP	NP	6,222.04
	3/4/2021		15.86	NP	NP	6,222.18
	5/27/2021		16.02	NP	NP	6,222.02
	8/24/2021		15.91	NP	NP	6,222.13
	12/9/2021		15.52	NP	NP	6,222.52
	3/10/2022		15.42	NP	NP	6,222.62
	5/17/2022		15.64	NP	NP	6,222.40



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-13	9/6/2022	6,238.04***	14.65	NP	NP	6,223.39
	11/8/2022		14.09	NP	NP	6,223.95
MW-14	10/30/2017	6,234.11	11.40	NP	NP	6,222.71
	3/28/2018		10.93	NP	NP	6,223.18
	9/14/2018		12.21	NP	NP	6,221.90
	3/28/2019		11.18	NP	NP	6,222.93
	5/16/2019		11.20	NP	NP	6,222.91
	8/13/2019		12.16	NP	NP	6,221.95
	9/23/2019	6,234.55***	12.40	NP	NP	6,222.15
	3/18/2020		12.01	NP	NP	6,222.54
	6/11/2020		12.51	NP	NP	6,222.04
	9/22/2020		13.09	NP	NP	6,221.46
	12/18/2020		12.93	NP	NP	6,221.62
	3/4/2021		12.88	NP	NP	6,221.67
	5/27/2021		12.88	NP	NP	6,221.67
	8/24/2021		13.18	NP	NP	6,221.37
	12/9/2021		12.61	NP	NP	6,221.94
	3/10/2022		12.32	NP	NP	6,222.23
	5/17/2022		12.72	NP	NP	6,221.83
	9/6/2022		12.00	NP	NP	6,222.55
	11/8/2022		11.52	NP	NP	6,223.03
MW-15	10/30/2017	6,235.08	12.54	NP	NP	6,222.54
	3/28/2018		12.09	NP	NP	6,222.99
	9/14/2018		13.42	NP	NP	6,221.66
	3/28/2019		12.25	NP	NP	6,222.83
	5/16/2019		12.40	NP	NP	6,222.68
	8/13/2019		13.40	NP	NP	6,221.68
	9/23/2019	6,235.53***	13.82	NP	NP	6,221.71
	3/18/2020		13.30	NP	NP	6,222.23
	6/11/2020		13.76	NP	NP	6,221.77
	9/22/2020		14.37	NP	NP	6,221.16
	12/18/2020		14.24	NP	NP	6,221.29
	3/4/2021		14.06	NP	NP	6,221.47
	5/27/2021		14.26	NP	NP	6,221.27
	8/24/2021		14.05	NP	NP	6,221.48
	12/9/2021		13.73	NP	NP	6,221.80
	3/10/2022		13.51	NP	NP	6,222.02
	5/17/2022		13.79	NP	NP	6,221.74
	9/6/2022		12.78	NP	NP	6,222.75
	11/8/2022		12.6	NP	NP	6,222.93
MW-16	10/30/2017	6,237.27	13.65	NP	NP	6,223.62
	3/28/2018		13.37	NP	NP	6,223.90
	9/14/2018		14.88	NP	NP	6,222.39



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-16	3/28/2019	6,237.27	13.60	NP	NP	6,223.67
	5/16/2019		13.40	NP	NP	6,223.87
	8/13/2019		14.45	NP	NP	6,222.82
	9/23/2019	6,237.73***	15.00	NP	NP	6,222.73
	3/18/2020		14.44	NP	NP	6,223.29
	6/11/2020		14.96	NP	NP	6,222.77
	9/22/2020		15.59	NP	NP	6,222.14
	12/18/2020		15.44	NP	NP	6,222.29
	3/4/2021		15.27	NP	NP	6,222.46
	5/27/2021		15.43	NP	NP	6,222.30
	8/24/2021		15.33	NP	NP	6,222.40
	12/9/2021		15.02	NP	NP	6,222.71
	3/10/2022		14.74	NP	NP	6,222.99
	5/17/2022		15.05	NP	NP	6,222.68
	9/6/2022		13.95	NP	NP	6,223.78
	11/8/2022		13.85	NP	NP	6,223.88
MW-17	8/13/2019	6,236.06	10.74	NP	NP	6,225.32
	9/23/2019	6,236.72***	10.96	NP	NP	6,225.76
	3/18/2020		11.32	NP	NP	6,225.40
	6/11/2020		11.33	NP	NP	6,225.39
	9/22/2020		11.24	NP	NP	6,225.48
	12/18/2020		11.39	NP	NP	6,225.33
	3/4/2021		11.55	NP	NP	6,225.17
	5/27/2021		11.55	NP	NP	6,225.17
	8/24/2021		DRY	NP	NP	DRY
	12/9/2021		DRY	NP	NP	DRY
	3/10/2022		DRY	NP	NP	DRY
	5/7/2022		NM	NM	NM	NM
	9/6/2022		NM	NM	NM	NM
	11/8/2022		NM	NM	NM	NM
MW-18	8/13/2019	6,234.97	14.92	NP	NP	6,220.05
	9/23/2019	6,235.42***	13.74	NP	NP	6,221.68
	3/18/2020		DRY	NP	NP	DRY
	6/11/2020		13.12	NP	NP	6,222.30
	9/22/2020		13.32	NP	NP	6,222.10
	12/18/2020		13.60	NP	NP	6,221.82
	3/4/2021		13.71	NP	NP	6,221.71
	5/27/2021		13.65	NP	NP	6,221.77
	8/24/2021		13.62	NP	NP	6,221.80
	12/9/2021		13.64	NP	NP	6,221.78
	3/10/2022		13.59	NP	NP	6,221.83
	5/17/2022		13.49	NP	NP	6,221.93
	9/6/2022		13.16	NP	NP	6,222.26



TABLE 1
GROUNDWATER ELEVATIONS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba County, New Mexico

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-18	11/8/2022	6,235.42***	13.03	NP	NP	6,222.39
MW-19	8/13/2019	6,231.05	11.87	NP	NP	6,219.18
	9/23/2019	6,231.51***	10.23	NP	NP	6,221.28
	3/18/2020		9.96	NP	NP	6,221.55
	6/11/2020		10.21	NP	NP	6,221.30
	9/22/2020		10.78	NP	NP	6,220.73
	12/18/2020		10.92	NP	NP	6,220.59
	3/4/2021		10.78	NP	NP	6,220.73
	5/27/2021		10.81	NP	NP	6,220.70
	8/24/2021		10.60	NP	NP	6,220.91
	12/9/2021		10.47	NP	NP	6,221.04
	3/10/2022		9.30	NP	NP	6,222.21
	5/17/2022		10.39	NP	NP	6,221.12
	9/6/2022		9.58	NP	NP	6,221.93
	11/8/2022		9.46	NP	NP	6,222.05
MW-20	8/13/2019	6,227.83	8.01	NP	NP	6,219.82
	9/23/2019	6,228.28***	8.13	NP	NP	6,220.15
	3/18/2020		7.71	NP	NP	6,220.57
	6/11/2020		8.11	NP	NP	6,220.17
	9/22/2020		8.88	NP	NP	6,219.40
	12/18/2020		8.80	NP	NP	6,219.48
	3/4/2021		8.69	NP	NP	6,219.59
	5/27/2021		8.83	NP	NP	6,219.45
	8/24/2021		NM	NM	NM	NM
	12/9/2021		8.81	NP	NP	6,219.47
	3/10/2022		NM	NM	NM	NM
	5/17/2022		NM	NM	NM	NM
	11/8/2022		NM	NM	NM	NM

Notes:

* - Top of casing elevation was resurveyed on 6/19/2013

** - Top of casing elevation was resurveyed on 1/3/2018

*** - Top of casing elevation was resurveyed on 12/19/2019

† - Oil-water interface probe did not detect phase separated hydrocarbons. Visually observed phase separated hydrocarbons using a bailer.

Groundwater elevation calculation in wells with product: (Top of Casing Elevation - Depth to Water) + (Product Thickness * 0.8)

AMSL - above mean sea level

BTOC - below top of casing

DEST - well has been destroyed

NM - not measured

P/A - plugged and abandoned

PRS - Product Recovery System present - depth to groundwater and product not measured

NP - no free phase hydrocarbons are present the well



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-1	6/4/1998	2.8	1.3	<0.5	2.3
	8/11/1998	<2.5	6.3	<0.5	<1.5
	12/9/1998	<1	<1	<1	<3
	2/10/1999	<0.5	<0.5	<0.5	<1.5
	3/30/2010	NS	NS	NS	NS
	6/22/2010	NS	NS	NS	NS
	9/16/2010	NS	NS	NS	NS
	12/9/2010	<1.0	<1.0	<1.0	<3.0
	3/10/2011	NS	NS	NS	NS
	6/15/2011	NS	NS	NS	NS
	9/13/2011	NS	NS	NS	NS
	1/6/2012	NS	NS	NS	NS
	4/6/2012	NS	NS	NS	NS
	6/12/2012	NS	NS	NS	NS
	9/27/2012	NS	NS	NS	NS
	12/7/2012	<1.0	<1.0	<1.0	<3.0
	3/6/2013	<1.0	<1.0	<1.0	<2.0
MW-2	6/4/1998	1.4	1	1.9	11
	8/11/1998	76	2.4	12	30
	12/9/1998	38	<1	10	4.5
	2/10/1999	30	<0.5	7.1	3.7
	4/27/1999	2.9	<0.5	2.1	3.0
	9/21/1999	8.5	0.8	2.2	1.9
	11/16/1999	32	0.8	3.4	7.0
	2/15/2000	57	1.2	16	2.6
	5/10/2000	<0.5	<0.5	1	<1.5
	11/2/2000	16.8	<1	2.07	<1
	2/16/2001	2.97	6.91	<1	<1
	5/10/2001	3.76	4.46	<1	<1
	10/31/2001	5.9	<2.0	<2.0	<2.0
	9/23/2003	7.7	<2.0	<2.0	<5.0
	12/17/2003	<2.0	<2.0	<2.0	<5.0
	9/18/2004	7.1	<2.0	<2.0	<5.0
	3/11/2005	4.6	<2.0	<2.0	<5.0
	6/16/2005	<2.0	<2.0	<2.0	<5.0
	9/19/2005	2.2	<2.0	<2.0	<5.0
	12/1/2005	<2.0	<2.0	<2.0	<5.0
	2/27/2006	<1.0	<1.0	<1.0	<3.0



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-2	7/14/2006	<1.0	<1.0	<1.0	<3.0
	10/6/2006	1.7	<1.0	<1.0	<3.0
	12/12/2006	<1.0	<1.0	<1.0	<3.0
	3/30/2010	<1.0	<1.0	<1.0	<3.0
	6/22/2010	<1.0	<1.0	<1.0	<3.0
	9/16/2010	<1.0	<1.0	<1.0	<3.0
	12/9/2010	<1.0	<1.0	<1.0	<3.0
	3/10/2011	<1.0	<1.0	<1.0	<3.0
	6/15/2011	<1.0	<1.0	<1.0	<3.0
	9/13/2011	<1.0	<1.0	<1.0	<3.0
	1/6/2012	<1.0	<1.0	<1.0	<3.0
	4/6/2012	<1.0	<1.0	<1.0	<3.0
	6/12/2012	<1.0	<1.0	<1.0	<3.0
	9/27/2012	<1.0	<1.0	<1.0	<3.0
	12/7/2012	<1.0	<1.0	<1.0	<3.0
	3/6/2013	<1.0	<1.0	<1.0	<2.0
MW-3	6/4/1998	470	3,800	680	6,200
	8/11/1998	500	5,200	730	5,550
	12/9/1998	90	350	540	4,240
	2/10/1999	130	810	610	4,830
	4/27/1999	220	1,300	520	4,140
	9/21/1999	110	920	470	2,930
	11/16/1999	180	1,600	440	2,620
	2/15/2000	120	1,900	640	5,120
	5/10/2000	140	1,500	370	3,650
	11/3/2000	277	3,270	552	4,350
	2/16/2001	148	2,470	328	2,580
	5/10/2001	205	3,080	593	5,820
	9/23/2003	230	530	19	1,600
	12/17/2003	260	290	24	800
	9/18/2004	170	990	530	2,300
	12/7/2004	130	400	530	2,500
	3/11/2005	130	12	200	540
	6/16/2005	330	770	2,300	3,900
	9/19/2005	160	<1.0	470	1,500
	12/1/2005	106	270	1,140	3,260
	2/27/2006	36.3	21.1	234	1,010
	10/6/2006	1.5	<1.0	11	36



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-3	12/12/2006	14.2	43.3	230	725
	3/30/2010	8.2	1.5	141	401
	6/22/2010	6.1	4.1	30.9	100
	9/16/2010	12.2	7	15.3	40
	12/9/2010	1.0	2.3	13.1	28.9
	3/10/2011	18.9	20.7	213	529
	6/15/2011	4.5	34.4	118	345
	9/13/2011	13.9	1.9	220	459
	1/6/2012	6.6	<2.0	148	333
	4/6/2012	5.0	98.3	4.4	255
	6/12/2012	4.8	122	13.4	344
	9/27/2012	11.7	248	12.0	867
	12/7/2012	11.4	403	16.4	1,250
	3/6/2013	<5.0	6.1	21	88
	6/25/2013	4.7	64	120	460
	9/24/2013	<5.0	<5.0	30	82
	12/5/2013	<5.0	<5.0	42	170
	3/18/2014	<2.0	12	82	700
	6/16/2014	3.6	92	140	880
	9/10/2014	<1.0	59	150	830
	12/3/2014	<1.0	34	220	890
	3/5/2015	<1.0	4.7	24	120
	9/23/2015	<1.0	56	67	350
	9/12/2016	<2.0	61	190	900
	10/30/2017	2.4	<1.0	32	110
	9/13/2018	2.7	<1.0	15	150
	8/24/2021	NS-FP	NS-FP	NS-FP	NS-FP
	9/6/2022	NS-FP	NS-FP	NS-FP	NS-FP
MW-4	6/4/1998	3,400	3,600	110	910
	8/11/1998	320	1,600	60	680
	12/9/1998	7,400	12,000	130	3,260
	2/10/1999	2,700	4,400	120	1,360
	4/27/1999	5,100	6,200	130	1,600
	9/21/1999	3,200	3,800	130	1,340
	2/15/2000	320	540	26	314
	5/10/2000	4,300	2,300	130	1,270
	11/2/2000	257	332	19.0	196
	2/16/2001	54	17.8	1.01	19.8



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-4	5/10/2001	2,660	2,130	34.6	792
	10/31/2001	210	420	10	260
	9/23/2003	23	6	130	59
	12/17/2003	<2.0	<2.0	<2.0	5.1
	11/16/2004	3,200	1,100	<10	520
	9/18/2004	80	170	6.7	66
	3/11/2005	<2.0	2.8	<2.0	10
	6/16/2005	310	<100	130	550
	2/27/2006	16.7	11.2	5.1	70.3
	3/30/2010	NS	NS	NS	NS
	6/22/2010	NS	NS	NS	NS
	9/16/2010	NS	NS	NS	NS
	12/9/2010	NS	NS	NS	NS
	3/10/2011	NS	NS	NS	NS
	6/15/2011	NS	NS	NS	NS
	9/13/2011	NS	NS	NS	NS
	1/6/2012	NS	NS	NS	NS
	4/6/2012	<1.0	<1.0	<1.0	<3.0
	6/12/2012	DEST	DEST	DEST	DEST
MW-5	12/9/1998	<20	2,300	300	2,720
	2/10/1999	<5	860	150	1,170
	4/27/1999	<10	1,000	130	1,150
	9/21/1999	3.2	450	97	780
	11/16/1999	5.3	1,200	170	1,520
	2/15/2000	<5	280	56	462
	5/10/2000	5.8	1,400	220	1,860
	11/2/2000	30.9	92.2	37.3	225
	2/16/2001	39.4	210	83.0	509
	5/10/2001	<1	439	218	1,180
	10/31/2001	<1.0	16	44	110
	9/23/2003	2.2	4	17	10
	12/17/2003	<10	130	64	370
	9/18/2004	<10	51	48	250
	12/7/2004	<2.0	20	17	180
	3/11/2005	12	41	43	140
	6/16/2005	<100	180	270	1,000
	9/19/2005	<1.0	400	170	1,700
	12/1/2005	12.6	176	187	961



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-5	2/27/2006	<1.0	23	78	346
	7/14/2006	<5.0	52.3	110	403
	7/16/2006	<1.0	<1.0	11.4	79
	3/30/2010	<1.0	5.1	21.1	84.5
	6/22/2010	1.0	9.4	99.4	270
	9/16/2010	NS	NS	NS	NS
	12/9/2010	NS	NS	NS	NS
	3/10/2011	NS	NS	NS	NS
	6/15/2011	NS	NS	NS	NS
	9/13/2011	NS	NS	NS	NS
	1/6/2012	NS	NS	NS	NS
	4/6/2012	NS	NS	NS	NS
	6/12/2012	NS	NS	NS	NS
	9/27/2012	NS	NS	NS	NS
	12/7/2012	<1.0	14.2	1.3	49.7
	3/6/2013	<5.0	<5.0	77	290
	6/25/2013	21	28	71	270
	9/24/2013	<5.0	9.1	44	210
	12/5/2013	<5.0	11	44	170
	3/18/2014	<5.0	16	47	210
	6/16/2014	12	34	110	460
	9/10/2014	<2.0	2.5	7.4	29
	12/3/2014	NS-FP	NS-FP	NS-FP	NS-FP
	3/5/2015	NS-FP	NS-FP	NS-FP	NS-FP
	9/23/2015	<1.0	3.0	25	89
	9/12/2016	<2.0	<2.0	32	110
	10/30/2017	<1.0	1.0	13	37
	9/13/2018	<1.1	1.0	9.6	27
	8/24/2021	NS-FP	NS-FP	NS-FP	NS-FP
	9/6/2022	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	2/10/1999	29	<0.5	7	4.6
	9/21/1999	690	330	240	1,930
	11/16/1999	370	48	130	694
	2/15/2000	9.9	0.6	5.7	22.7
	5/10/2000	390	2.6	25	400
	11/3/2000	2,570	109	226	1,690
	2/16/2001	171	11.0	12.5	33.5
	5/10/2001	506	23.2	122	384



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-6	10/31/2001	1,900	120	160	480
	12/12/2006	281	727	152	1,350
	3/30/2010	1,160	46.1	487	2,530
	6/22/2010	3,430	102	460	3,410
	9/16/2010	2,940	144	370	2,760
	12/9/2010	2,580	<20	457	2,270
	3/10/2011	1,450	<20	369	1,800
	6/15/2011	726	<1	108	380
	9/13/2011	NS	NS	NS	NS
	1/6/2012	NS	NS	NS	NS
	4/6/2012	NS	NS	NS	NS
	6/12/2012	NS	NS	NS	NS
	9/27/2012	NS	NS	NS	NS
	12/7/2012	NS	NS	NS	NS
	3/6/2013	NS-FP	NS-FP	NS-FP	NS-FP
	6/25/2013	NS-FP	NS-FP	NS-FP	NS-FP
	9/24/2013	NS-FP	NS-FP	NS-FP	NS-FP
	12/5/2013	NS-FP	NS-FP	NS-FP	NS-FP
	3/18/2014	NS-FP	NS-FP	NS-FP	NS-FP
	6/16/2014	NS-FP	NS-FP	NS-FP	NS-FP
	9/10/2014	2,100	110	850	8,700
	12/3/2014	NS-FP	NS-FP	NS-FP	NS-FP
	9/23/2015	1,100	<100	670	6,600
	3/30/2018	NS-FP	NS-FP	NS-FP	NS-FP
	9/13/2018	NS-FP	NS-FP	NS-FP	NS-FP
	9/23/2019	NS-FP	NS-FP	NS-FP	NS-FP
	3/18/2020	NS-FP	NS-FP	NS-FP	NS-FP
	9/22/2020	NS-FP	NS-FP	NS-FP	NS-FP
	3/4/2021	NS-FP	NS-FP	NS-FP	NS-FP
	8/24/2021	NS-FP	NS-FP	NS-FP	NS-FP
	9/6/2022	NS-FP	NS-FP	NS-FP	NS-FP
MW-7	9/21/1999	280	1,200	78	700
	11/16/1999	270	380	37	261
	2/15/2000	64	18	10	24.4
	5/10/2000	95	26	12	50.4
	11/3/2000	2.62	<1	<1	<1
	2/22/2001	13.0	1.16	1.40	2.97
	5/10/2001	23.4	<1	2.63	3.74



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-7	10/31/2001	6.2	<2.0	<2.0	<2.0
	9/23/2003	5.4	<2.0	<2.0	<5.0
	12/17/2003	28	<2.0	<2.0	<5.0
	9/18/2004	100	18	6.1	29
	12/7/2004	35	11	<2.0	7.3
	3/11/2005	40	<2.0	<2.0	<5.0
	6/16/2005	27	<2.0	<2.0	<5.0
	9/19/2005	110	21	9.0	43
	12/1/2005	22.6	<2.0	<2.0	<5.0
	2/27/2006	55.2	<1.0	<1.0	<3.0
	7/14/2006	<1.0	<1.0	<1.0	<3.0
	10/6/2006	460	<5.0	8.3	<15.0
	12/12/2006	202	<1.0	1.3	<3.0
	3/30/2010	137	<1.0	<1.0	<3.0
	6/22/2010	131	<1.0	<1.0	<3.0
	9/16/2010	47.7	<1.0	<1.0	<3.0
	12/9/2010	20.9	<1.0	<1.0	<3.0
	3/10/2011	73.7	<1.0	<1.0	<3.0
	6/15/2011	72.6	<1.0	<1.0	<3.0
	9/13/2011	13	<1.0	<1.0	<3.0
	1/6/2012	27.7	2.2	<1.0	<3.0
	4/6/2012	88.8	3.7	<1.0	4.4
	6/12/2012	22.0	<1.0	4.1	<3.0
	9/27/2012	37.7	2.5	21.0	11.8
	12/7/2012	64.0	3.4	12.6	18.2
	3/6/2013	110	770	67	1,200
	6/25/2013	95	180	28	510
	9/24/2013	NS-FP	NS-FP	NS-FP	NS-FP
	12/5/2013	170	730	300	2,300
	9/10/2014	86	190	140	740
	9/23/2015	43	48	94	390
	9/12/2016	98	170	74	340
	10/30/2017	60	110	13	83
	9/13/2018	1.8	3.3	<1.0	<1.5
	3/28/2019	NS-FP	NS-FP	NS-FP	NS-FP
	9/23/2019	NS-FP	NS-FP	NS-FP	NS-FP
	3/18/2020	NS-FP	NS-FP	NS-FP	NS-FP
	9/22/2020	NS-FP	NS-FP	NS-FP	NS-FP
	3/4/2021	NS-FP	NS-FP	NS-FP	NS-FP



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-7	9/6/2022	NS-FP	NS-FP	NS-FP	NS-FP
MW-8	9/21/1999	0.5	1	0.8	<1.5
	2/15/2000	0.6	1.4	0.6	<1.5
	5/10/2000	<0.5	0.6	<0.5	<1.5
	11/2/2000	<1	<1	<1	<1
	11/16/2004	<0.5	0.6	0.5	<1.5
	2/16/2001	<1	<1	<1	<1
	5/10/2001	<1	<1	<1	<1
	10/31/2001	<1.0	<2.0	<2.0	<2.0
	9/23/2003	<2.0	<2.0	<2.0	<5.0
	12/17/2003	<2.0	<2.0	<2.0	<5.0
	9/18/2004	<2.0	<2.0	<2.0	<5.0
	12/7/2004	<2.0	<2.0	<2.0	<5.0
	3/11/2005	<2.0	<2.0	<2.0	<5.0
	6/16/2005	<2.0	<2.0	<2.0	<5.0
	9/19/2005	<2.0	<2.0	<2.0	<5.0
	12/1/2005	<2.0	<2.0	<2.0	<5.0
	2/27/2006	<1.0	<1.0	<1.0	<3.0
	7/14/2006	<1.0	<1.0	<1.0	<3.0
	3/30/2010	NS	NS	NS	NS
	6/22/2010	NS	NS	NS	NS
	9/16/2010	NS	NS	NS	NS
	12/9/2010	NS	NS	NS	NS
	3/10/2011	NS	NS	NS	NS
	6/15/2011	NS	NS	NS	NS
	9/13/2011	NS	NS	NS	NS
	1/6/2012	NS	NS	NS	NS
	4/6/2012	NS	NS	NS	NS
	6/12/2012	NS	NS	NS	NS
	9/27/2012	NS	NS	NS	NS
	12/7/2012	NS	NS	NS	NS
	3/6/2013	<2.0	<2.0	<2.0	<4.0
	6/25/2013	<2.0	<2.0	<2.0	<4.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<1.0	<1.0	<1.0	<1.5
MW-9	9/21/1999	3.7	550	110	920
	2/15/2000	0.5	1.4	0.6	<1.3



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-9	5/10/2000	<0.5	1.2	<0.5	<1.5
	9/23/2003	<2.0	<2.0	<2.0	<5.0
	12/17/2003	<2.0	<2.0	<2.0	<5.0
	6/16/2005	<2.0	<2.0	<2.0	<5.0
	7/14/2006	<1.0	<1.0	<1.0	<3.0
	12/12/2006	<1.0	<1.0	<1.0	<3.0
	3/30/2010	<1.0	<1.0	<1.0	<3.0
	6/22/2010	<1.0	<1.0	<1.0	<3.0
	9/16/2010	<1.0	<1.0	<1.0	<3.0
	12/9/2010	<1.0	<1.0	<1.0	<3.0
	3/10/2011	<1.0	<1.0	<1.0	<3.0
	6/15/2011	<1.0	<1.0	<1.0	<3.0
	9/13/2011	<1.0	<1.0	<1.0	<3.0
	1/6/2012	<1.0	<1.0	<1.0	<3.0
	4/6/2012	<1.0	<1.0	<1.0	<3.0
	6/12/2012	<1.0	<1.0	<1.0	<3.0
	9/27/2012	<1.0	<1.0	<1.0	<3.0
	12/7/2012	<1.0	<1.0	<1.0	<3.0
	3/6/2013	<2.0	<2.0	<2.0	<4.0
SVE-4"	9/23/2003	<2.0	<2.0	<2.0	<5.0
	12/17/2003	<2.0	<2.0	<2.0	<5.0
	9/18/2004	<2.0	<2.0	<2.0	<5.0
	12/7/2004	<2.0	<2.0	<2.0	<5.0
	3/11/2005	<2.0	<2.0	<2.0	<5.0
	6/16/2005	5.6	<2.0	<2.0	<5.0
	9/19/2005	<2.0	<2.0	<2.0	<5.0
	12/1/2005	<2.0	2.8	<2.0	<5.0
	3/30/2010	NS	NS	NS	NS
	6/22/2010	NS	NS	NS	NS
	9/16/2010	<1.0	<1.0	<1.0	<3.0
	12/9/2010	<1.0	<1.0	<1.0	<3.0
	3/10/2011	<1.0	<1.0	<1.0	<3.0
	6/15/2011	<1.0	<1.0	<1.0	<3.0
	9/13/2011	<1.0	<1.0	<1.0	<3.0
	1/6/2012	<1.0	<1.0	<1.0	<3.0
	4/6/2012	NS	NS	NS	NS
	6/12/2012	<1.0	<1.0	<1.0	<3.0
	9/27/2012	<1.0	<1.0	<1.0	<3.0



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
SVE-4"	4/16/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<1.0	<1.0	<1.0	<1.5
MW-10	12/7/2012	NS	NS	NS	NS
	3/6/2013	<1.0	<1.0	<1.0	<2.0
	12/5/2013	<5.0	<5.0	<5.0	<10
	9/10/2014	<1.0	<1.0	<1.0	<2.0
	9/23/2015	<1.0	<1.0	<1.0	<2.0
	9/12/2016	<2.0	<2.0	<2.0	<4.0
	3/28/2017	<2.0	<2.0	<2.0	<3.0
	10/30/2017	<1.0	<1.0	<1.0	<1.5
	3/28/2018	<1.0	<1.0	<1.0	<1.5
	9/13/2018	<1.0	<1.0	<1.0	<1.5
	3/28/2019	<1.0	<1.0	<1.0	<1.5
	9/23/2019	<2.0	<2.0	<2.0	<4.0
	3/18/2020	<2.0	<2.0	<2.0	<3.0
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<1.0	<13.0	<1.0	<1.5
	9/6/2022	<1.0	<1.0	<1.0	<1.5
MW-11	12/5/2013	510	32	570	2,400
	9/10/2014	9.2	<5.0	29	180
	9/23/2015	<2.0	<2.0	7.2	30
	9/12/2016	5.2	<2.0	17	72
	3/28/2017	13	<2.0	34	160
	10/30/2017	<1.0	<1.0	<1.0	<1.5
	3/28/2018	24	<1.0	11	25
	9/13/2018	<1.0	<1.0	<1.0	<1.5
	3/28/2019	5.6	<1.0	47	170
	9/23/2019	<1.0	<1.0	<1.0	<2.0
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<2.0	<2.0	<2.0	<3.0
	9/6/2022	<2.0	<2.0	<2.0	<3.0



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-12	12/5/2013	NS-FP	NS-FP	NS-FP	NS-FP
	9/10/2014	740	360	46	200
	9/23/2015	540	76	<1.0	190
	9/12/2016	1,700	300	29	110
	3/28/2017	760	110	10	45
	10/30/2017	190	39	4.9	17
	3/30/2018	390	10	9.1	15
	9/14/2018	3,200	190	62	160
	3/28/2019	1,800	410	29	170
	9/23/2019	340	53	9.1	35
	3/18/2020	320	190	3.8	54
	9/22/2020	170	5.6	<5.0	<7.5
	3/4/2021	120	70	<1.0	30
	3/10/2022	NS-FP	NS-FP	NS-FP	NS-FP
	9/6/2022	NS-FP	NS-FP	NS-FP	NS-FP
MW-13	12/5/2013	<1.0	<1.0	<1.0	<2.0
	9/10/2014	<1.0	<1.0	<1.0	<2.0
	9/23/2015	<1.0	<1.0	<1.0	<2.0
	9/12/2016	20	<2.0	<2.0	<4.0
	3/28/2017	1.0	<1.0	<1.0	<1.5
	10/30/2017	<1.0	<1.0	<1.0	<1.5
	3/28/2018	<1.0	<1.0	<1.0	<1.5
	9/13/2018	<1.0	<1.0	<1.0	<1.5
	3/28/2019	<1.0	<1.0	<1.0	<1.5
	9/23/2019	<1.0	<1.0	<1.0	16
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	3.5	<1.0	<1.0	<2.0
	3/10/2022	170	<1.0	<1.0	<1.5
	9/6/2022	430	<1.0	3.4	3
MW-14	10/30/2017	<1.0	<1.0	<1.0	<1.5
	3/28/2018	<1.0	<1.0	<1.0	<1.5
	9/13/2018	<1.0	<1.0	<1.0	<1.5
	3/28/2019	<1.0	<1.0	<1.0	<1.5
	9/23/2019	<1.0	<1.0	<1.0	<2.0



TABLE 2
GROUNDWATER ANALYTICAL RESULTS

Dogie East Pit
Harvest Four Corners, LLC
Rio Arriba 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
MW-14	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<1.0	<1.0	<1.0	<1.5
	9/6/2022	<1.0	<1.0	<1.0	<1.5
MW-15	10/30/2017	38	310	52	340
	3/30/2018	4.4	<1.0	1.9	1.7
	9/14/2018	28	<1.0	<1.0	<1.5
	3/28/2019	4.8	<1.0	<1.0	<1.5
	9/23/2019	180	<2.0	94	62
	3/18/2020	2.1	<2.0	<2.0	<3.0
	9/22/2020	1.8	<2.0	<2.0	<3.0
	3/4/2021	8.6	<1.0	<1.0	<2.0
	8/24/2021	14	<1.0	<1.0	<2.0
	3/10/2022	5.5	<1.0	<1.0	<1.5
	9/6/2022	21	<1.0	1.5	<1.5
MW-16	10/30/2017	<1.0	<1.0	<1.0	<1.5
	3/30/2018	1.6	<1.0	<1.0	<1.5
	9/14/2018	<1.0	<1.0	<1.0	<1.5
	3/28/2019	<1.0	1.6	<1.0	2.6
	9/23/2019	<1.0	<1.0	<1.0	<2.0
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	110	<2.0	<2.0	<4.0
	3/10/2022	510	<1.0	2.7	<1.5
	9/6/2022	<1.0	<1.0	<1.0	<1.5
MW-17	8/13/2019	<1.0	<1.0	<1.0	<2.0
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	3/10/2022	DRY	DRY	DRY	DRY
	9/6/2022	DRY	DRY	DRY	DRY
MW-18	8/13/2019	<2.0	<2.0	<2.0	<4.0
	9/22/2020	<1.0	<1.0	<1.0	<1.5



TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba 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
MW-18	3/4/2021	<2.0	<2.0	<2.0	<4.0
	8/24/2021	<1.0	<1.0	<1.0	<2.0
	3/10/2022	<2.0	<2.0	<2.0	<3.0
	9/6/2022	<2.0	<2.0	<2.0	<3.0
MW-19	9/6/2019	71	160	<5	930
	3/18/2020	13	<5.0	3	11
	9/22/2020	17	<1.0	4.7	11
	3/4/2021	<1.0	<1.0	<1.0	<2.0
	8/24/2021	3.4	<1.0	1.2	<2.0
	3/10/2022	<1.0	<1.0	<1.0	<1.5
	9/6/2022	<1.0	<1.0	<1.0	<1.5
MW-20	9/6/2019	<1.0	<1.0	<1.0	<1.5
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<2.0	<2.0	<2.0	<3.0

Notes:

µg/L: milligrams per liter

J: The target analyte was positively identified below the quantitation limit and above the detection limit.

ND: not detected, practical quantitation limit unknown

NS - not sampled

NS-FP - not sampled due to the presence of free phase hydrocarbons in the well

DEST - well has been destroyed

NMWQCC: New Mexico Water Quality Control Commission

--: not analyzed

<0.037: indicates result less than the stated laboratory reporting limit (RL)

Concentrations in **bold** and shaded exceed the New Mexico Water Quality Control Commission Standards, 20.6.2 of the New Mexico Administrative Code



TABLE 3
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
3/14/2018	0	0	48	57:33:00	0.00	15.62	16.03	0.41	12.8	ON	NO	Installed system in MW-6.
3/20/2018	18	5:23:11	66	5:23:11	0.07			0.0	13	ON	NO	1/8 inches of product in barrel.
6/26/2018	88	19:01:02	147	19:03:24	0.34			0.0	12.9	ON	NO	Trace fluids in barrel.
7/16/2018	167	38:23:08	226	39:01:29	0.65			0.0	12.9	ON	NO	1/16 inches in barrel. Approximately 0.5 ounce recovered per cycle.
8/10/2018	267	63:23:13	326	64:01:35	1.34	15.97	16.06	0.09	12.9	ON	NO	No product in barrel. Ran one cycle and recovered approximately 0.5 ounce.
8/29/2018	343	82:22:02	402	83:00:24	1.34			0.0	12.8	ON	NO	Run one cycle with 2 hours left on delay recovered ~ 2.0 ounces of product. 1/4 inches of product in barrel. Cleaned pump and skimmer as well as solar panel. Adjusted solar panel to 54° for fall and winter.
9/14/2018	408	98:23:04	467	49:01:26	2.36	17.06	17.10	0.04	12.8	ON	NO	Adjusted the skimmer depth to center skimmer at 17.10 feet. Changed the vac setting to 6 seconds after observing product in the air line. Desiccant tanks were both 100% full the top dryer desiccant will need to be replaced soon.
11/6/2018	620	151:05:04	679	152:02:04	4.84	17.01	17.08	0.07	12.7	ON	YES	Low battery voltage at 137:04:18. 4 inches of product in barrel. 1.5 ounces of recovery per cycle. Replaced desiccant in both dryers. Delay left at 6 hours.
11/28/2018	708	174:00:00	767	174:02:22	5.87	17.72	17.75	0.03	12.7	ON	NO	Changed vac to 5 seconds. Delay lowered to 4 hours.
1/21/2019	1,032	228:01:52	1,091	228:04:14	9.67	16.44	17.27	0.83	12.7	ON	NO	Changed vac to 10 seconds, pressure left at 30 seconds, pump depth midstroke depth was 17 feet, moved pump up 4 inches.
2/26/2019	219	35:23:23	1,310	8:03:41	12.23	16.27	16.3	0.03	12.7	ON	NO	Cleaned and adjusted skimmer to center at 16.30 feet. 5 inches of product in barrel.



TABLE 3
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
3/28/2019	400	66:03:31	1,491	38:07:51	14.36		15.9	0	NM	ON	NO	Cleaned skimmer, 14 inches of product in barrel, pump depth was 16 feet.
4/16/2019	513	84:22:48	1,604	57:03:07	14.58		15.89	0.0	12.9	ON	NO	No product observed in well. Clean skimmer and solar panel. Adjust delay to 14 hours.
5/16/2019	565	115:02:33	1,651	87:06:52	14.58		15.98	0.0	NM	ON	NO	No product observed in well. Clean skimmer and solar panel.
9/6/2019	570	115:09:18	1,661	87:09:17	14.58	17.05	17.52	0.47	12.7	ON	NO	PSH observed in MW-6 skimmer was reinstalled in well.
9/23/2019	605	132:00:24	1,696	104:04:42	14.58	17.37	17.53	0.16	12.8	ON	NO	Cracks observed in air lines, recommend replacing next O&M visit.
11/18/2019	718	188:02:53	1,809	160:07:11	14.58	17.03	17.53	0.5	12.7	ON	NO	Disassembled sipper to move to Florance 47X.
12/19/2019	NA	NA	NA	NA	14.94	16.86	17.77	0.91	NA	NA	NA	Product sock in MW-6 100% saturated. Replace sock in MW-6. Bailed 30 ounces of PSH from MW-6.
3/18/2020	NA	NA	NA	NA	15.08	16.6	17.21	0.91	NA	NA	NA	Replaced sock in MW-7
3/26/2020	NA	NA	NA	NA	15.21	16.55	17.11	0.91	NA	NA	NA	Re-install sipper on MW-6
4/15/2020	8	01:06:06	818	0030:21:09	15.27	16.55	17.31	0.76	11.7	ON	NO	1 oz recovered in cycle. 4" of product in barrel. Solar panel cannot adjust to correct angle for summer months (21 degrees).
4/30/2020	32	16:03:32	842	0045:18:36	15.46	16.59	17.36	0.79	11.5	ON	NO	1 oz recovered in cycle. 4" of product in barrel. Solar panel cannot adjust to correct angle for summer months (21 degrees).



TABLE 3
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
5/27/2020	43	21:22:31	853	59:13:34:49	15.54	16.88	17.94	1.06	11.6	ON	NO	1 oz. recovered per cycle. Change angle of solar panel to 23 degrees.
6/11/2020	45	29:22:37	855	59:13:40:46	15.56	17.03	18.20	1.17	12.4	ON	YES	Low battery fault charge battery with jumper cables to 12.4 volts and run one cycle.
6/25/2020	46	29:22:38	856	59:13:42:33	15.57	17.04	18.33	1.29	11.9	ON	YES	Low battery fault charge battery with jumper cables to 11.9 volts and run three cycles.
7/24/2020	49	29:22:47	859	59:13:51	15.59	17.32	19.10	1.78	11.2	ON	NO	Low battery charge.
8/6/2020	69	30:13:56	879	60:04:55	15.83	17.21	18.55	1.34	11.7	ON	NO	Battery needs replacement soon. Install pump in MW-7.
8/18/2020	109	40:10:27	919	70:01:27	15.98	17.36	18.95	1.59	11.3	ON	NO	0.5 oz. recovered in cycle
9/22/2020	122	44:22:31	932	74:13:30	16.03	17.51	19.30	1.79	11.6	ON	NO	Annual GW sampling event.
10/29/2020	-	-	-	-	16.03	17.55	19.29	1.74	-	OFF	-	System down, solar panel not charging battery.
12/18/2020	-	-	-	-	16.31	17.44	18.76	1.32	-	OFF	-	Bailed 36.3 oz. yellow product and three gallons black/gray H2O.
2/3/2020	135	44:22:52	945	74:13:52	16.47	17.41	18.53	1.12	12.6	ON	NO	Replaced battery for system, cleaned solar panel. Rest pump depth to 15.50. Ran 1 cycle 2oz PSH discharged. Delay = 12 hours, Vac = 6 sec. Pressure = 30 sec.
2/19/2021	159	48:17:30	969	78:08:31	16.94	17.4	18.45	1.05	12.6	ON	NO	Check valve stuck in "up position", cleaned pump and returned check valve to normal operation.



TABLE 3
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
3/4/2021	160	185:04:09	970	68:09:59	17.23	17.31	18.10	0.79	12.5	ON	NO	12 hour delay. 2 ounces recovered per cycle
3/16/2021	204	61:03:25	1,014	78:08:31	17.86	17.37	18.33	0.96	12.5	ON	NO	Clean and reset pump at depth. 12" in recovery bbl
4/16/2021	262	75:19:42	1,072	105:10:42	18.60	17.36	18.14	0.78	12.4	ON	NO	16" of product in barrel. Clean pump and float.
4/29/2021	314	88:20:29	1,124	118:11:30	19.29	17.37	18.16	0.79	12.4	ON	NO	Sample SVE-4 and MW-8 to monitor cross gradient plume migration.
5/27/2021	426	116:14:41	1,236	146:05:41	20.44	17.47	18.53	1.06	12.3	ON	NO	Repaired cracked vacuum tubing, ran 1 cycle and discharge ~ 1 oz of product. MW-6 pump depth set to 15.47. Set delay to 10 hours. 8" of product in bbl
6/21/2021	549	141:12:40	1,360	171:03:41	21.69	17.47	19.24	1.77	14.1	ON	NO	
7/15/2021	666	165:10:29	1,476	195:01:29	22.89	17.91	19.38	1.47	14.3	ON	NO	
8/24/2021	858	205:08:15	1,668	234:23:16	24.67	17.46	18.33	0.87	12.4	ON	NO	
9/28/2021	1,024	240:04:42	1,838	13:19:42:33	26.25	17.53	18.51	0.98	12.2	ON	NO	Reset pump at 14.53 feet.
10/11/2021	1,096	253:02:58	1,906	26:17:59	27.10	17.4	18.18	0.78	12.2	ON	NO	Clean and reset pump depth to 15.2, reset delay to 8 hours, changed vac to 15 seconds, changed pressure to 30 seconds. Repair/replace vacuum lines.
12/9/2021	1,321	34:12:25	2,131	64:03:25	29.14	16.97	17.26	0.29	12.8	ON	Intake Override	Clean and reset pump.



TABLE 3
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
12/29/2021	1,332	36:04:25	2,142	65:19:25	29.51	17.2	17.35	0.15	12.6	On	Intake Override	Clear fault drain air line. Reset pump.
2/8/2022	1,362	40:04:40	2,172	69:19:40	30.26	17.16	17.19	0.03	12.3	ON	Intake Override	Clear fault drain air lines, lower vacuum to 8 seconds.
3/10/2022	1,369	40:20:48	2,179	70:11:48	30.60	17.04	17.07	0.03	13	ON	Intake Override	Clear fault and reset pump depth. Increase delay to 12 hours.
6/3/2022	1,458	59:05:29	2,268	88:20:29	31.58	17.53	17.65	0.12	12.4	ON	NO	Reset pump depth. Clean solar panel. 6.75" in recovery barrel.
7/6/2022	1,662	92:05:00	2,472	121:20:00	33.45	17.44	17.62	0.18	12.3	ON	No	
8/1/2022	1,728	106:05:12	2,538	135:20:12	34.25	16.75	16.76	0.01	12.3	ON	No	Increased delay to 18 hours, set pump to 13.75', 8" in recovery barrel
8/19/2022	1,746	--	2556	--	34.68	NP	16.38	0	12.3	ON	NO	No product observed in well, pump pulled from well and controller turned off.

Notes:

PSH: phase separated hydrocarbons

O&M: operations and maintenance

BTOC: below top of casing

NA: not applicable

NM: not measured

NP: no product observed



TABLE 4
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-7
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
12/19/2019	-	-	-	-	0.14	13.39	13.95	0.56	-	-	-	Bailed 18 oz and installed sock
3/18/2020	-	-	-	-	0.27	13.15	13.48	0.33	-	-	-	Replaced sock in MW-7
3/26/2020	-	-	-	-	0.33	13.08	13.35	0.27	-	-	-	Bailed 7.5 oz
4/15/2020	-	-	-	-	0.54	13.1	13.38	0.28	-	-	-	Bailed 9 oz replaced sock
4/30/2020	-	-	-	-	0.70	13.16	13.36	0.2	-	-	-	Bailed 3.5 oz. replaced sock
5/27/2020	-	-	-	-	0.87	13.46	13.66	0.2	-	-	-	Bailed 5 oz. sock 100% saturated, replaced sock.
6/11/2020	-	-	-	-	1.16	13.48	14.35	0.87	-	-	-	Bailed 21 oz. sock 100% saturated, replaced sock
6/25/2020	-	-	-	-	1.44	13.62	14.52	0.9	-	-	-	Bailed 18 oz. sock 100% saturated with yellow product, replaced sock
7/24/2020	-	-	-	-	2.09	13.78	15.22	1.44	-	-	-	Bailed 66 oz. pale yellow product. Replaced sock.
8/6/2020	69	30:13:56	879	60:04:55	2.22	13.85	14.43	0.58	11.7	ON	NO	Sock 100% saturated. Installed solar sipper PSH recovery pump in well MW-7. 1.5 oz recovered per cycle
8/17/2020	109	40:10:27	919	70:01:27	2.69	13.96	14.81	0.85	11.3	ON	NO	2 oz. recovered in cycle. Vac: 25 sec, Pres: 30 sec, Del: 18hr
9/22/2020	122	44:22:31	932	74:13:30	2.89	14.06	15.21	1.15	11.6	ON	NO	Annual GW sampling event.
10/29/2020	-	-	-	-	2.89	14.10	15.27	1.17	-	OFF	-	System down, solar panel not charging battery.
12/18/2020	-	-	-	-	3.01	13.9	15.02	1.12	-	OFF	-	Bailed 15.6 oz. yellow/orange product and three gallons gray H2O.



TABLE 4
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-7
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
2/3/2021	135	44:22:52	945	74:13:52	3.31	13.86	14.78	0.92				Bailed 15.6 oz. yellow/orange product and three gallons gray H2O.
2/19/2021	159	48:17:30	969	78:08:31	3.40	13.91	14.72	0.81				~10" of PSH in bbl. 1 oz. per cycle.
3/4/2021	160	49:09:28	970	79:00:28	3.41	13.76	14.59	0.83				16 hour delay. 1 ounce per cycle
3/16/2021	204	61:03:25	1,014	90:18:25	3.58	13.82	14.59	0.77				12" in recovery bbl, 1 ounce per cycle.
4/16/2021	262	75:19:42	1,072	105:10:42	3.80	13.96	14.47	0.51				Clean pump and float. 14" in barrel
4/29/2021	314	88:20:29	1,124	118:11:30	4.01	13.88	14.5	0.62				12" in recovery bbl, 1 ounce per cycle.
5/27/2021	426	116:14:41	1,236	146:05:41	4.45	14.05	14.77	0.72				Repaired cracked vacuum tubing, ran 1 cycle and discharge ~ 1 oz of product. Pump depth set to 11.00. Set delay to 10 hours. 1" of product in bbl
6/21/2021	549	141:12:40	1,360	171:03:41	4.93	14.23	15.42	1.19				
7/15/2021	666	165:10:29	1,476	195:01:29	5.38	14.49	15.38	0.89				
8/24/2021	858	205:08:15	1,668	234:23:16	6.13	13.92	14.59	0.67				
9/28/2021	1,024	240:04:42:14	1,838	13:19:42:33	6.80	14.01	15.06	1.05				Reset pump at 11.01
10/11/2021	1,096	253:05:58	1,906	26:17:59	7.06	13.78	14.33	0.55				Reset pump to 11.33, change delay to 8 hours, vac set at 15 seconds, pressure set at 30 seconds, repair/replace vacuum lines.
12/2/2021	1,321	34:12:25	2,131	64:03:25	7.94	13.6	13.69	0.09				Clean and reset pump.
12/29/2021	1,332	36:04:25	2,142	65:19:25	7.98	13.64	13.71	0.07	12.6	On	Intake override	Clear fault drain air line.



TABLE 4
PNEUMATIC PRODUCT RECOVERY SYSTEM DATA - MW-7
 Dogie East Pit
 Harvest Four Corners, LLC
 Rio Arriba County, New Mexico

Date	Runtime Cycles	Run Time	Lifetime Cycles	Lifetime Run Time	Estimated Product Recovered (gallons)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Faults	Notes/Maintenance Completed
2/8/2022	1,362	40:04:40	2,172	69:19:40	8.22	NP	13.61	0	12.3	On	Intake Override	Clear fault drain air lines, lower vacuum to 8 seconds.
3/10/2022	1,369	40:20:48	2,179	70:11:48	8.25	13.51	13.52	0.01	13	On	Intake Override	Clear fault and reset pump depth. Increase delay to 12 hours.
6/3/2022	1,458	59:05:29	2,268	88:20:29	8.59	13.97	14.05	0.08	12.4	ON	NO	Reset pump depth. Clean solar panel. 6.75" in recovery barrel.
7/6/2022	1,622	92:05:00	2,472	121:20:00	9.39	13.74	14.36	0.62	12.3	ON	Intake Override	Attempted to resolve issue with MW07 pump in field, had to remove and install sock.
7/21/2022	1,720	106:03:42	2,530	135:18:42	9.39	13.9	14.3	0.4	12.3	Off		Re-installed serviced pump in MW07, set to 10 sec vacuum, 40 pressure, 12 hour delay
8/1/2022	1,728	106:05:12	2,538	135:20:20	9.42	NP	13.14	0	12.3	On		Set 10 sec vac, 30 sec pressure, 18 hour delay, set pump to 10.14', 7.25" in recovery barrel
8/19/2022	1,746	--	2,556	--	9.49	NP	12.82	0	12.3	ON	NO	No product observed in well, pump pulled from well and controller turned off.

Notes:

PSH: phase separated hydrocarbons

O&M: operations and maintenance

BTOC: below top of casing

NA: not applicable

NM: not measured

NP: no product observed



APPENDIX A

Groundwater Collection Forms

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/22	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	13:20	Project #	N/R
Sample ID	SVE-4	Sampler	Eric Carroll
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	15.64	TD of Well	22.84
Time		Depth to Product	N/A
Vol. of H2O to purge	14		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Boiler		
Method of Sampling	Boiler		

[illegible]

Comments: Gray brown NO Sheen/odor

Describe Deviations from SOP:

Signature: 

Date: 3/10/22

[illegible]

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	12:40	Project #	NR
Sample ID	MW-8	Sampler	Eric Carroll
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	12.60	TD of Well	21.58
Time		Depth to Product	NA
Vol. of H2O to purge	4.3		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Bailer		
Method of Sampling	Bailer		

[illegible]**Comments:**

Describe Deviations from SOP:

Signature: W. J. Cross

Date: 3/10/22

[illegible]

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	12:30	Project #	N/A
Sample ID	MW-10	Sampler	Eric Carroll
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	9.65	TD of Well	15.12
Time		Depth to Product	N/A
Vol. of H2O to purge	2.65		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	2-bbl Bailer		
Method of Sampling	Bailer		

[illegible]

Describe Deviations from SOP: sampled after 1.5 gallons due to well starting to go dry

Signature: George Palase

Date: 3/10/2022

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/2022	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	MW-12	Project #	
Sample ID	NS-FP	Sampler	GP
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	15.51	TD of Well	19.02
Time		Depth to Product	—
Vol. of H2O to purge	NS-FP		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Bailer		
Method of Sampling	Bailer		

[illegible]

Comments: No sample taken, Shear in boiler

Describe Deviations from SOP:

Signature: Gregory Pulise

Date: 3/10/2022

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/2022	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	12:03	Project #	NR
Sample ID	MW-13	Sampler	GP
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	15.42	TD of Well	18.38
Time		Depth to Product	
Vol. of H2O to purge	$(18.38 - 15.42) \times 0.1631 \times 3 = 1.44$ <small>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</small>		
Method of Purging	Bailer		
Method of Sampling	Bailer		

[illegible]

Comments: _____

Describe Deviations from SOP: Sampled after 0.5 gallons due to well starting to bail dry

Signature: Brian Palese Date: 3/10/2022

Sample Location Dogie Compressor Station

Client Harvest Four Corners, LLC

Sample Date 3/10

Project Name Dogie East Pit Groundwater Monitoring

Sample Time 12:00

Project # NR

Sample ID MW-14

Sampler Eric Carroll

Analyses BTEX 8021

Matrix	Groundwater
--------	-------------

Laboratory Hall Environmental

Turn Around Time	Standard
------------------	----------

Courier

Depth to Water 12.32

TD of Well 1904

Time _____

Depth to Product 1/1

Vol. of H ₂ O to purge	3.2
-----------------------------------	-----

(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Purging *Builer* ✓

Method of Sampling Boyle ✓

[illegible]

Comments: Turbid Ruddy No Sheen/Odd

Describe Deviations from SOP:

Signature: Erin Carson

Date: 3/15/22

[illegible]

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/2022	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	13:11	Project #	
Sample ID	MW-16	Sampler	GP
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	14.74	TD of Well	18.55
Time		Depth to Product	NA
Vol. of H2O to purge	1.86		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Bailer		
Method of Sampling	Bailer		

[illegible]

Comments: _____

Describe Deviations from SOP:

Signature: Gregory Pales Date: 3/10/2022

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/22	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	13.55	Project #	
Sample ID	MW-19	Sampler	Eric Carroll
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	13.59	TD of Well	15.77
Time	13.59	Depth to Product	X
Vol. of H2O to purge	0.75		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Barrier		
Method of Sampling	Barrier		

[illegible]

Comments: Grab sample

Describe Deviations from SOP: Grab Sample insufficient water

Signature: *[Handwritten Signature]*

Date: 3/10/22

Sample Location	Dogie Compressor Station	Client	Harvest Four Corners, LLC
Sample Date	3/10/19	Project Name	Dogie East Pit Groundwater Monitoring
Sample Time	14:10	Project #	
Sample ID	MW-19	Sampler	Eric Carroll
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard		Courier
Depth to Water	7.30	TD of Well	15.45
Time		Depth to Product	NA
Vol. of H2O to purge	3		
	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	Bailer		
Method of Sampling	Bailer		

[illegible]

Comments: Dry @ 1-25 gallons

Describe Deviations from SOP: sampled after 1.75 gallons purger running dry

Signature:

Date:

Project Name: Dogie CS
Project Number: NR

Sample Date: 9-6-22

Sample Time: NS-FP

Sample ID: MW 3

Analyses: 1

Matrix: GW

Depth to Water: 14.57

Time: 1 Total Depth of Well: 116
Depth to Product: 164

Total Depth of Well: *NR*

Depth to Product: NA

Vol. of Water to Purge: NR

Method of Purging: Boiler (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Sampling: Baiter

(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Comments: Sock 40% saturated, Sheen and Fp on water
reinstall sock
Bail 2 gallons liquid

Describe Deviations from SOP:

Signature:  Date: 9-6-22

Date: 9-6-22

Customer Sample Collection Form

Date: 9-6-21

Project Name: Dogie CS
Project Number: NR
Sample Location: Dogie CS Sampler: E. Carroll
Sample Date: 9-6-22
Sample Time: NS obstruction
Sample ID: MW8
Analyses: BTEX
Matrix: GW

Depth to Water: 11.70
Time:

Total Depth of Well: NR
Depth to Product: _____

Vol. of Water to Purge: NR (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Purging: Bailer

Method of Sampling: Bailer

[illegible]

Comments: well Bent 2" bailer does not fit

Describe Deviations from SOP: _____

Signature: exo Date: 9-6-72

Date: 9-6-72

Project Name: Dogie CS
Project Number: NR
Sample Location: Dogie CS
Sampler: E. Carroll
Sample Date: 9-6-72
Sample Time: 12:45
Sample ID: MW 10
Analyses: BTEX
Matrix: GELW
Depth to Water: 7.43
Time:
Total Depth of Well: 9.56
Depth to Product:
of Water to Purge: 1.0
Method of Purging: Bailor
Method of Sampling: Bailor
(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vol

[illegible]

Comments: Root ball in well grab sample taken

Describe Deviations from SOP:

Signature: A V

Date: 8-6-72

Project Name: Dogie CS
Project Number: NR
Sample Location: Dogie CS
Sampler: E. Carroll
Sample Date: 9-6-72
Sample Time: 1300
Sample ID: NW 11
Analyses: BTEX
Matrix: CW
Depth to Water: 8.43
Time:
Total Depth of Well: 15.00
Depth to Product: NA
Height of Water Column to Purge: 3.2
Method of Purging: Barrier
Method of Sampling: Barrier

[illegible]

Comments: Turbid 1K. brown No Sheen/Odor

Describe Deviations from SOP: _____

Signature: Eric Caruso Date: 9-6-77

(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Signature: Eno M

Project Name: Dogie CS
Project Number: NR

Sample Date: 9-6-22

Sample Time: 12:16

Sample ID: MW14

Analyses: BTE

Matrix: G_H

Depth to Water: 12.00 Total Depth of Well: 19.00

Time: _____

Total Depth of Well: 19.00

Depth to Product: N/A

Vol. of Water to Purge: 3.5 (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Purging: Direct

Method of Sampling: Reiter

[illegible]

Comments: Turbid brown NO green/odor

Describe Deviations from SOP:

Signature: Eric Camp Date: 9-6-22

Date: 9-6-22

Project Name: Dogic CS

Project Number:

Sample Location: Dogie CS

Sampler: E. Carroll

Sample Date: 9-6-22

Sample Time: 13:50

Sample ID: MW 15

Analyses: BTE x

Matrix: $\frac{DLE}{GL}$

Depth to Water: 12.78

Time:

Total Depth of Well: 20.7

Depth to Product: 1CA

Vol. of Water to Purge: 3 g

Method of Purging: Brillier

Method of Sampling: Baile

(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Comments: Gray brown No Green / 2001

Describe Deviations from SOP:

Signature:

Date:

Project Name: Dogie CS
Project Number: NR

Sample Date: 7-6-22

Sample Time: 14.10

Sample ID: MW 18

Analyses: BTEX

Matrix: G_H

Depth to Water: 13.16 Total Depth of Well: 14.98

Total Depth of Well: 14.98

Time: _____ Depth to Product: NA

Depth to Product: NA

Vol. of Water to Purge: 0.89 (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vol

Method of Purging:

Method of Sampling:

Comments: Sample collected after 0.75 well ran dry

Describe Deviations from SOP:

Signature: C. A. [Signature] Date: 9-6-22

Date: 9-6-22

Project Name: Dogie CS
Project Number: 168

Sample Date: 9-6-22

Sample Time: 14:20

Sample ID: MW 19

Analyses: BTEX

Matrix: G_N

Depth to Water: 9.58 Total Depth of Well: 15.43

Time: _____

Total Depth of Well: 15.43

Depth to Product: NA

Vol. of Water to Purge: 2.8 (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vol

Method of Purging: Boiler

Method of Sampling: Boiler

[illegible]

Comments: Clear colorless NO sheen/odor

Describe Deviations from SOP:

Signature:  Date: 9-6-22

Date: 9-8-22



APPENDIX B

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

March 18, 2022

Eric Carroll

Harvest

1755 Arroyo Dr.

Bloomfield, NM 87413

TEL: (505) 632-4475

FAX:

RE: Dogie

OrderNo.: 2203757

Dear Eric Carroll:

Hall Environmental Analysis Laboratory received 10 sample(s) on 3/15/2022 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 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 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: SVE-4

Project: Dogie

Collection Date: 3/10/2022 1:20:00 PM

Lab ID: 2203757-001

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	1.0		µg/L	1	3/15/2022 7:54:00 PM	R86460
Toluene	ND	1.0		µg/L	1	3/15/2022 7:54:00 PM	R86460
Ethylbenzene	ND	1.0		µg/L	1	3/15/2022 7:54:00 PM	R86460
Xylenes, Total	ND	1.5		µg/L	1	3/15/2022 7:54:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	3/15/2022 7:54:00 PM	R86460
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	3/15/2022 7:54:00 PM	R86460
Surr: Dibromofluoromethane	104	70-130		%Rec	1	3/15/2022 7:54:00 PM	R86460
Surr: Toluene-d8	98.4	70-130		%Rec	1	3/15/2022 7:54:00 PM	R86460

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-8

Project: Dogie

Collection Date: 3/10/2022 12:40:00 PM

Lab ID: 2203757-002

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	1.0		µg/L	1	3/15/2022 8:17:00 PM	R86460
Toluene	ND	1.0		µg/L	1	3/15/2022 8:17:00 PM	R86460
Ethylbenzene	ND	1.0		µg/L	1	3/15/2022 8:17:00 PM	R86460
Xylenes, Total	ND	1.5		µg/L	1	3/15/2022 8:17:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	3/15/2022 8:17:00 PM	R86460
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	3/15/2022 8:17:00 PM	R86460
Surr: Dibromofluoromethane	102	70-130		%Rec	1	3/15/2022 8:17:00 PM	R86460
Surr: Toluene-d8	98.6	70-130		%Rec	1	3/15/2022 8:17:00 PM	R86460

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-10

Project: Dogie

Collection Date: 3/10/2022 12:15:00 PM

Lab ID: 2203757-003

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	1.0		µg/L	1	3/15/2022 8:40:00 PM	R86460
Toluene	ND	1.0		µg/L	1	3/15/2022 8:40:00 PM	R86460
Ethylbenzene	ND	1.0		µg/L	1	3/15/2022 8:40:00 PM	R86460
Xylenes, Total	ND	1.5		µg/L	1	3/15/2022 8:40:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	3/15/2022 8:40:00 PM	R86460
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	3/15/2022 8:40:00 PM	R86460
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	3/15/2022 8:40:00 PM	R86460
Surr: Toluene-d8	96.0	70-130		%Rec	1	3/15/2022 8:40:00 PM	R86460

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	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 range due to dilution or matrix interference		

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Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-11

Project: Dogie

Collection Date: 3/10/2022 12:30:00 PM

Lab ID: 2203757-004

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	2.0	D	µg/L	2	3/15/2022 9:03:00 PM	R86460
Toluene	ND	2.0	D	µg/L	2	3/15/2022 9:03:00 PM	R86460
Ethylbenzene	ND	2.0	D	µg/L	2	3/15/2022 9:03:00 PM	R86460
Xylenes, Total	ND	3.0	D	µg/L	2	3/15/2022 9:03:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	105	70-130	D	%Rec	2	3/15/2022 9:03:00 PM	R86460
Surr: 4-Bromofluorobenzene	97.6	70-130	D	%Rec	2	3/15/2022 9:03:00 PM	R86460
Surr: Dibromofluoromethane	101	70-130	D	%Rec	2	3/15/2022 9:03:00 PM	R86460
Surr: Toluene-d8	96.4	70-130	D	%Rec	2	3/15/2022 9:03:00 PM	R86460

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-13

Project: Dogie

Collection Date: 3/10/2022 12:03:00 PM

Lab ID: 2203757-005

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	170	10		µg/L	10	3/16/2022 1:25:00 PM	SL86502
Toluene	ND	1.0		µg/L	1	3/15/2022 9:26:00 PM	R86460
Ethylbenzene	ND	1.0		µg/L	1	3/15/2022 9:26:00 PM	R86460
Xylenes, Total	ND	1.5		µg/L	1	3/15/2022 9:26:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	3/15/2022 9:26:00 PM	R86460
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	3/15/2022 9:26:00 PM	R86460
Surr: Dibromofluoromethane	101	70-130		%Rec	1	3/15/2022 9:26:00 PM	R86460
Surr: Toluene-d8	97.7	70-130		%Rec	1	3/15/2022 9:26:00 PM	R86460

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-14

Project: Dogie

Collection Date: 3/10/2022 12:00:00 PM

Lab ID: 2203757-006

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0	P	µg/L	1	3/15/2022 9:49:00 PM	R86460
Toluene	ND	1.0	P	µg/L	1	3/15/2022 9:49:00 PM	R86460
Ethylbenzene	ND	1.0	P	µg/L	1	3/15/2022 9:49:00 PM	R86460
Xylenes, Total	ND	1.5	P	µg/L	1	3/15/2022 9:49:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	103	70-130	P	%Rec	1	3/15/2022 9:49:00 PM	R86460
Surr: 4-Bromofluorobenzene	100	70-130	P	%Rec	1	3/15/2022 9:49:00 PM	R86460
Surr: Dibromofluoromethane	102	70-130	P	%Rec	1	3/15/2022 9:49:00 PM	R86460
Surr: Toluene-d8	95.2	70-130	P	%Rec	1	3/15/2022 9:49:00 PM	R86460

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	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 range due to dilution or matrix interference		

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Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-15

Project: Dogie

Collection Date: 3/10/2022 2:00:00 PM

Lab ID: 2203757-007

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	5.5	1.0	P	µg/L	1	3/15/2022 10:11:00 PM	R86460
Toluene	ND	1.0	P	µg/L	1	3/15/2022 10:11:00 PM	R86460
Ethylbenzene	ND	1.0	P	µg/L	1	3/15/2022 10:11:00 PM	R86460
Xylenes, Total	ND	1.5	P	µg/L	1	3/15/2022 10:11:00 PM	R86460
Surr: 1,2-Dichloroethane-d4	103	70-130	P	%Rec	1	3/15/2022 10:11:00 PM	R86460
Surr: 4-Bromofluorobenzene	98.1	70-130	P	%Rec	1	3/15/2022 10:11:00 PM	R86460
Surr: Dibromofluoromethane	99.2	70-130	P	%Rec	1	3/15/2022 10:11:00 PM	R86460
Surr: Toluene-d8	96.9	70-130	P	%Rec	1	3/15/2022 10:11:00 PM	R86460

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-16

Project: Dogie

Collection Date: 3/10/2022 1:11:00 PM

Lab ID: 2203757-008

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	510	10		µg/L	10	3/16/2022 6:47:00 PM	SL86502
Toluene	ND	1.0		µg/L	1	3/16/2022 1:48:00 PM	SL86502
Ethylbenzene	2.7	1.0		µg/L	1	3/16/2022 1:48:00 PM	SL86502
Xylenes, Total	ND	1.5		µg/L	1	3/16/2022 1:48:00 PM	SL86502
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	3/16/2022 1:48:00 PM	SL86502
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	3/16/2022 1:48:00 PM	SL86502
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	3/16/2022 1:48:00 PM	SL86502
Surr: Toluene-d8	95.6	70-130		%Rec	1	3/16/2022 1:48:00 PM	SL86502

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	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 range due to dilution or matrix interference		

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Analytical Report

Lab Order 2203757

Date Reported: 3/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW-18

Project: Dogie

Collection Date: 3/10/2022 1:15:00 PM

Lab ID: 2203757-009

Matrix: AQUEOUS

Received Date: 3/15/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	2.0	PD	µg/L	2	3/16/2022 2:57:00 PM	SL86502
Toluene	ND	2.0	PD	µg/L	2	3/16/2022 2:57:00 PM	SL86502
Ethylbenzene	ND	2.0	PD	µg/L	2	3/16/2022 2:57:00 PM	SL86502
Xylenes, Total	ND	3.0	PD	µg/L	2	3/16/2022 2:57:00 PM	SL86502
Surr: 1,2-Dichloroethane-d4	105	70-130	PD	%Rec	2	3/16/2022 2:57:00 PM	SL86502
Surr: 4-Bromofluorobenzene	97.0	70-130	PD	%Rec	2	3/16/2022 2:57:00 PM	SL86502
Surr: Dibromofluoromethane	99.8	70-130	PD	%Rec	2	3/16/2022 2:57:00 PM	SL86502
Surr: Toluene-d8	93.7	70-130	PD	%Rec	2	3/16/2022 2:57:00 PM	SL86502

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	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 range due to dilution or matrix interference		

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CLIENT: Harvest

Project: Dogie

Lab ID: 2203757-010

Client Sample ID: MW-19

Collection Date: 3/10/2022 2:10:00 PM

Received Date: 3/15/2022 7:30:00 AM

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	1.0	P	µg/L	1	3/16/2022 3:43:00 PM	SL86502
Toluene	ND	1.0	P	µg/L	1	3/16/2022 3:43:00 PM	SL86502
Ethylbenzene	ND	1.0	P	µg/L	1	3/16/2022 3:43:00 PM	SL86502
Xylenes, Total	ND	1.5	P	µg/L	1	3/16/2022 3:43:00 PM	SL86502
Surr: 1,2-Dichloroethane-d4	106	70-130	P	%Rec	1	3/16/2022 3:43:00 PM	SL86502
Surr: 4-Bromofluorobenzene	99.0	70-130	P	%Rec	1	3/16/2022 3:43:00 PM	SL86502
Surr: Dibromofluoromethane	99.4	70-130	P	%Rec	1	3/16/2022 3:43:00 PM	SL86502
Surr: Toluene-d8	92.4	70-130	P	%Rec	1	3/16/2022 3:43:00 PM	SL86502

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	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 range due to dilution or matrix interference		

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

WO#: 2203757

18-Mar-22

Client: Harvest

Project: Dogie

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: R86460		RunNo: 86460							
Prep Date:	Analysis Date: 3/15/2022		SeqNo: 3052230		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	115	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: MB	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: R86460		RunNo: 86460							
Prep Date:	Analysis Date: 3/15/2022		SeqNo: 3052231		Units: µg/L					
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	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID: 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: SL86502		RunNo: 86502							
Prep Date:	Analysis Date: 3/16/2022		SeqNo: 3052920		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.5	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: SL86502		RunNo: 86502							
Prep Date:	Analysis Date: 3/16/2022		SeqNo: 3052921		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

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

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

WO#: 2203757

18-Mar-22

Client: Harvest

Project: Dogie

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: SL86502		RunNo: 86502							
Prep Date:	Analysis Date: 3/16/2022		SeqNo: 3052921		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	9.4		10.00		94.5	70	130			

Sample ID: 2203757-008ams	SampType: MS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-16	Batch ID: R86502		RunNo: 86502							
Prep Date:	Analysis Date: 3/16/2022		SeqNo: 3054046		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.3	70	130			
Surr: Toluene-d8	9.6		10.00		95.9	70	130			

Sample ID: 2203757-008amsd	SampType: MSD		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-16	Batch ID: R86502		RunNo: 86502							
Prep Date:	Analysis Date: 3/16/2022		SeqNo: 3054047		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		98.2	70	130	0	0	
Surr: Dibromofluoromethane	9.7		10.00		96.7	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		95.3	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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E 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: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Harvest

Work Order Number: 2203757

RcptNo: 1

Received By: Tracy Casarrubias 3/15/2022 7:30:00 AM

Completed By: Tracy Casarrubias 3/15/2022 9:28:26 AM

Reviewed By: *San > 15/22*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°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 3/15/22*

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	3.3	Good	Yes			



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

September 19, 2022

Eric Carroll

Harvest

1755 Arroyo Dr.

Bloomfield, NM 87413

TEL: (505) 632-4475

FAX:

RE: Dogie

OrderNo.: 2209357

Dear Eric Carroll:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/8/2022 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 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 2209357

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW13

Project: Dogie

Collection Date: 9/6/2022 12:30:00 PM

Lab ID: 2209357-002

Matrix: AQUEOUS

Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	430	10	P	µg/L	10	9/13/2022 3:07:00 AM	S90951
Toluene	ND	1.0		µg/L	1	9/13/2022 3:30:00 AM	S90951
Ethylbenzene	3.4	1.0		µg/L	1	9/13/2022 3:30:00 AM	S90951
Xylenes, Total	3.0	1.5		µg/L	1	9/13/2022 3:30:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%Rec	1	9/13/2022 3:30:00 AM	S90951
Surr: Dibromofluoromethane	94.7	70-130		%Rec	1	9/13/2022 3:30:00 AM	S90951
Surr: Toluene-d8	93.2	70-130		%Rec	1	9/13/2022 3:30:00 AM	S90951

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	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 range due to dilution or matrix interference		

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Analytical Report

Lab Order 2209357

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW11

Project: Dogie

Collection Date: 9/6/2022 1:00:00 PM

Lab ID: 2209357-004

Matrix: AQUEOUS

Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	2.0		µg/L	2	9/13/2022 4:16:00 AM	S90951
Toluene	ND	2.0		µg/L	2	9/13/2022 4:16:00 AM	S90951
Ethylbenzene	ND	2.0		µg/L	2	9/13/2022 4:16:00 AM	S90951
Xylenes, Total	ND	3.0		µg/L	2	9/13/2022 4:16:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	2	9/13/2022 4:16:00 AM	S90951
Surr: Dibromofluoromethane	99.2	70-130		%Rec	2	9/13/2022 4:16:00 AM	S90951
Surr: Toluene-d8	90.8	70-130		%Rec	2	9/13/2022 4:16:00 AM	S90951

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	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 range due to dilution or matrix interference		

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Analytical Report

Lab Order 2209357

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW16

Project: Dogie

Collection Date: 9/6/2022 1:35:00 PM

Lab ID: 2209357-005

Matrix: AQUEOUS

Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0		µg/L	1	9/13/2022 5:02:00 AM	S90951
Toluene	ND	1.0		µg/L	1	9/13/2022 5:02:00 AM	S90951
Ethylbenzene	ND	1.0		µg/L	1	9/13/2022 5:02:00 AM	S90951
Xylenes, Total	ND	1.5		µg/L	1	9/13/2022 5:02:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	9/13/2022 5:02:00 AM	S90951
Surr: Dibromofluoromethane	98.6	70-130		%Rec	1	9/13/2022 5:02:00 AM	S90951
Surr: Toluene-d8	91.0	70-130		%Rec	1	9/13/2022 5:02:00 AM	S90951

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	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 range due to dilution or matrix interference		

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2209357

Date Reported: 9/19/2022

CLIENT: Harvest Client Sample ID: MW15
Project: Dogie Collection Date: 9/6/2022 1:50:00 PM
Lab ID: 2209357-006 Matrix: AQUEOUS Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	21	1.0		µg/L	1	9/13/2022 5:25:00 AM	S90951
Toluene	ND	1.0		µg/L	1	9/13/2022 5:25:00 AM	S90951
Ethylbenzene	1.5	1.0		µg/L	1	9/13/2022 5:25:00 AM	S90951
Xylenes, Total	ND	1.5		µg/L	1	9/13/2022 5:25:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	9/13/2022 5:25:00 AM	S90951
Surr: Dibromofluoromethane	97.1	70-130		%Rec	1	9/13/2022 5:25:00 AM	S90951
Surr: Toluene-d8	92.9	70-130		%Rec	1	9/13/2022 5:25:00 AM	S90951

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order **2209357**

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW18

Project: Dogie

Collection Date: 9/6/2022 2:10:00 PM

Lab ID: 2209357-007

Matrix: AQUEOUS

Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: CCM	
Benzene	ND	2.0	P	µg/L	2	9/13/2022 5:48:00 AM	S90951
Toluene	ND	2.0	P	µg/L	2	9/13/2022 5:48:00 AM	S90951
Ethylbenzene	ND	2.0	P	µg/L	2	9/13/2022 5:48:00 AM	S90951
Xylenes, Total	ND	3.0	P	µg/L	2	9/13/2022 5:48:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	102	70-130	P	%Rec	2	9/13/2022 5:48:00 AM	S90951
Surr: Dibromofluoromethane	99.1	70-130	P	%Rec	2	9/13/2022 5:48:00 AM	S90951
Surr: Toluene-d8	88.0	70-130	P	%Rec	2	9/13/2022 5:48:00 AM	S90951

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	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 range due to dilution or matrix interference		

Analytical Report

Lab Order 2209357

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest

Client Sample ID: MW19

Project: Dogie

Collection Date: 9/6/2022 2:20:00 PM

Lab ID: 2209357-008

Matrix: AQUEOUS

Received Date: 9/8/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0	P	µg/L	1	9/13/2022 6:11:00 AM	S90951
Toluene	ND	1.0	P	µg/L	1	9/13/2022 6:11:00 AM	S90951
Ethylbenzene	ND	1.0	P	µg/L	1	9/13/2022 6:11:00 AM	S90951
Xylenes, Total	ND	1.5	P	µg/L	1	9/13/2022 6:11:00 AM	S90951
Surr: 1,2-Dichloroethane-d4	98.4	70-130	P	%Rec	1	9/13/2022 6:11:00 AM	S90951
Surr: Dibromofluoromethane	99.0	70-130	P	%Rec	1	9/13/2022 6:11:00 AM	S90951
Surr: Toluene-d8	89.8	70-130	P	%Rec	1	9/13/2022 6:11:00 AM	S90951

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	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 range due to dilution or matrix interference		

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

WO#: 2209357

19-Sep-22

Client: Harvest**Project:** Dogie

Sample ID: 100ng lcs 2	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: S90951		RunNo: 90951							
Prep Date:	Analysis Date: 9/13/2022		SeqNo: 3253472		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	97.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	9.2		10.00		92.3	70	130			

Sample ID: mb 2	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: S90951		RunNo: 90951							
Prep Date:	Analysis Date: 9/13/2022		SeqNo: 3253473		Units: µg/L					
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	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.6	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.1		10.00		91.3	70	130			

Sample ID: 2209357-001ams	SampType: MS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW14	Batch ID: S90951		RunNo: 90951							
Prep Date:	Analysis Date: 9/13/2022		SeqNo: 3253544		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	19	1.0	20.00	0	97.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.1	70	130			
Surr: Toluene-d8	9.0		10.00		90.2	70	130			

Sample ID: 2209357-001amsd	SampType: MSD		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW14	Batch ID: S90951		RunNo: 90951							
Prep Date:	Analysis Date: 9/13/2022		SeqNo: 3253547		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.8	70	130	3.03	20	
Toluene	19	1.0	20.00	0	93.4	70	130	4.01	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2209357

19-Sep-22

Client: Harvest
Project: Dogie

Sample ID: 2209357-001amsd		SampType: MSD		TestCode: EPA Method 8260: Volatiles Short List						
Client ID: MW14		Batch ID: S90951		RunNo: 90951						
Prep Date:		Analysis Date: 9/13/2022		SeqNo: 3253547		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.5	70	130	0	0	
Surr: Toluene-d8	9.1		10.00		90.5	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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank

E 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: 2209357

RcptNo: 1

Received By: Tracy Casarrubias 9/8/2022 7:35:00 AM

Completed By: Tracy Casarrubias 9/8/2022 9:07:23 AM

Reviewed By:

KRA 9-08-22
KRA 9-08-22
JN 9/8/22

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°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: KRA 9-08-22

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	2.2	Good	Yes			

Chain-of-Custody Record

Client: Harvest Four corners
Monica Smith
 Mailing Address:
 Phone #:

email or Fax#: msmith@hallenvironmental.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Dogie

Project #:

Project Manager:

Eric Carroll - Ensolum

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No

of Coolers:

Cooler Temp (including CF): 2.1 + 0.1 = 2.2 (°C)

Container Type and #

Preservative Type

HEAL No.

3 VOA HCl 2209357

1216 GW MW14

1230 MW13

1245 MW16

1300 MW11

1335 MW16

1350 MW15

1416 MW13

1420 MW19

Date: 9-7-1550

Relinquished by: Eric Carroll

Received by: Eric Carroll

Date: 9/12/1550

Time: 1550

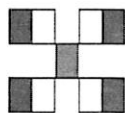
Date: 9/12/1814

Relinquished by: Monica Smith

Received by: Eric Carroll

Date: 9/12/1814

Time: 7:35



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

TPH:8015D(GRO / DRO / MRO)
 8081 Pesticides/8082 PCB's
 EDB (Method 504.1)
 PAHs by 8310 or 8270SIMS
 RCRA 8 Metals
 Cl, F, Br, NO₃, PO₄, SO₄
 8260 (VOA)
 8270 (Semi-VOA)
 Total Coliform (Present/Absent)

Remarks:

cc: ecarroll@ensolum.com

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 199912

CONDITIONS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 199912
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2022 Annual Groundwater Report: Content Satisfactory 1. Continue with plans to collect groundwater samples semi-annually, and gauge depth to product quarterly in all wells. 2. Observe PSH quarterly and determine if skimmer pump may be utilized to extract PSH from well. 3. Propose a remediation method to OCD for dissolved phase impact once options are determined. 4. Submit the 2023 annual report (if it hasn't already been submitted) and the 2024 annual report by April 1, 2025.	5/10/2024