



September 28, 2021

Oakley Hayes
Environmental Specialist
Harvest Four Corners
1755 Arroyo Drive
Bloomfield, NM 87413

Subject: **2020 Annual Groundwater Report**
Dogie East Pit
3RP-312-0
Incident # nAUTOfAB000124
Rio Arriba County, New Mexico

Dear Mr. Hayes

On behalf of Harvest Four Corners, LLC (Harvest), WSP USA Inc. (WSP) presents this annual report for activities conducted at the Dogie East Pit (Site), Remediation Permit Number 3RP-312-0, between January and December 2020. The scope of work for this project was continued remediation and monitoring of petroleum hydrocarbon impacts to groundwater resulting from operations of a former lined pit used to collect drip gas and water from a condensate tank.

INTRODUCTION

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 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 was 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) 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 the NMWQCC standards. The excavation was subsequently backfilled and, in May 1998, monitoring wells MW-1, MW-2, MW-3, and MW-4 were installed (Figure 2). In December 1998, monitoring well MW-5 and a 4-inch soil vapor extraction (SVE) well were installed and a pilot test was conducted; however, SVE was never implemented 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 environmental liability for the dehydrator 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

APPROVED

By Nelson Velez at 10:42 am, Jan 03, 2022

Review of the 2020 Annual Groundwater Report: Content satisfactory

1. Continue with future work stated within 2020 Annual Groundwater Report
2. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022



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 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 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 PSH recovery system in monitoring well MW-6.

METHODOLOGY

SCOPE OF WORK

Groundwater monitoring activities consisted of:

- Monitoring for PSH in all monitoring wells on a quarterly basis;
- Removing PSH from monitoring wells through active and passive recovery techniques;
- Conducting bi-weekly to monthly site visits for operation and maintenance of the pneumatic pumping 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, and MW-7.

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 de-ionized water prior to each measurement

GROUNDWATER CONTOUR MAPS

WSP used existing top-of-casing well elevations and measured groundwater elevations to draft groundwater contours and determine groundwater flow direction in March 2020 (Figure 2), June 2020 (Figure 3), September 2020 (Figure 4), and December 2020 (Figure 5). Contours were inferred based on groundwater elevations obtained and observations of physical characteristics at the Site (topography, proximity to irrigation ditches, etc.). Depth to groundwater ranged from 7.71 feet below top of casing (BTOC) in MW-20 in March 2020 to 19.39 feet BTOC in MW-6 in September 2020. Groundwater elevation data is summarized in Table 1.

GROUNDWATER SAMPLING

In March 2020 and September 2020, the monitoring wells were purged using new disposable 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, \pm 10 percent for EC, and \pm 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 air inside 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 using EPA Method 8021B. Groundwater analytical results are presented in Table 2.

PSH RECOVERY

In March 2018, WSP installed a solar powered pneumatic pumping 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 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. Bi-weekly to monthly site visits were conducted in 2020 to monitor system performance, PSH recovery, and conduct system maintenance. During each inspection PSH thickness and PSH recovery were recorded. The PSH recovery system was rotated to another site in November 2019 and re-installed at this location in March 2020. 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. PSH recovery volumes, operational data, and system maintenance data are summarized on Table 3 and 4. Throughout 2020, an estimated 1.37 gallons and 2.87 gallons of product were recovered from MW-6 and MW-7, respectively. Since installation of the product recovery system in March 2018, an estimated total of 16.31 gallons and 3.01 gallons of product have been recovered between monitoring wells MW-6 and MW07, respectively, for a total of 19.32 gallons.

RESULTS

Depth to groundwater and depth to PSH were measured during the 2020 quarterly monitoring events. Depth to water and PSH are summarized in Table 1. Product thickness was observed in monitoring wells MW-6 and MW-7 in March 2020, June 2020, September 2020, and December 2020. Product thickness in MW-6 ranged from 0.61 feet in March to 1.79 feet in September. Product thickness in MW-7 ranged from 0.33 feet in March to 1.15 feet in September. Product thickness was also observed in monitoring wells MW-3 and MW-5 in September 2020, with thickness of 0.08 feet and 0.18 feet, respectively. Product thickness of 0.15 feet was observed in MW-5 in December 2020.

Groundwater flow direction was determined to be north-northeast on the eastern portion of the Site and west-northwest at the central and western portion of the Site. (Figures 3, 4, 5, and 6) which is consistent with previous monitoring events.

In March 2020, laboratory analytical results indicated that benzene concentrations in monitoring wells MW-12 and MW-19 exceeded NMWQCC groundwater standards of 5 micrograms ($\mu\text{g}/\text{L}$) with concentrations of 320 $\mu\text{g}/\text{L}$ and 13 $\mu\text{g}/\text{L}$ respectively. During the September 2020 monitoring event, analytical results indicate that benzene concentrations exceeded NMWQCC groundwater standard in monitoring wells MW-12 and MW-19 with concentrations of 170 $\mu\text{g}/\text{L}$ and 17 $\mu\text{g}/\text{L}$ respectively. Monitoring well MW-15 exhibited benzene concentrations of 2.1 $\mu\text{g}/\text{L}$ and 1.8 $\mu\text{g}/\text{L}$ in the March and September sampling events, respectively, but was in compliance with the applicable NMWQCC groundwater standard. Monitoring wells MW-12 and MW-19 exhibited toluene, ethylbenzene, and total xylene concentrations in the March and September sampling events that were in compliance with the applicable NMWQCC groundwater standards. Analytical results are listed in Table 2 and presented on Figures 3 and 5.

CONCLUSION

PSH was detected in monitoring well MW-7 and continued to accumulate in monitoring well MW-6 which is cross- and downgradient of the original source area. After disassembly of the pneumatic pumping system and removal from MW-6 in November 2019, product recovery socks were installed in both monitoring wells for passive recovery of PSH. The solar pneumatic pumping system was re-installed in MW-6 in March 2020, and an additional recovery pump was added to MW-7 in August 2020. Approximately 1.37 gallons of PSH were recovered from monitoring well MW-6 and 2.87 gallons from monitoring well MW-7 through various product recovery techniques in 2020.



Measured PSH thickness in monitoring well MW-6 ranged from 0.61feet to 1.79 feet and 0.33 feet to 1.15 feet in monitoring well MW-7. PSH was also observed in monitoring well MW-3 in September with a thickness of 0.08 feet and in MW-5 in September and December with a thickness of 0.18 feet and 0.15 feet, respectively.

Groundwater samples from MW-12 and MW-19 exhibited benzene concentrations exceeding the NMWQCC standard for groundwater. Groundwater samples MW-10, MW-11, MW-13, MW-14, MW-15, MW-16, MW-17 and MW-20 did not exceed NMWQCC standards. Monitoring well MW-18 was dry and was not sampled in either the March or September monitoring event.

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 no PSH is present. Harvest will continue operating the PSH recovery system on monitoring wells MW-6 and MW-7 without rotating the system to other locations. Harvest will additionally use passive PSH recovery methods on any other wells where observable PSH levels is encountered. Passive PSH recovery will consist of monthly PSH bailing and product absorbent sock replacement during monthly operation and maintenance visits for the solar powered pneumatic PSH recovery system. Once the PSH plume has been remediated, Harvest will assess options to address dissolve phase groundwater impacts.

Kind regards,

Danny Burns
Consultant, Geologist

Ashley Ager, PG
Vice President, Geologist

Enclosed:

- Figure 1: Site Location Map
- Figure 2: Site Map
- Figure 3: Groundwater Elevations and Analytical Results (March 2020)
- Figure 4: Groundwater Elevations (June 2020)
- Figure 5: Groundwater Elevations and Analytical Results (September 2020)
- Figure 6: Groundwater Elevations (December 2020)

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

- Enclosure A: 2020 Sample Collection Forms
- Enclosure B: Laboratory Analytical Reports

FIGURES

**LEGEND**

SITE LOCATION

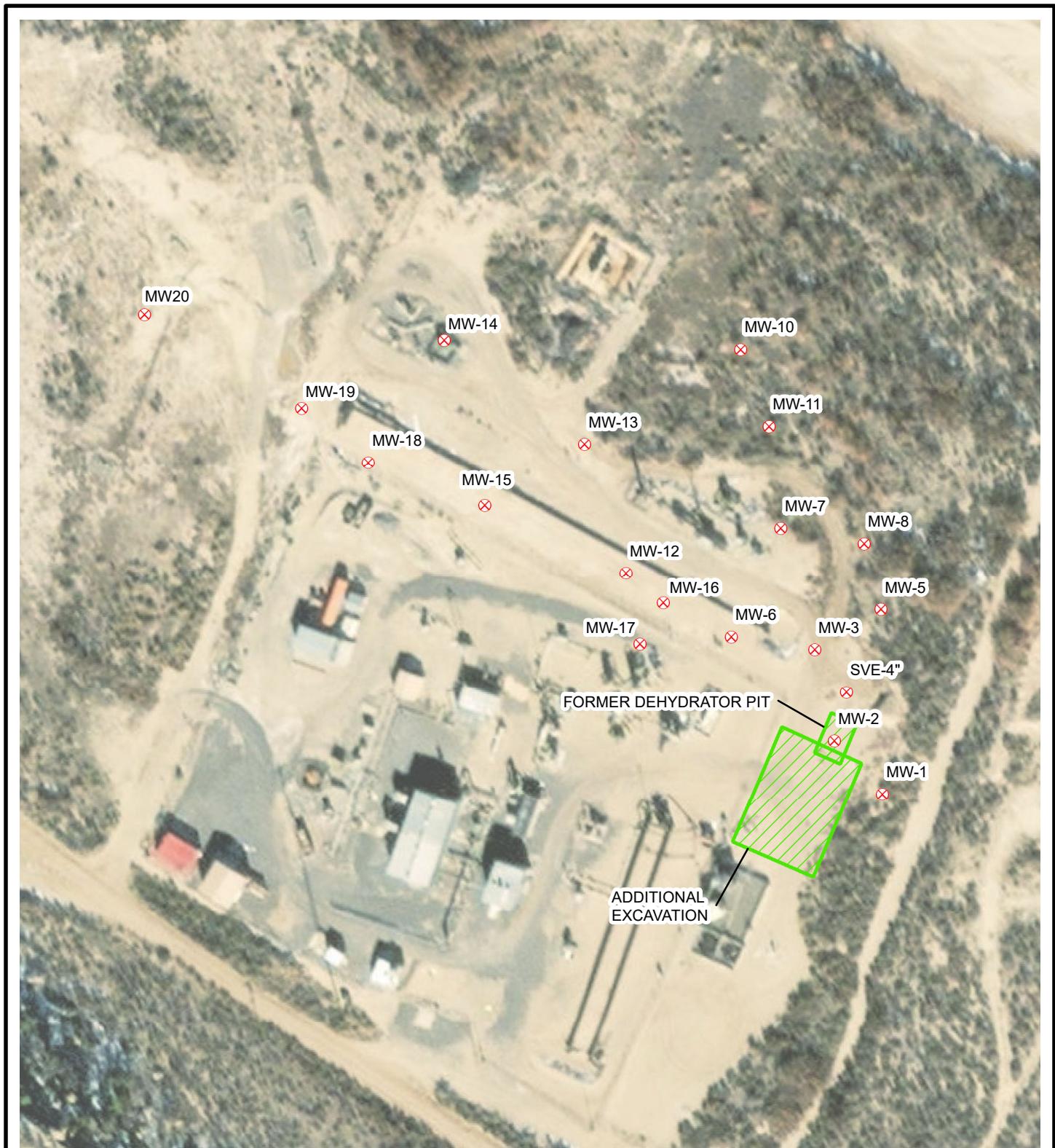
0 2,000 4,000
Feet



FIGURE 1
SITE LOCATION MAP
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

HARVEST FOUR CORNERS, LLC

WSP

**LEGEND**

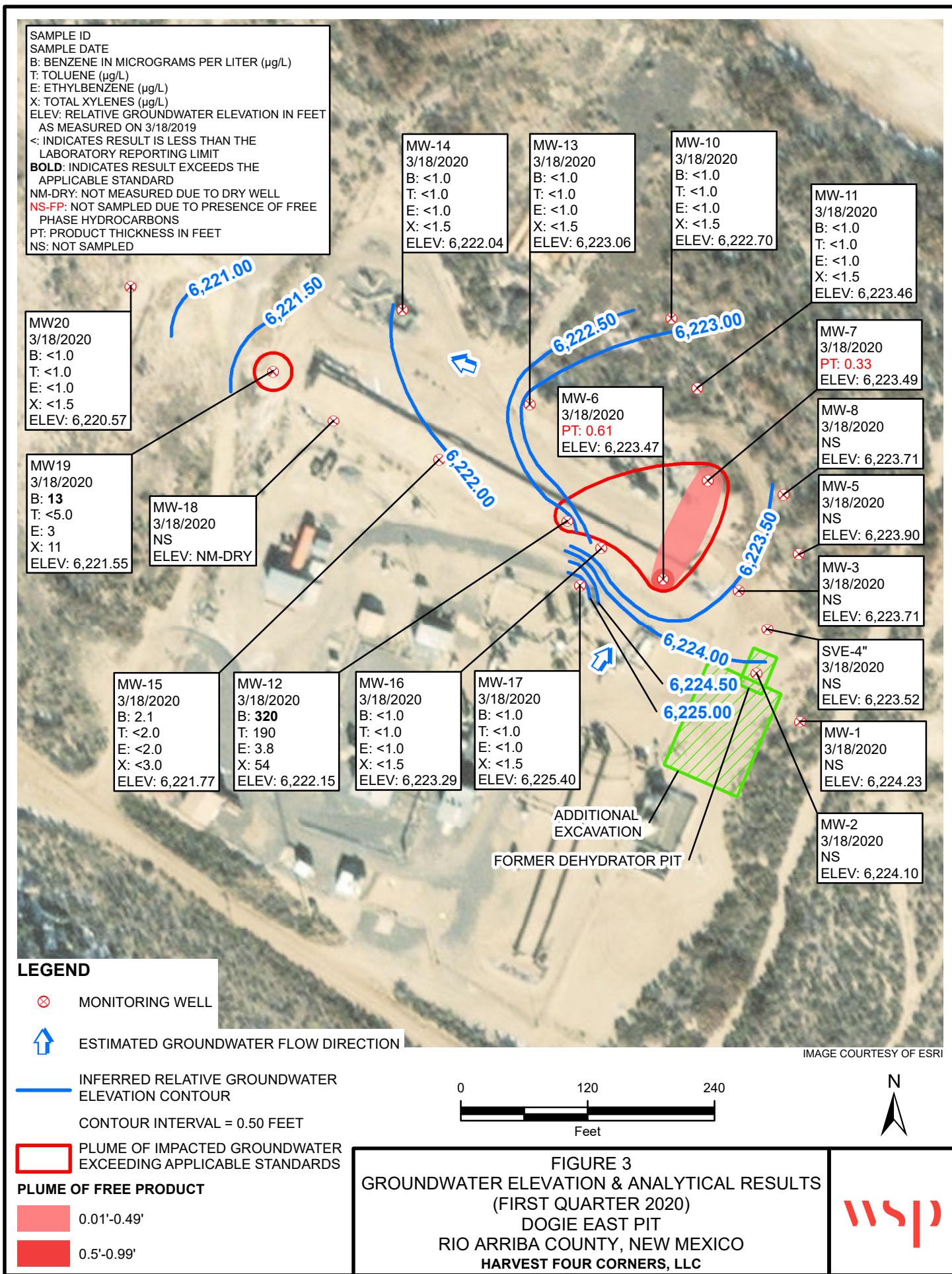
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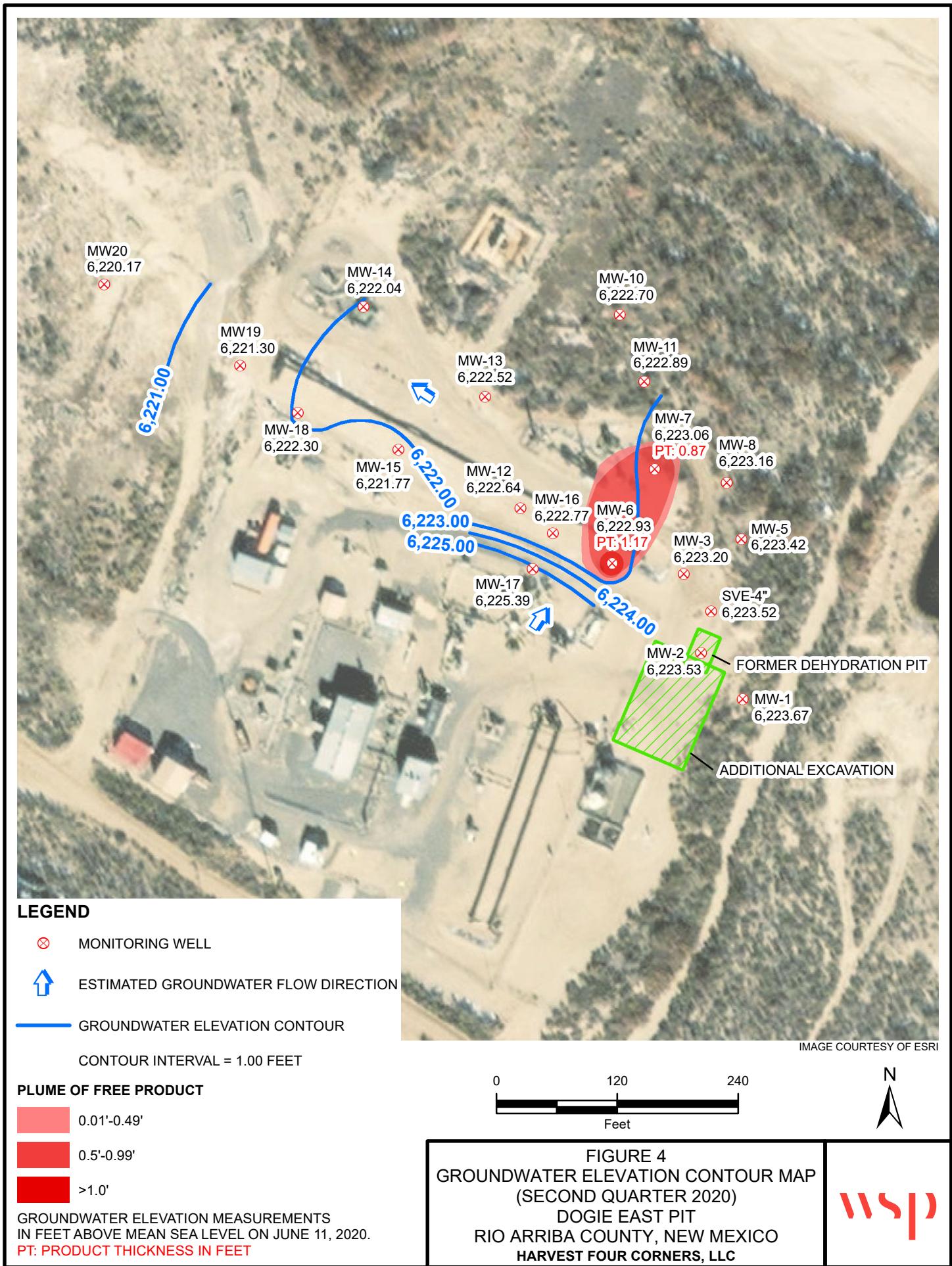
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Feet

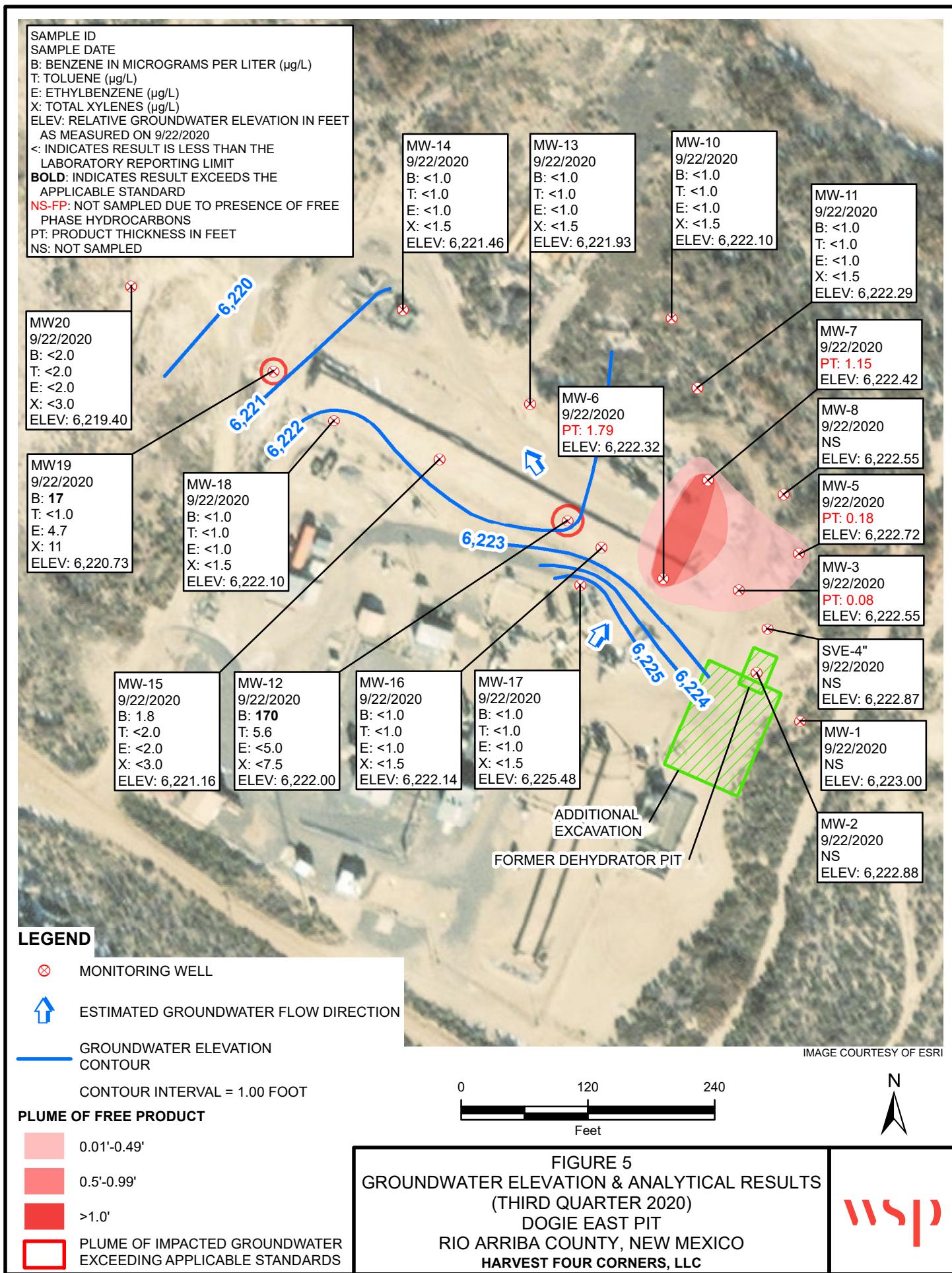


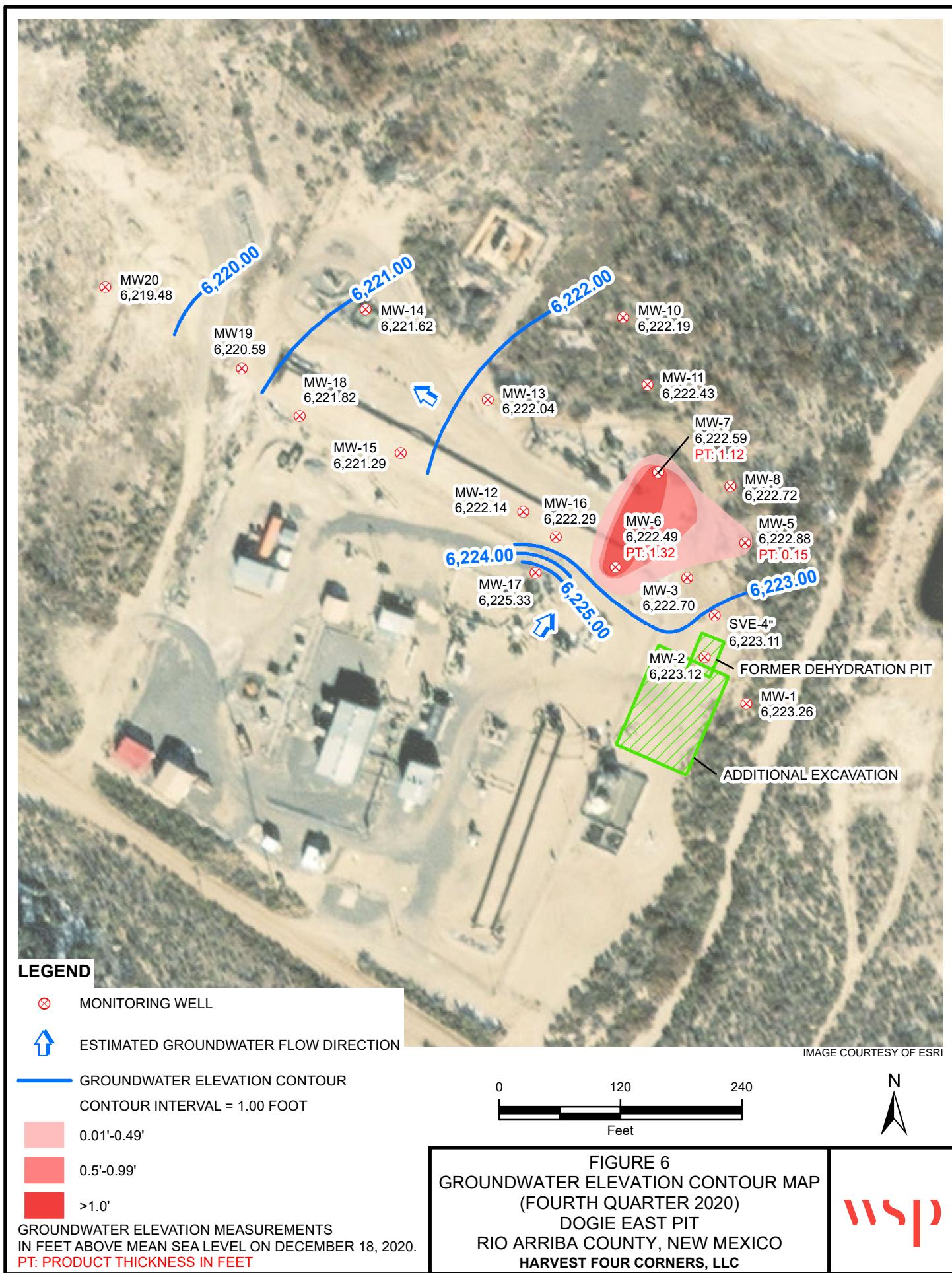
FIGURE 2
SITE MAP
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

HARVEST FOUR CORNERS, LLC









TABLES

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	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
MW-1*	6/25/2013	6,239.41	15.64	NP	NP	6,223.77
MW-1	9/24/2013	6,239.41	14.88	NP	NP	6,224.53
MW-1	12/5/2013	6,239.41	14.63	NP	NP	6,224.78
MW-1	3/20/2014	6,239.41	14.26	NP	NP	6,225.15
MW-1	6/16/2014	6,239.41	15.01	NP	NP	6,224.40
MW-1	9/10/2014	6,239.41	15.11	NP	NP	6,224.30
MW-1	12/3/2014	6,239.41	14.80	NP	NP	6,224.61
MW-1	3/5/2015	6,239.41	14.09	NP	NP	6,225.32
MW-1	6/18/2015	6,239.41	14.52	NP	NP	6,224.89
MW-1	9/23/2015	6,239.41	14.92	NP	NP	6,224.49
MW-1	12/18/2015	6,239.41	14.46	NP	NP	6,224.95
MW-1	9/12/2016	6,239.41	15.42	NP	NP	6,223.99
MW-1	3/28/2017	6,239.41	14.23	NP	NP	6,225.18
MW-1**	10/30/2017	6,239.14	14.69	NP	NP	6,224.45
MW-1	3/28/2018	6,239.14	14.45	NP	NP	6,224.69
MW-1	9/14/2018	6,239.14	16.18	NP	NP	6,222.96
MW-1	3/28/2019	6,239.14	15.54	NP	NP	6,223.60
MW-1	5/16/2019	6,239.14	14.65	NP	NP	6,224.49
MW-1	8/13/2019	6,239.14	15.69	NP	NP	6,223.45
MW-1***	9/23/2019	6,239.58	16.04	NP	NP	6,223.54
MW-1	3/18/2020	6,239.58	15.35	NP	NP	6,224.23
MW-1	6/11/2020	6,239.58	15.91	NP	NP	6,223.67
MW-1	9/22/2020	6,239.58	16.58	NP	NP	6,223.00
MW-1	12/18/2020	6,239.58	16.32	NP	NP	6,223.26
MW-2	3/6/2013	6,253.92	15.50	NP	NP	6,238.42
MW-2*	6/25/2013	6,239.57	15.93	NP	NP	6,223.64
MW-2	9/24/2013	6,239.57	15.54	NP	NP	6,224.03
MW-2	12/5/2013	6,239.57	14.90	NP	NP	6,224.67
MW-2	3/20/2014	6,239.57	14.58	NP	NP	6,224.99
MW-2	6/16/2014	6,239.57	15.33	NP	NP	6,224.24
MW-2	9/10/2014	6,239.57	15.45	NP	NP	6,224.12
MW-2	12/3/2014	6,239.57	15.09	NP	NP	6,224.48
MW-2	3/5/2015	6,239.57	14.25	NP	NP	6,225.32
MW-2	6/18/2015	6,239.57	14.81	NP	NP	6,224.76
MW-2	9/23/2015	6,239.57	15.17	NP	NP	6,224.40
MW-2	12/18/2015	6,239.57	14.69	NP	NP	6,224.88

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-2	9/12/2016	6,239.57	15.40	NP	NP	6,224.17
MW-2	3/28/2017	6,239.57	14.58	NP	NP	6,224.99
MW-2**	10/30/2017	6,239.28	15.20	NP	NP	6,224.08
MW-2	3/28/2018	6,239.28	14.71	NP	NP	6,224.57
MW-2	9/14/2018	6,239.28	16.10	NP	NP	6,223.18
MW-2	3/28/2019	6,239.28	14.81	NP	NP	6,224.47
MW-2	5/16/2019	6,239.28	14.93	NP	NP	6,224.35
MW-2	8/13/2019	6,239.28	15.92	NP	NP	6,223.36
MW-2***	9/23/2019	6,239.74	16.33	NP	NP	6,223.41
MW-2	3/18/2020	6,239.74	15.64	NP	NP	6,224.10
MW-2	6/11/2020	6,239.74	16.21	NP	NP	6,223.53
MW-2	9/22/2020	6,239.74	16.86	NP	NP	6,222.88
MW-2	12/18/2020	6,239.74	16.62	NP	NP	6,223.12
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MW-3	3/6/2013	6,253.35	15.40	NP	NP	6,237.95
MW-3*	6/25/2013	6,238.61	15.25	NP	NP	6,223.36
MW-3	9/24/2013	6,238.61	15.05	NP	NP	6,223.56
MW-3	12/5/2013	6,238.61	14.29	NP	NP	6,224.32
MW-3	3/20/2014	6,238.61	13.96	NP	NP	6,224.65
MW-3	6/16/2014	6,238.61	14.67	NP	NP	6,223.94
MW-3	9/10/2014	6,238.61	14.79	NP	NP	6,223.82
MW-3	12/3/2014	6,238.61	14.50	NP	NP	6,224.11
MW-3	3/5/2015	6,238.61	13.67	NP	NP	6,224.94
MW-3	6/18/2015	6,238.61	14.14	NP	NP	6,224.47
MW-3	9/23/2015	6,238.61	15.59	NP	NP	6,223.02
MW-3	12/18/2015	6,238.61	14.12	NP	NP	6,224.49
MW-3	9/12/2016	6,238.61	15.50	NP	NP	6,223.11
MW-3	3/28/2017	6,238.61	14.22	NP	NP	6,224.39
MW-3**	10/30/2017	6,238.28	14.60	NP	NP	6,223.68
MW-3	3/28/2018	6,238.28	14.08	NP	NP	6,224.20
MW-3	9/14/2018	6,238.28	15.44	NP	NP	6,222.84
MW-3	3/28/2019	6,238.28	14.31	NP	NP	6,223.97
MW-3	5/16/2019	6,238.28	14.27	NP	NP	6,224.01
MW-3	8/13/2019	6,238.28	15.32	NP	NP	6,222.96
MW-3***	9/23/2019	6,238.79	15.74	NP	NP	6,223.05
MW-3	3/18/2020	6,238.79	15.08	NP	NP	6,223.71
MW-3	6/11/2020	6,238.79	15.59	NP	NP	6,223.20
MW-3	9/22/2020	6,238.79	16.30	16.22	0.08	6,222.55

TABLE 1

**GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO**

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-3	12/18/2020	6,238.79	16.09	NP	NP	6,222.70
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
MW-5*	6/25/2013	6,238.48	14.96	NP	NP	6,223.52
MW-5	9/24/2013	6,238.48	14.35	NP	NP	6,224.13
MW-5	12/5/2013	6,238.48	13.94	NP	NP	6,224.54
MW-5	3/20/2014	6,238.48	13.63	NP	NP	6,224.85
MW-5	6/16/2014	6,238.48	14.39	NP	NP	6,224.09
MW-5	9/10/2014	6,238.48	14.61	NP	NP	6,223.87
MW-5	12/3/2014	6,238.48	14.15	14.15†	<0.01	6,224.33
MW-5	3/5/2015	6,238.48	13.32	13.32†	<0.01	6,225.16
MW-5	6/18/2015	6,238.48	13.88	NP	NP	6,224.60
MW-5	9/23/2015	6,238.48	14.30	NP	NP	6,224.18
MW-5	12/18/2015	6,238.48	13.74	NP	NP	6,224.74
MW-5	9/12/2016	6,238.48	14.83	NP	NP	6,223.65
MW-5	3/28/2017	6,238.48	13.57	NP	NP	6,224.91
MW-5**	10/30/2017	6,238.19	14.08	NP	NP	6,224.11
MW-5	3/28/2018	6,238.19	13.82	NP	NP	6,224.37
MW-5	9/14/2018	6,238.19	15.20	NP	NP	6,222.99
MW-5	3/28/2019	6,238.19	13.91	NP	NP	6,224.28
MW-5	5/16/2019	6,238.19	13.94	NP	NP	6,224.25
MW-5	8/13/2019	6,238.19	15.54	NP	NP	6,222.65
MW-5***	9/23/2019	6,238.65	15.68	NP	NP	6,222.97
MW-5	3/18/2020	6,238.65	14.75	NP	NP	6,223.90
MW-5	6/11/2020	6,238.65	15.23	NP	NP	6,223.42
MW-5	9/22/2020	6,238.65	16.07	15.89	0.18	6,222.72
MW-5	12/18/2020	6,238.65	15.89	15.74	0.15	6,222.88
MW-6	3/6/2013	6,254.09	16.68	15.95	0.73	6,237.99
MW-6*	6/25/2013	6,240.01	17.51	16.67	0.84	6,223.17
MW-6	9/24/2013	6,240.01	16.88	16.03	0.85	6,223.81
MW-6	12/5/2013	6,240.01	16.18	15.80	0.38	6,224.13
MW-6	3/20/2014	6,240.01	15.59	15.56	0.03	6,224.44
MW-6	6/16/2014	6,240.01	16.30	16.28	0.02	6,223.73
MW-6	9/10/2014	6,240.01	16.39	NP	NP	6,223.62
MW-6	12/3/2014	6,240.01	16.08	16.07	0.01	6,223.93

TABLE 1

**GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO**

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-6	3/5/2015	6,240.01	15.21	15.21†	<0.01	6,224.80
MW-6	6/18/2015	6,240.01	15.79	15.79†	<0.01	6,224.22
MW-6	9/23/2015	6,240.01	16.19	NP	NP	6,223.82
MW-6	12/18/2015	6,240.01	15.68	NP	NP	6,224.33
MW-6	9/12/2016	6,240.01	16.81	16.70	0.11	6,223.20
MW-6	3/28/2017	6,240.01	15.49	NP	NP	6,224.52
MW-6**	10/30/2017	6,239.72	16.54	15.95	0.59	6,223.18
MW-6	3/28/2017	6,239.72	PRS	PRS	PRS	PRS
MW-6	9/14/2018	6,239.72	17.10	17.06	0.04	6,222.65
MW-6	3/28/2019	6,239.72	15.90	NP	NP	6,223.82
MW-6	5/16/2019	6,239.72	15.98	NP	NP	6,223.74
MW-6	8/13/2019	6,239.72	21.90	NP	NP	6,217.82
MW-6***	9/23/2019	6,240.19	17.53	17.37	0.16	6,222.79
MW-6	3/18/2020	6,240.19	17.21	16.6	0.61	6,223.47
MW-6	6/11/2020	6,240.19	18.20	17.03	1.17	6,222.93
MW-6	9/22/2020	6,240.19	19.30	17.51	1.79	6,222.32
MW-6	12/18/2020	6,240.19	18.76	17.44	1.32	6,222.49
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MW-7	3/6/2013	6,250.65	12.61	NP	NP	6,238.04
MW-7*	6/25/2013	6,236.53	13.40	NP	NP	6,223.13
MW-7	9/24/2013	6,236.53	12.71	12.67	0.04	6,223.85
MW-7	12/5/2013	6,236.53	12.34	NP	NP	6,224.19
MW-7	3/20/2014	6,236.53	12.05	NP	NP	6,224.48
MW-7	6/16/2014	6,236.53	12.84	NP	NP	6,223.69
MW-7	9/10/2014	6,236.53	12.89	NP	NP	6,223.64
MW-7	12/3/2014	6,236.53	12.58	NP	NP	6,223.95
MW-7	2/25/2015	6,236.53	12.27	NP	NP	6,224.26
MW-7	3/5/2015	6,236.53	11.68	NP	NP	6,224.85
MW-7	6/18/2015	6,236.53	12.34	NP	NP	6,224.19
MW-7	9/23/2015	6,236.53	12.68	NP	NP	6,223.85
MW-7	12/18/2015	6,236.53	12.17	NP	NP	6,224.36
MW-7	9/12/2016	6,236.53	13.25	NP	NP	6,223.28
MW-7	3/28/2017	6,236.53	12.05	NP	NP	6,224.48
MW-7**	10/30/2017	6,236.27	12.55	NP	NP	6,223.72
MW-7	3/28/2018	6,236.27	12.24	NP	NP	6,224.03
MW-7	9/14/2018	6,236.27	13.60	NP	NP	6,222.67
MW-7	3/28/2019	6,236.27	12.30	12.25	0.05	6,224.01
MW-7	5/16/2019	6,236.27	12.37	NP	NP	6,223.90

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-7	8/13/2019	6,236.27	13.89	NP	NP	6,222.38
MW-7***	9/23/2019	6,236.71	14.42	13.56	0.86	6,222.98
MW-7	3/18/2020	6,236.71	13.48	13.15	0.33	6,223.49
MW-7	6/11/2020	6,236.71	14.35	13.48	0.87	6,223.06
MW-7	9/22/2020	6,236.71	15.21	14.06	1.15	6,222.42
MW-7	12/18/2020	6,236.71	15.02	13.9	1.12	6,222.59
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MW-8	3/6/2013	6,249.10	11.88	NP	NP	6,237.22
MW-8*	6/25/2013	6,235.85	12.55	NP	NP	6,223.30
MW-8	9/24/2013	6,235.85	11.84	NP	NP	6,224.01
MW-8	12/5/2013	6,235.85	11.52	NP	NP	6,224.33
MW-8	3/18/2014	6,235.85	11.20	NP	NP	6,224.65
MW-8	6/16/2014	6,235.85	12.04	NP	NP	6,223.81
MW-8	9/10/2014	6,235.85	12.11	NP	NP	6,223.74
MW-8	12/3/2014	6,235.85	11.73	NP	NP	6,224.12
MW-8	3/5/2015	6,235.85	10.87	NP	NP	6,224.98
MW-8	6/18/2015	6,235.85	11.54	NP	NP	6,224.31
MW-8	9/23/2015	6,235.85	11.85	NP	NP	6,224.00
MW-8	12/18/2015	6,235.85	11.33	NP	NP	6,224.52
MW-8	9/12/2016	6,235.85	12.56	NP	NP	6,223.29
MW-8	3/28/2017	6,235.85	11.20	NP	NP	6,224.65
MW-8**	10/30/2017	6,235.58	11.74	NP	NP	6,223.84
MW-8	3/28/2018	6,235.58	11.44	NP	NP	6,224.14
MW-8	9/14/2018	6,235.58	12.72	NP	NP	6,222.86
MW-8	3/28/2019	6,235.58	Dry	NP	NP	Dry
MW-8	5/16/2019	6,235.58	11.60	NP	NP	6,223.98
MW-8	8/13/2019	6,235.58	12.53	NP	NP	6,223.05
MW-8***	9/23/2019	6,236.01	12.98	NP	NP	6,223.03
MW-8	3/18/2020	6,236.01	12.30	NP	NP	6,223.71
MW-8	6/11/2020	6,236.01	12.85	NP	NP	6,223.16
MW-8	9/22/2020	6,236.01	13.46	NP	NP	6,222.55
MW-8	12/18/2020	6,236.01	13.29	NP	NP	6,222.72
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MW-9	3/6/2013	6,243.67	8.01	NP	NP	6,235.66
MW-9*	6/25/2013	6,229.03	8.67	NP	NP	6,220.36
MW-9	9/24/2013	6,229.03	NM	NM	NM	NM
MW-9	12/5/2013	P/A	P/A	P/A	P/A	P/A

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
SVE-4"	3/6/2013	6,253.41	15.14	NP	NP	6,238.27
SVE-4"*	6/25/2013	6,239.22	15.60	NP	NP	6,223.62
SVE-4"	9/24/2013	6,239.22	14.83	NP	NP	6,224.39
SVE-4"	12/5/2013	6,239.22	14.56	NP	NP	6,224.66
SVE-4"	3/20/2014	6,239.22	14.19	NP	NP	6,225.03
SVE-4"	6/16/2014	6,239.22	14.99	NP	NP	6,224.23
SVE-4"	9/10/2014	6,239.22	15.05	NP	NP	6,224.17
SVE-4"	12/3/2014	6,239.22	14.71	NP	NP	6,224.51
SVE-4"	3/5/2015	6,239.22	13.86	NP	NP	6,225.36
SVE-4"	6/18/2015	6,239.22	14.49	NP	NP	6,224.73
SVE-4"	9/23/2015	6,239.22	14.89	NP	NP	6,224.33
SVE-4"	12/18/2015	6,239.22	14.34	NP	NP	6,224.88
SVE-4"	9/12/2016	6,239.22	15.78	NP	NP	6,223.44
SVE-4"	3/28/2017	6,239.22	14.18	NP	NP	6,225.04
SVE-4"**	10/30/2017	6,238.94	14.74	NP	NP	6,224.20
SVE-4"	3/28/2018	6,238.94	14.36	NP	NP	6,224.58
SVE-4"	9/14/2018	6,238.94	15.74	NP	NP	6,223.20
SVE-4"	3/28/2019	6,238.94	14.41	NP	NP	6,224.53
SVE-4"	5/16/2019	6,238.94	14.57	NP	NP	6,224.37
SVE-4"	8/13/2019	6,238.94	15.61	NP	NP	6,223.33
SVE-4"***	9/23/2019	6,239.38	15.99	NP	NP	6,223.39
SVE-4"	3/18/2020	6,239.38	15.30	NP	NP	6,224.08
SVE-4"	6/11/2020	6,239.38	15.86	NP	NP	6,223.52
SVE-4"	9/22/2020	6,239.38	16.51	NP	NP	6,222.87
SVE-4"	12/18/2020	6,239.38	16.27	NP	NP	6,223.11
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MW-10	12/5/2013	6,231.08	7.23	NP	NP	6,223.85
MW-10	3/20/2014	6,231.08	6.90	NP	NP	6,224.18
MW-10	6/16/2014	6,231.08	7.77	NP	NP	6,223.31
MW-10	9/10/2014	6,231.08	7.75	NP	NP	6,223.33
MW-10	12/3/2014	6,231.08	7.81	NP	NP	6,223.27
MW-10	3/5/2015	6,231.08	6.29	NP	NP	6,224.79
MW-10	6/18/2015	6,231.08	7.26	NP	NP	6,223.82
MW-10	9/23/2015	6,231.08	7.53	NP	NP	6,223.55
MW-10	12/18/2015	6,231.08	7.06	NP	NP	6,224.02
MW-10	9/12/2016	6,231.08	8.25	NP	NP	6,222.83
MW-10	3/28/2017	6,231.08	6.90	NP	NP	6,224.18
MW-10**	10/30/2017	6,230.82	6.23	NP	NP	6,224.59

TABLE 1

**GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO**

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-10	3/28/2018	6,230.82	7.06	NP	NP	6,223.76
MW-10	9/14/2018	6,230.82	8.44	NP	NP	6,222.38
MW-10	3/28/2019	6,230.82	7.09	NP	NP	6,223.73
MW-10	5/16/2019	6,230.82	7.25	NP	NP	6,223.57
MW-10	8/13/2019	6,230.82	8.37	NP	NP	6,222.45
MW-10***	9/23/2019	6,231.26	8.69	NP	NP	6,222.57
MW-10	3/18/2020	6,231.26	8.05	NP	NP	6,223.21
MW-10	6/11/2020	6,231.26	8.56	NP	NP	6,222.70
MW-10	9/22/2020	6,231.26	9.16	NP	NP	6,222.10
MW-10	12/18/2020	6,231.26	9.07	NP	NP	6,222.19
MW-11	12/5/2013	6,232.35	8.24	NP	NP	6,224.11
MW-11	3/20/2014	6,232.35	7.91	NP	NP	6,224.44
MW-11	6/16/2014	6,232.35	8.75	NP	NP	6,223.60
MW-11	9/10/2014	6,232.35	8.75	NP	NP	6,223.60
MW-11	12/3/2014	6,232.35	8.42	NP	NP	6,223.93
MW-11	3/5/2015	6,232.35	7.36	NP	NP	6,224.99
MW-11	6/18/2015	6,232.35	8.24	NP	NP	6,224.11
MW-11	9/23/2015	6,232.35	8.55	NP	NP	6,223.80
MW-11	12/18/2015	6,232.35	8.01	NP	NP	6,224.34
MW-11	9/12/2016	6,232.35	9.22	NP	NP	6,223.13
MW-11	3/28/2017	6,232.35	7.87	NP	NP	6,224.48
MW-11**	10/30/2017	6,232.10	9.10	NP	NP	6,223.00
MW-11	3/28/2018	6,232.10	8.11	NP	NP	6,223.99
MW-11	9/14/2018	6,232.10	9.42	NP	NP	6,222.68
MW-11	3/28/2019	6,232.10	8.10	NP	NP	6,224.00
MW-11	5/16/2019	6,232.10	8.27	NP	NP	6,223.83
MW-11	8/13/2019	6,232.10	12.23	NP	NP	6,219.87
MW-11***	9/23/2019	6,232.51	9.71	NP	NP	6,222.80
MW-11	3/18/2020	6,232.51	9.05	NP	NP	6,223.46
MW-11	6/11/2020	6,232.51	9.62	NP	NP	6,222.89
MW-11	9/22/2020	6,232.51	10.22	NP	NP	6,222.29
MW-11	12/18/2020	6,232.51	10.08	NP	NP	6,222.43
MW-12	12/5/2013	6,238.15	14.37	14.36	0.01	6,223.79
MW-12	3/20/2014	6,238.15	14.03	NP	NP	6,224.12
MW-12	6/16/2014	6,238.15	14.77	NP	NP	6,223.38
MW-12	9/10/2014	6,238.15	14.88	NP	NP	6,223.27

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-12	12/3/2014	6,238.15	14.56	NP	NP	6,223.59
MW-12	3/5/2015	6,238.15	13.69	NP	NP	6,224.46
MW-12	6/18/2015	6,238.15	14.28	NP	NP	6,223.87
MW-12	9/23/2015	6,238.15	14.67	NP	NP	6,223.48
MW-12	12/18/2015	6,238.15	14.18	NP	NP	6,223.97
MW-12	9/12/2016	6,238.15	15.22	NP	NP	6,222.93
MW-12	3/28/2017	6,238.15	14.06	NP	NP	6,224.09
MW-12**	10/30/2017	6,237.72	14.57	NP	NP	6,223.15
MW-12	3/28/2018	6,237.72	14.23	NP	NP	6,223.49
MW-12	9/14/2018	6,237.72	15.61	NP	NP	6,222.11
MW-12	3/28/2019	6,237.72	14.39	NP	NP	6,223.33
MW-12	5/16/2019	6,237.72	14.47	NP	NP	6,223.25
MW-12	8/13/2019	6,237.72	15.83	NP	NP	6,221.89
MW-12***	9/23/2019	6,238.35	15.80	NP	NP	6,222.55
MW-12	3/18/2020	6,238.35	15.20	NP	NP	6,223.15
MW-12	6/11/2020	6,238.35	15.71	NP	NP	6,222.64
MW-12	9/22/2020	6,238.35	16.35	NP	NP	6,222.00
MW-12	12/18/2020	6,238.35	16.21	NP	NP	6,222.14
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MW-13	12/5/2013	6,237.85	14.18	NP	NP	6,223.67
MW-13	3/20/2014	6,237.85	13.86	NP	NP	6,223.99
MW-13	6/16/2014	6,237.85	14.61	NP	NP	6,223.24
MW-13	9/10/2014	6,237.85	14.69	NP	NP	6,223.16
MW-13	12/3/2014	6,237.85	14.37	NP	NP	6,223.48
MW-13	3/5/2015	6,237.85	13.46	NP	NP	6,224.39
MW-13	6/18/2015	6,237.85	14.09	NP	NP	6,223.76
MW-13	9/23/2015	6,237.85	14.47	NP	NP	6,223.38
MW-13	12/18/2015	6,237.85	13.98	NP	NP	6,223.87
MW-13	9/12/2016	6,237.85	15.03	NP	NP	6,222.82
MW-13	3/28/2017	6,237.85	13.85	NP	NP	6,224.00
MW-13**	10/30/2017	6,237.57	14.34	NP	NP	6,223.23
MW-13	3/28/2018	6,237.57	14.14	NP	NP	6,223.43
MW-13	9/14/2018	6,237.57	15.34	NP	NP	6,222.23
MW-13	3/28/2019	6,237.57	14.14	NP	NP	6,223.43
MW-13	5/16/2019	6,237.57	14.22	NP	NP	6,223.35
MW-13	8/13/2019	6,237.57	15.14	NP	NP	6,222.43
MW-13***	9/23/2019	6,238.04	15.61	NP	NP	6,222.43
MW-13	3/18/2020	6,238.04	14.98	NP	NP	6,223.06

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-13	6/11/2020	6,238.04	15.52	NP	NP	6,222.52
MW-13	9/22/2020	6,238.04	16.11	NP	NP	6,221.93
MW-13	12/18/2020	6,238.04	16.00	NP	NP	6,222.04
MW-14	10/30/2017	6,234.11	11.40	NP	NP	6,222.71
MW-14	3/28/2018	6,234.11	10.93	NP	NP	6,223.18
MW-14	9/14/2018	6,234.11	12.21	NP	NP	6,221.90
MW-14	3/28/2019	6,234.11	11.18	NP	NP	6,222.93
MW-14	5/16/2019	6,234.11	11.20	NP	NP	6,222.91
MW-14	8/13/2019	6,234.11	12.16	NP	NP	6,221.95
MW-14***	9/23/2019	6,234.55	12.40	NP	NP	6,222.15
MW-14	3/18/2020	6,234.55	12.01	NP	NP	6,222.54
MW-14	6/11/2020	6,234.55	12.51	NP	NP	6,222.04
MW-14	9/22/2020	6,234.55	13.09	NP	NP	6,221.46
MW-14	12/18/2020	6,234.55	12.93	NP	NP	6,221.62
MW-15	10/30/2017	6,235.08	12.54	NP	NP	6,222.54
MW-15	3/28/2018	6,235.08	12.09	NP	NP	6,222.99
MW-15	9/14/2018	6,235.08	13.42	NP	NP	6,221.66
MW-15	3/28/2019	6,235.08	12.25	NP	NP	6,222.83
MW-15	5/16/2019	6,235.08	12.40	NP	NP	6,222.68
MW-15	8/13/2019	6,235.08	13.40	NP	NP	6,221.68
MW-15***	9/23/2019	6,235.53	13.82	NP	NP	6,221.71
MW-15	3/18/2020	6,235.53	13.30	NP	NP	6,222.23
MW-15	6/11/2020	6,235.53	13.76	NP	NP	6,221.77
MW-15	9/22/2020	6,235.53	14.37	NP	NP	6,221.16
MW-15	12/18/2020	6,235.53	14.24	NP	NP	6,221.29
MW-16	10/30/2017	6,237.27	13.65	NP	NP	6,223.62
MW-16	3/28/2018	6,237.27	13.37	NP	NP	6,223.90
MW-16	9/14/2018	6,237.27	14.88	NP	NP	6,222.39
MW-16	3/28/2019	6,237.27	13.60	NP	NP	6,223.67
MW-16	5/16/2019	6,237.27	13.40	NP	NP	6,223.87
MW-16	8/13/2019	6,237.27	14.45	NP	NP	6,222.82
MW-16***	9/23/2019	6,237.73	15.00	NP	NP	6,222.73
MW-16	3/18/2020	6,237.73	14.44	NP	NP	6,223.29
MW-16	6/11/2020	6,237.73	14.96	NP	NP	6,222.77
MW-16	9/22/2020	6,237.73	15.59	NP	NP	6,222.14

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-16	12/18/2020	6,237.73	15.44	NP	NP	6,222.29
MW-17	8/13/2019	6,236.06	10.74	NP	NP	6,225.32
MW-17***	9/23/2019	6,236.72	10.96	NP	NP	6,225.76
MW-17	3/18/2020	6,236.72	11.32	NP	NP	6,225.40
MW-17	6/11/2020	6,236.72	11.33	NP	NP	6,225.39
MW-17	9/22/2020	6,236.72	11.24	NP	NP	6,225.48
MW-17	12/18/2020	6,236.72	11.39	NP	NP	6,225.33
MW-18	8/13/2019	6,234.97	14.92	NP	NP	6,220.05
MW-18***	9/23/2019	6,235.42	13.74	NP	NP	6,221.68
MW-18	3/18/2020	6,235.42	DRY	NP	NP	DRY
MW-18	6/11/2020	6,235.42	13.12	NP	NP	6,222.30
MW-18	9/22/2020	6,235.42	13.32	NP	NP	6,222.10
MW-18	12/18/2020	6,235.42	13.60	NP	NP	6,221.82
MW-19	8/13/2019	6,231.05	11.87	NP	NP	6,219.18
MW-19***	9/23/2019	6,231.51	10.23	NP	NP	6,221.28
MW-19	3/18/2020	6,231.51	9.96	NP	NP	6,221.55
MW-19	6/11/2020	6,231.51	10.21	NP	NP	6,221.30
MW-19	9/22/2020	6,231.51	10.78	NP	NP	6,220.73
MW-19	12/18/2020	6,231.51	10.92	NP	NP	6,220.59
MW-20	8/13/2019	6,227.83	8.01	NP	NP	6,219.82
MW-20***	9/23/2019	6,228.28	8.13	NP	NP	6,220.15
MW-20	3/18/2020	6,228.28	7.71	NP	NP	6,220.57
MW-20	6/11/2020	6,228.28	8.11	NP	NP	6,220.17
MW-20	9/22/2020	6,228.28	8.88	NP	NP	6,219.40
MW-20	12/18/2020	6,228.28	8.80	NP	NP	6,219.48

* 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

TABLE 1

GROUNDWATER ELEVATION SUMMARY
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
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BTOC - below top of casing

DEST - well has been destroyed

NM- not measured

NP - no product

P/A- plugged and abandoned

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

UNK - data is not known

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		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
	9/21/1999	8.5	0.8	2.2	1.9
	11/16/1999	32	0.8	3.4	7
	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)	5	1,000	700	620	
MW-2	2/27/2006	<1.0	<1.0	<1.0	<3.0
	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-3	2/27/2006	36.3	21.1	234	1,010
	10/6/2006	1.5	<1.0	11	36
	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
MW-4	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
	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-4	2/16/2001	54	17.8	1.01	19.8
	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)	5	1,000	700	620	
MW-5	9/19/2005	<1.0	400	170	1,700
	12/1/2005	12.6	176	187	961
	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
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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-6	5/10/2001	506	23.2	122	384
	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
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
	10/31/2001	6.2	<2.0	<2.0	<2.0

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-7	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)	5	1,000	700	620	
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
MW-9	9/21/1999	3.7	550	110	920
	2/15/2000	0.5	1.4	0.6	<1.3
	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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-9	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
SVE-4"	3/6/2013	<2.0	<2.0	<2.0	<4.0
	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	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
	4/16/2021	<1.0	<1.0	<1.0	<2.0

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
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
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
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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		5	1,000	700	620
MW-12	3/18/2020 9/22/2020	320 170	190 5.6	3.8 <5.0	54 <7.5
<hr/>					
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
<hr/>					
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
	3/18/2020	<1.0	<1.0	<1.0	<1.5
	9/22/2020	<1.0	<1.0	<1.0	<1.5
	<hr/>				
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
	<hr/>				
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

TABLE 2

GROUNDWATER LABORATORY ANALYTICAL RESULTS
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Well Name	Sample Date	Benzene ($\mu\text{g}/\text{L}$)	Toluene ($\mu\text{g}/\text{L}$)	Ethylbenzene ($\mu\text{g}/\text{L}$)	Total Xylenes ($\mu\text{g}/\text{L}$)
NMWQCC Standard ($\mu\text{g}/\text{L}$)	5	1,000	700	620	
MW-16	9/22/2020	<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
MW-18	8/13/2019	<2.0	<2.0	<2.0	<4.0
	9/22/2020	<1.0	<1.0	<1.0	<1.5
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
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:**Bold** - indicates sample exceeds NMWQCC standard

< - indicates result is less than laboratory reporting detection limit

 $\mu\text{g}/\text{L}$ - micrograms per liter

DEST - well has been destroyed

NS - not sampled

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

TABLE 3

PNUEMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Date	Well-ID	Cycles	Run Time	Cycles (Lifetime)	Lifetime	Estimated Product Recovered (gallon)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Any Faults	Notes/Maintenance Completed
3/14/2018	MW-6	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	MW-6	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	MW-6	88	19:01:02	147	19:03:24	0.34			0.0	12.9	ON	NO	Trace fluids in barrel.
7/16/2018	MW-6	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	MW-6	267	63:23:13	326	64:01:35	1.04	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	MW-6	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	MW-6	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. Desicant tanks were both 100% full the top dryer desicant will need to be replaced soon.
11/6/2018	MW-6	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 desicant in both dryers. Delay left at 6 hours.
11/28/2018	MW-6	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.
2019 Data													
1/21/2019	MW-6	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 mistroke depth was 17 feet, moved pump up 4 inches.
2/26/2019	MW-6	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.
3/28/2019	MW-6	400	66:03:31	1,491	38:07:51	14.36		15.9		NM	ON	NO	Cleaned skimmer, 14 inches of product in barrel, pump depth was 16 feet.

TABLE 3

PNUEMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Date	Well-ID	Cycles	Run Time	Cycles (Lifetime)	Lifetime	Estimated Product Recovered (gallon)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Any Faults	Notes/Maintenance Completed
4/16/2019	MW-6	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	MW-6	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	MW-6	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	MW-6	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	MW-6	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 Florence 47X.
12/19/2019	MW-6	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.
2020 Data													
3/18/2020	MW-6	NA	NA	NA	NA	15.08	16.6	17.21	0.91	NA	NA	NA	Replaced sock in MW-7
3/26/2020	MW-6	NA	NA	NA	NA	15.21	16.55	17.11	0.91	NA	NA	NA	Re-install sipper on MW-6
4/15/2020	MW-6	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	MW-6	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).
5/27/2020	MW-6	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	MW-6	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	MW-6	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	MW-6	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	MW-6	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	MW-6	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	MW-6	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	MW-6	-	-	-	-	16.03	17.55	19.29	1.74	-	OFF	-	System down, solar panel not charging battery.

TABLE 3

PNUEMATIC PRODUCT RECOVERY SYSTEM DATA - MW-6
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Date	Well-ID	Cycles	Run Time	Cycles (Lifetime)	Lifetime	Estimated Product Recovered (gallon)	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Any Faults	Notes/Maintenance Completed
12/18/2020	MW-6	-	-	-	-	16.31	17.44	18.76	1.32	-	OFF	-	Bailed 36.3 oz. yellow product and three gallons black/gray H2O.

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

PNUEMATIC PRODUCT RECOVERY SYSTEM DATA - MW-7
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

Date	Well-ID	Cycles	Run Time (hours)	Cycles (Lifetime)	Lifetime (hours)	Estimated Product Recovered (gallon)	Depth to Product (feet)	Depth to Water (feet)	PSH Thickness (feet)	Battery Voltage	System ON/OFF	Any Faults	Notes/Maintenance Completed
12/19/2019	MW-7	-	-	-	-	0.14	13.39	13.95	0.56	-	-	-	Bailed 18 oz and installed sock
3/18/2020	MW-7	-	-	-	-	0.27	13.15	13.48	0.33	-	-	-	Replaced sock in MW-7
3/26/2020	MW-7	-	-	-	-	0.33	13.08	13.35	0.27	-	-	-	Bailed 7.5 oz
4/15/2020	MW-7	-	-	-	-	0.54	13.1	13.38	0.28	-	-	-	Bailed 9 oz replaced sock
4/30/2020	MW-7	-	-	-	-	0.70	13.16	13.36	0.2	-	-	-	Bailed 3.5 oz. replaced sock
5/27/2020	MW-7	-	-	-	-	0.87	13.46	13.66	0.2	-	-	-	Bailed 5 oz. sock 100% saturated, replaced sock.
6/11/2020	MW-7	-	-	-	-	1.16	13.48	14.35	0.87	-	-	-	Bailed 21 oz. sock 100% saturated, replaced sock
6/25/2020	MW-7	-	-	-	-	1.44	13.62	14.52	0.9	-	-	-	Bailed 18 oz. sock 100% saturated with yellow product, replaced sock
7/24/2020	MW-7	-	-	-	-	2.09	13.78	15.22	1.44	-	-	-	Bailed 66 oz. pale yellow product. Replaced sock.
8/6/2020	MW-7	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	MW-7	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	MW-7	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	MW-7	-	-	-	-	2.89	14.10	15.27	1.17	-	OFF	-	System down, solar panel not charging battery.
12/18/2020	MW-7	-	-	-	-	3.01	13.9	15.02	1.12	-	OFF	-	Bailed 15.6 oz. yellow/orange product and three gallons gray H2O.

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

ENCLOSURE A – 2020 SAMPLE COLLECTION FORMS

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: 90329021

Project Location: Dogie Compressor
Sampler: Eric Carroll

Sample ID: MW-10
Sample Date: 3/18/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: 1015
Shipping Method: Hand Delivery

Depth to Water: 1.05
Time: _____

Total Depth of Well: 8-38
Depth to Product: _____

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

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or ms)	Comments

Comments: Grab sample insufficient water to purge
Clear colorless w/ black/red particulates Strong sulfide odor

Describe Deviations from SOP: _____

Signature: Eric Carroll

Date: 3/18/20 7/17/2019

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: 90329021

Project Location: Dogie Compressor
Sampler: Eric Carroll

Sample ID: MW-14
Sample Date: 3/18/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: 1000
Shipping Method: Hand Delivery

Depth to Water: 12.01
Time: 0942

Total Depth of Well: 19.44
Depth to Product: NA

Vol. of Water to Purge: 3.6
(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (µS or mS)	Comments
0942	0.25	0.25	7.56	54.9	5.65	Turbid 16 brown
0944	0.25	0.50	7.51	54.7	5.73	
0946	0.50	1.0	7.43	53.8	5.89	
0948	0.50	1.5	7.43	53.9	5.13	
0950	0.50	2.0	7.41	53.2	5.14	
0952	0.50	2.5	7.39	53.2	4.90	
0954	0.50	3.0	7.39	53.2	4.87	↓

Comments:

Describe Deviations from SOP:

Signature: Eric Carroll Date: 3/18/20 <7/17/2019>

Groundwater Sample Collection Form



Project Name: Groundwater Monitoring
Project Number: 90329021

Project Location: Dogie Compressor
Sampler: Eric Carroll

Sample ID: MW-17
Sample Date: 3/18/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: 1046
Shipping Method: Hand Delivery

Depth to Water: 11.32
Time: _____

Total Depth of Well: 11.96
Depth to Product: _____

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

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments

Comments: Grab Sample insufficient water to purge
Turbid it brown

Describe Deviations from SOP:

Signature: Eric Carroll Date: 3/18/20 7/17/2019

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: 90329021

Project Location: Dogie Compressor
Sampler: Eric Carroll

Sample ID: MW-15
Sample Date: 3/18/2020

Matrix: Groundwater
Sample Time: DRY

Laboratory: Hall Environmental
Analyses: BTEX 8021

Shipping Method: Hand Delivery

Depth to Water: DRY
Time:

Total Depth of Well:
Depth to Product:

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

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments

Comments: DRY

Describe Deviations from SOP:

Signature: Eric Carroll Date: 3/18/20 #17/2019

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: _____

Project Location: Dogie CS
Sampler: Eric Carroll

Sample ID: MW-S
Sample Date: 9/22/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: _____
Shipping Method: Hand Delivery

Depth to Water: 16.07
Time: 1314

Total Depth of Well:
Depth to Product: 15.89

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

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments

Comments: N5-FP Bailed 302 of product from well instead of Sock

Describe Deviations from SOP: _____

Signature: _____

Date: _____

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: _____

Project Location: Dogie CS
Sampler: Eric Carroll

Sample ID: MW-11
Sample Date: 9/22/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: 1340
Shipping Method: Hand Delivery

Depth to Water: 10.27
Time: 1330

Total Depth of Well: 14.88
Depth to Product: N/D

Vol. of Water to Purge: 2.2 (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or mS)	Comments
1333	0.5	0.5	7.80	66.7	3.47	
1335	0.5	1.0	7.84	64.6	1728.45	
1337	0.5	1.5	7.83	64.4	1726.05	

Comments: _____

Describe Deviations from SOP: _____

Signature: _____ Date: _____

**Groundwater Sample Collection Form**Project Name: Groundwater Monitoring
Project Number: _____Project Location: Dogie CS
Sampler: Eric CarrollSample ID: MW-12
Sample Date: 9/22/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021Matrix: Groundwater
Sample Time: 1240
Shipping Method: Hand DeliveryDepth to Water: 16.35
Time: 1232Total Depth of Well: 18.98
Depth to Product: _____Vol. of Water to Purge: 1.2 (height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols
Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments
1235	0.25	0.25	8.23	66.0	4.63	clear colorless
1236	0.25	0.50	7.19	64.9	3.99	
1237	0.25	0.75	7.17	64.8	3.53	
1238	0.25	1.00	7.13	64.4	3.39	
1239	0.25	1.25	7.13	64.2	3.38	

Comments: clear colorless slight odor no sheen

Describe Deviations from SOP: _____

Signature: eric carroll Date: 9/22/2020

Groundwater Sample Collection Form



LT Environmental, Inc.

848 E. 2nd Avenue

Durango, Colorado 81301

T 970.385.1096

Project Name: Groundwater Monitoring
Project Number:

Project Location: Dogie CS
Sampler: Eric Carroll / *JOSH ADAMS*

Sample ID: MW-13

Sample Date: 9/22/2020

Laboratory: Hall Environmental

Analyses: BTEX 8021

Depth to Water: 16.11

Matrix: Groundwater
Sample Time: 1132
Shipping Method: Hand Delivery

Time: 1124

Total Depth of Well: 18-55
Depth to Product: ND

Vol. of Water to Purge: 1.2
Method of Purging: Dedicated PVC Bailer
Method of Sampling: Dedicated PVC Bailer

Comments: Dry at 0.85 gallons

Describe Deviations from SOP:

Date: 9/22/2020

Groundwater Sample Collection Form



LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number:

Project Location: Dogie CS
Sampler: Eric Carroll *JA*

Sample ID: MW-14
Sample Date: 9/22/2020

Sample Date: 9/22/2020

Laboratory: Hall Environmental

Analyses: BTEX 8021

Analyses: DTEK 6021

Depth to Water: 13.09
Time: 1115

Matrix: Groundwater
Sample Time: 1140
Shipping Method: Hand Delivery

Vol. of Water to Purge: ≈ 1.0 gallons

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

Method of Purging: Dedicated PVC Bailer

Method of Sampling: Dedicated PVC Bailer

Comments: Sampled C 1140

Describe Deviations from SOP:

H₂O reacted w/ HCl, used HgCl₂
/ preservative

Signature: J. DeLoach

Date: 9-22-20

Groundwater Sample Collection Form



LT Environmental, Inc.

848 E. 2nd Avenue

Durango, Colorado 81301

T 970,385,1096

Project Name: Groundwater Monitoring
Project Number:

Project Location: Dogie CS
Sampler: ~~Eric Carroll~~ SA

Sample ID: MW15

Sample Date: 9/22/2020

Laboratory: Hall Environmental

Analyses: BTEX 8021

Depth to Water: 14.37
Time: 1218

Matrix: Groundwater
Sample Time: 1230
Shipping Method: Hand Delivery

Vol. of Water to Purge: ≈ 3.25 gallons

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

Method of Purging: Dedicated PVC Baiter

Method of Sampling: Dedicated PVC Bailer

Comments: sampled @ 1230

Describe Deviations from SOP: reacted w/ HCl, used $HgCl_2$

Signature: John Doe

Date: 4-22-20

Groundwater Sample Collection Form

LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number: 090320

Project Location: Dogie CS
Sampler: Eric Carroll, Josh Adams

Sample ID: MW18
Sample Date: 9/22/2020
Laboratory: Hall Environmental
Analyses: BTEX 8021

Matrix: Groundwater
Sample Time: 1200
Shipping Method: Hand Delivery

Depth to Water: 13.32
Time: 1150

Total Depth of Well: 15.35
Depth to Product: NO

Vol. of Water to Purge: ≈ 0.33 gallons

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

Method of Purging: Dedicated PVC Bailer

Method of Sampling: Dedicated PVC Bailer

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or ms)	Comments

Comments: No parameter IW sampled brown & cloudy H₂O w/ no sheen or odor @ 1200

Describe Deviations from SOP:
grab sample due to insufficient H₂O, no parameters

Signature: Josh Adams

Date: 9-22-20

Groundwater Sample Collection Form



LT Environmental, Inc.
848 E. 2nd Avenue
Durango, Colorado 81301
T 970.385.1096

Project Name: Groundwater Monitoring
Project Number:

Project Location: Dogie CS
Sampler: Eric Carroll

Sample ID: MW20

Matrix: Groundwater

Sample Date: 9/22/2020

Sample Time: 1447

Laboratory: Hall Environmental

Shipping Method: Hand Delivery

Analyses: BTEX 8021

Planning Within Grand Delivery

Depth to Water: 18.88

Total Depth of Well: 1043

Time:

Depth to Product: 1/8

Vol. of Water to Purge: 6rabs

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

Method of Purging: Dedicated PVC Bailer

water demand = 0.16571812 - WEF 0.0327 RSI + WEF 0.5 WEF VWS

Method of Sampling: Dedicated PVC Bailer

For more information about the National Institute of Child Health and Human Development, please visit our website at www.nichd.nih.gov.

Comments: Black Trivial Grab Sample

Describe Deviations from SOP:

Signature: Eric Corcoran Date: 9/22/2020

ENCLOSURE B – LABORATORY ANALYTICAL REPORTS



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

March 26, 2020

Kijun Hong
Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL: (505) 632-4475
FAX

RE: Dogie CS OrderNo.: 2003893

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 10 sample(s) on 3/19/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order: 2003893

Date Reported: 3/26/2020

CLIENT:	Harvest	Lab Order:	2003893
Project:	Dogie CS		

Lab ID: 2003893-001 **Collection Date:** 3/18/2020 10:15:00 AM**Client Sample ID:** MW-10 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 8260: VOLATILES SHORT LIST **Analyst:** JMR

Benzene	ND	2.0	µg/L	2	3/24/2020 12:23:46 AM	R67514
Toluene	ND	2.0	µg/L	2	3/24/2020 12:23:46 AM	R67514
Ethylbenzene	ND	2.0	µg/L	2	3/24/2020 12:23:46 AM	R67514
Xylenes, Total	ND	3.0	µg/L	2	3/24/2020 12:23:46 AM	R67514
Surr: 1,2-Dichloroethane-d4	93.3	70-130	%Rec	2	3/24/2020 12:23:46 AM	R67514
Surr: 4-Bromofluorobenzene	99.2	70-130	%Rec	2	3/24/2020 12:23:46 AM	R67514
Surr: Dibromofluoromethane	101	70-130	%Rec	2	3/24/2020 12:23:46 AM	R67514
Surr: Toluene-d8	99.7	70-130	%Rec	2	3/24/2020 12:23:46 AM	R67514

Lab ID: 2003893-002 **Collection Date:** 3/18/2020 10:29:00 AM**Client Sample ID:** MW-11 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 8260: VOLATILES SHORT LIST **Analyst:** JMR

Benzene	ND	1.0	µg/L	1	3/24/2020 12:52:32 AM	R67514
Toluene	ND	1.0	µg/L	1	3/24/2020 12:52:32 AM	R67514
Ethylbenzene	ND	1.0	µg/L	1	3/24/2020 12:52:32 AM	R67514
Xylenes, Total	ND	1.5	µg/L	1	3/24/2020 12:52:32 AM	R67514
Surr: 1,2-Dichloroethane-d4	89.3	70-130	%Rec	1	3/24/2020 12:52:32 AM	R67514
Surr: 4-Bromofluorobenzene	93.3	70-130	%Rec	1	3/24/2020 12:52:32 AM	R67514
Surr: Dibromofluoromethane	99.3	70-130	%Rec	1	3/24/2020 12:52:32 AM	R67514
Surr: Toluene-d8	102	70-130	%Rec	1	3/24/2020 12:52:32 AM	R67514

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 1 of 6

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order: 2003893

Date Reported: 3/26/2020

CLIENT:	Harvest	Lab Order:	2003893
Project:	Dogie CS		

Lab ID: 2003893-003 **Collection Date:** 3/18/2020 11:05:00 AM

Client Sample ID: MW-12 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	320	5.0		µg/L	5	3/24/2020 1:21:14 AM	R67514
Toluene	190	5.0		µg/L	5	3/24/2020 1:21:14 AM	R67514
Ethylbenzene	3.8	2.5		µg/L	5	3/24/2020 1:21:14 AM	R67514
Xylenes, Total	54	7.5		µg/L	5	3/24/2020 1:21:14 AM	R67514
Surr: 1,2-Dichloroethane-d4	95.1	70-130	%Rec		5	3/24/2020 1:21:14 AM	R67514
Surr: 4-Bromofluorobenzene	93.1	70-130	%Rec		5	3/24/2020 1:21:14 AM	R67514
Surr: Dibromofluoromethane	99.1	70-130	%Rec		5	3/24/2020 1:21:14 AM	R67514
Surr: Toluene-d8	103	70-130	%Rec		5	3/24/2020 1:21:14 AM	R67514

Lab ID: 2003893-004 **Collection Date:** 3/18/2020 10:05:00 AM

Client Sample ID: MW-13 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	3/24/2020 1:49:53 AM	R67514
Toluene	ND	1.0		µg/L	1	3/24/2020 1:49:53 AM	R67514
Ethylbenzene	ND	1.0		µg/L	1	3/24/2020 1:49:53 AM	R67514
Xylenes, Total	ND	1.5		µg/L	1	3/24/2020 1:49:53 AM	R67514
Surr: 1,2-Dichloroethane-d4	91.9	70-130	%Rec		1	3/24/2020 1:49:53 AM	R67514
Surr: 4-Bromofluorobenzene	99.7	70-130	%Rec		1	3/24/2020 1:49:53 AM	R67514
Surr: Dibromofluoromethane	100	70-130	%Rec		1	3/24/2020 1:49:53 AM	R67514
Surr: Toluene-d8	102	70-130	%Rec		1	3/24/2020 1:49:53 AM	R67514

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order: 2003893

Date Reported: 3/26/2020

CLIENT:	Harvest	Lab Order:	2003893
Project:	Dogie CS		

Lab ID: 2003893-005 **Collection Date:** 3/18/2020 10:00:00 AM

Client Sample ID: MW-14 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	3/24/2020 2:18:32 AM	R67514
Toluene	ND	1.0		µg/L	1	3/24/2020 2:18:32 AM	R67514
Ethylbenzene	ND	1.0		µg/L	1	3/24/2020 2:18:32 AM	R67514
Xylenes, Total	ND	1.5		µg/L	1	3/24/2020 2:18:32 AM	R67514
Surr: 1,2-Dichloroethane-d4	92.9	70-130	%Rec		1	3/24/2020 2:18:32 AM	R67514
Surr: 4-Bromofluorobenzene	94.0	70-130	%Rec		1	3/24/2020 2:18:32 AM	R67514
Surr: Dibromofluoromethane	98.8	70-130	%Rec		1	3/24/2020 2:18:32 AM	R67514
Surr: Toluene-d8	106	70-130	%Rec		1	3/24/2020 2:18:32 AM	R67514

Lab ID: 2003893-006 **Collection Date:** 3/18/2020 11:45:00 AM

Client Sample ID: MW-15 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	2.1	2.0		µg/L	2	3/24/2020 2:47:11 AM	R67514
Toluene	ND	2.0		µg/L	2	3/24/2020 2:47:11 AM	R67514
Ethylbenzene	ND	2.0		µg/L	2	3/24/2020 2:47:11 AM	R67514
Xylenes, Total	ND	3.0		µg/L	2	3/24/2020 2:47:11 AM	R67514
Surr: 1,2-Dichloroethane-d4	87.6	70-130	%Rec		2	3/24/2020 2:47:11 AM	R67514
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec		2	3/24/2020 2:47:11 AM	R67514
Surr: Dibromofluoromethane	102	70-130	%Rec		2	3/24/2020 2:47:11 AM	R67514
Surr: Toluene-d8	97.2	70-130	%Rec		2	3/24/2020 2:47:11 AM	R67514

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order: 2003893

Date Reported: 3/26/2020

CLIENT:	Harvest	Lab Order:	2003893
Project:	Dogie CS		

Lab ID: 2003893-007 **Collection Date:** 3/18/2020 11:03:00 AM**Client Sample ID:** MW-16 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 8260: VOLATILES SHORT LIST **Analyst:** JMR

Benzene	ND	1.0	µg/L	1	3/24/2020 3:15:54 AM	R67514
Toluene	ND	1.0	µg/L	1	3/24/2020 3:15:54 AM	R67514
Ethylbenzene	ND	1.0	µg/L	1	3/24/2020 3:15:54 AM	R67514
Xylenes, Total	ND	1.5	µg/L	1	3/24/2020 3:15:54 AM	R67514
Surr: 1,2-Dichloroethane-d4	90.1	70-130	%Rec	1	3/24/2020 3:15:54 AM	R67514
Surr: 4-Bromofluorobenzene	93.4	70-130	%Rec	1	3/24/2020 3:15:54 AM	R67514
Surr: Dibromofluoromethane	102	70-130	%Rec	1	3/24/2020 3:15:54 AM	R67514
Surr: Toluene-d8	98.0	70-130	%Rec	1	3/24/2020 3:15:54 AM	R67514

Lab ID: 2003893-008 **Collection Date:** 3/18/2020 10:40:00 AM**Client Sample ID:** MW-17 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 8260: VOLATILES SHORT LIST **Analyst:** JMR

Benzene	ND	1.0	µg/L	1	3/24/2020 3:44:34 AM	R67514
Toluene	ND	1.0	µg/L	1	3/24/2020 3:44:34 AM	R67514
Ethylbenzene	ND	1.0	µg/L	1	3/24/2020 3:44:34 AM	R67514
Xylenes, Total	ND	1.5	µg/L	1	3/24/2020 3:44:34 AM	R67514
Surr: 1,2-Dichloroethane-d4	93.3	70-130	%Rec	1	3/24/2020 3:44:34 AM	R67514
Surr: 4-Bromofluorobenzene	99.0	70-130	%Rec	1	3/24/2020 3:44:34 AM	R67514
Surr: Dibromofluoromethane	101	70-130	%Rec	1	3/24/2020 3:44:34 AM	R67514
Surr: Toluene-d8	101	70-130	%Rec	1	3/24/2020 3:44:34 AM	R67514

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order: 2003893

Date Reported: 3/26/2020

CLIENT:	Harvest	Lab Order:	2003893
Project:	Dogie CS		

Lab ID: 2003893-009 **Collection Date:** 3/18/2020 11:41:00 AM

Client Sample ID: MW-19 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	13	5.0		µg/L	5	3/24/2020 4:13:13 AM	R67514
Toluene	ND	5.0		µg/L	5	3/24/2020 4:13:13 AM	R67514
Ethylbenzene	3.0	2.5		µg/L	5	3/24/2020 4:13:13 AM	R67514
Xylenes, Total	11	7.5		µg/L	5	3/24/2020 4:13:13 AM	R67514
Surr: 1,2-Dichloroethane-d4	89.2	70-130	%Rec		5	3/24/2020 4:13:13 AM	R67514
Surr: 4-Bromofluorobenzene	108	70-130	%Rec		5	3/24/2020 4:13:13 AM	R67514
Surr: Dibromofluoromethane	98.4	70-130	%Rec		5	3/24/2020 4:13:13 AM	R67514
Surr: Toluene-d8	99.0	70-130	%Rec		5	3/24/2020 4:13:13 AM	R67514

Lab ID: 2003893-010 **Collection Date:** 3/18/2020 12:42:00 PM

Client Sample ID: MW-20 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0	P	µg/L	1	3/24/2020 4:41:51 AM	R67514
Toluene	ND	1.0	P	µg/L	1	3/24/2020 4:41:51 AM	R67514
Ethylbenzene	ND	1.0	P	µg/L	1	3/24/2020 4:41:51 AM	R67514
Xylenes, Total	ND	1.5	P	µg/L	1	3/24/2020 4:41:51 AM	R67514
Surr: 1,2-Dichloroethane-d4	90.0	70-130	P	%Rec	1	3/24/2020 4:41:51 AM	R67514
Surr: 4-Bromofluorobenzene	95.4	70-130	P	%Rec	1	3/24/2020 4:41:51 AM	R67514
Surr: Dibromofluoromethane	98.3	70-130	P	%Rec	1	3/24/2020 4:41:51 AM	R67514
Surr: Toluene-d8	98.4	70-130	P	%Rec	1	3/24/2020 4:41:51 AM	R67514

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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

WO#: 2003893

26-Mar-20

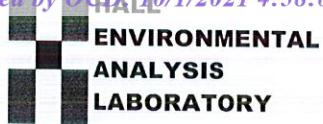
Client: Harvest
Project: Dogie CS

Sample ID: 100ng btex lcs		SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List						
Client ID: LCSW		Batch ID: R67514		RunNo: 67514						
Prep Date:		Analysis Date: 3/23/2020		SeqNo: 2330424		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.8	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Ethylbenzene	21	1.0	20.00	0	105	70	130			
Xylenes, Total	63	1.5	60.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.1	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.3	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID: mb		SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List						
Client ID: PBW		Batch ID: R67514		RunNo: 67514						
Prep Date:		Analysis Date: 3/23/2020		SeqNo: 2330442		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	8.5		10.00		85.2	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.3	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.8	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

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Sample Log-In Check List

Client Name: Harvest

Work Order Number: 2003893

RcptNo: 1

Received By: Yazmine Garduno 3/19/2020 8:00:00 AM *Yazmine Garduno*Completed By: Juan Rojas 3/19/2020 11:11:01 AM *Juan Rojas*Reviewed By: JO 3/19/2020 *JO***Chain of Custody**

1. Is Chain of Custody sufficiently 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° 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: <i>JO 3/19/20</i>

Special Handling (if applicable)

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

Person Notified:	Date:
By Whom:	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	
Client Instructions:	

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good				

Chain-of-Custody Record

Chain-of-Custody Record						
Client: Harvest Four Corners			Turn-Around Time:			
Kijun Hong			<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush		
Mailing Address: 1755 Arroyo Dr Bloomfield, NM			Project Name: Dogie CS			
Phone #:			Project Manager: Brooke Herb			
email or Fax#: khong@harvestmidstream.com			Sampler: E. Carroll			
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other			# of Coolers: 1			
<input checked="" type="checkbox"/> EDD (Type)			Cooler Temp (including CF): 23-03-23			
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
3/18/20	1015	Gw	Mw-10	3VOA	HCl or HgCl	2003893
1029			Mw-11			-001
1105			Mw-12			-002
1005			Mw-13			-003
1000			Mw-14			-004
1145			Mw-15			-005
1103			Mw-16			-006
1040			Mw-17			-007
1141			Mw-19			-008
1342			Mw-20			-009
						-010
Date: 3/18	Time: 1505	Relinquished by: Eric Carroll	Received by: Brooke Herb	Date: 3/18/20	Time: 1505	
Date: 3/18/20	Time: 1910	Relinquished by: Christopher Williams	Received by: Brooke Herb	Date: 3/18/20	Time: 0800	

Released to Imaging: 1/3/2022 10:44:43 AM



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

September 30, 2020

Kijun Hong
Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL: (505) 632-4475
FAX

RE: Dogie CS

OrderNo.: 2009D41

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 11 sample(s) on 9/23/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-001

Matrix: GROUNDWA

Client Sample ID: MW10
Collection Date: 9/22/2020 11:58:00 AM
Received Date: 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	9/27/2020 4:17:47 AM	C72174
Toluene	ND	1.0		µg/L	1	9/27/2020 4:17:47 AM	C72174
Ethylbenzene	ND	1.0		µg/L	1	9/27/2020 4:17:47 AM	C72174
Xylenes, Total	ND	1.5		µg/L	1	9/27/2020 4:17:47 AM	C72174
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	9/27/2020 4:17:47 AM	C72174
Surr: Dibromofluoromethane	111	70-130		%Rec	1	9/27/2020 4:17:47 AM	C72174
Surr: Toluene-d8	105	70-130		%Rec	1	9/27/2020 4:17:47 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-002

Client Sample ID: MW17
Collection Date: 9/22/2020 12:55:00 PM
Matrix: GROUNDWA **Received Date:** 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0	P	µg/L	1	9/27/2020 4:46:22 AM	C72174
Toluene	ND	1.0	P	µg/L	1	9/27/2020 4:46:22 AM	C72174
Ethylbenzene	ND	1.0	P	µg/L	1	9/27/2020 4:46:22 AM	C72174
Xylenes, Total	ND	1.5	P	µg/L	1	9/27/2020 4:46:22 AM	C72174
Surr: 1,2-Dichloroethane-d4	102	70-130	P	%Rec	1	9/27/2020 4:46:22 AM	C72174
Surr: Dibromofluoromethane	114	70-130	P	%Rec	1	9/27/2020 4:46:22 AM	C72174
Surr: Toluene-d8	101	70-130	P	%Rec	1	9/27/2020 4:46:22 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-003

Client Sample ID: MW12
Collection Date: 9/22/2020 12:40:00 PM
Matrix: GROUNDWA **Received Date:** 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	170	5.0		µg/L	5	9/27/2020 5:14:59 AM	C72174
Toluene	5.6	5.0		µg/L	5	9/27/2020 5:14:59 AM	C72174
Ethylbenzene	ND	5.0		µg/L	5	9/27/2020 5:14:59 AM	C72174
Xylenes, Total	ND	7.5		µg/L	5	9/27/2020 5:14:59 AM	C72174
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%Rec	5	9/27/2020 5:14:59 AM	C72174
Surr: Dibromofluoromethane	108	70-130		%Rec	5	9/27/2020 5:14:59 AM	C72174
Surr: Toluene-d8	103	70-130		%Rec	5	9/27/2020 5:14:59 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2009D41

Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-004

Matrix: GROUNDWA**Client Sample ID:** MW13**Collection Date:** 9/22/2020 11:32:00 AM
Received Date: 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0	P	µg/L	1	9/27/2020 5:43:39 AM	C72174
Toluene	ND	1.0	P	µg/L	1	9/27/2020 5:43:39 AM	C72174
Ethylbenzene	ND	1.0	P	µg/L	1	9/27/2020 5:43:39 AM	C72174
Xylenes, Total	ND	1.5	P	µg/L	1	9/27/2020 5:43:39 AM	C72174
Surr: 1,2-Dichloroethane-d4	99.4	70-130	P	%Rec	1	9/27/2020 5:43:39 AM	C72174
Surr: Dibromofluoromethane	111	70-130	P	%Rec	1	9/27/2020 5:43:39 AM	C72174
Surr: Toluene-d8	99.6	70-130	P	%Rec	1	9/27/2020 5:43:39 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-005

Matrix: GROUNDWA

Client Sample ID: MW14
Collection Date: 9/22/2020 11:40:00 AM
Received Date: 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	9/27/2020 6:12:09 AM	C72174
Toluene	ND	1.0		µg/L	1	9/27/2020 6:12:09 AM	C72174
Ethylbenzene	ND	1.0		µg/L	1	9/27/2020 6:12:09 AM	C72174
Xylenes, Total	ND	1.5		µg/L	1	9/27/2020 6:12:09 AM	C72174
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%Rec	1	9/27/2020 6:12:09 AM	C72174
Surr: Dibromofluoromethane	112	70-130		%Rec	1	9/27/2020 6:12:09 AM	C72174
Surr: Toluene-d8	106	70-130		%Rec	1	9/27/2020 6:12:09 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2009D41

Date Reported: 9/30/2020

CLIENT: Harvest**Client Sample ID:** MW15**Project:** Dogie CS**Collection Date:** 9/22/2020 12:30:00 PM**Lab ID:** 2009D41-006**Matrix:** GROUNDWA**Received Date:** 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	1.8	1.0	D	µg/L	2	9/27/2020 6:40:45 AM	C72174
Toluene	ND	2.0	D	µg/L	2	9/27/2020 6:40:45 AM	C72174
Ethylbenzene	ND	2.0	D	µg/L	2	9/27/2020 6:40:45 AM	C72174
Xylenes, Total	ND	3.0	D	µg/L	2	9/27/2020 6:40:45 AM	C72174
Surr: 1,2-Dichloroethane-d4	96.3	70-130	D	%Rec	2	9/27/2020 6:40:45 AM	C72174
Surr: Dibromofluoromethane	112	70-130	D	%Rec	2	9/27/2020 6:40:45 AM	C72174
Surr: Toluene-d8	102	70-130	D	%Rec	2	9/27/2020 6:40:45 AM	C72174

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 PQL Practical Quantitative Limit
 S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-007

Matrix: GROUNDWA

Client Sample ID: MW16
Collection Date: 9/22/2020 12:55:00 PM
Received Date: 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	9/27/2020 7:09:20 AM	C72174
Toluene	ND	1.0		µg/L	1	9/27/2020 7:09:20 AM	C72174
Ethylbenzene	ND	1.0		µg/L	1	9/27/2020 7:09:20 AM	C72174
Xylenes, Total	ND	1.5		µg/L	1	9/27/2020 7:09:20 AM	C72174
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	9/27/2020 7:09:20 AM	C72174
Surr: Dibromofluoromethane	103	70-130		%Rec	1	9/27/2020 7:09:20 AM	C72174
Surr: Toluene-d8	102	70-130		%Rec	1	9/27/2020 7:09:20 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2009D41

Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-008

Matrix: GROUNDWA **Received Date:** 9/23/2020 8:00:00 AM

Client Sample ID: MW11**Collection Date:** 9/22/2020 1:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0	P	µg/L	1	9/27/2020 7:37:56 AM	C72174
Toluene	ND	1.0	P	µg/L	1	9/27/2020 7:37:56 AM	C72174
Ethylbenzene	ND	1.0	P	µg/L	1	9/27/2020 7:37:56 AM	C72174
Xylenes, Total	ND	1.5	P	µg/L	1	9/27/2020 7:37:56 AM	C72174
Surr: 1,2-Dichloroethane-d4	99.0	70-130	P	%Rec	1	9/27/2020 7:37:56 AM	C72174
Surr: Dibromofluoromethane	108	70-130	P	%Rec	1	9/27/2020 7:37:56 AM	C72174
Surr: Toluene-d8	104	70-130	P	%Rec	1	9/27/2020 7:37:56 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2009D41
Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-009

Matrix: GROUNDWA

Client Sample ID: MW18
Collection Date: 9/22/2020 12:00:00 PM
Received Date: 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	1.0		µg/L	1	9/27/2020 8:06:32 AM	C72174
Toluene	ND	1.0		µg/L	1	9/27/2020 8:06:32 AM	C72174
Ethylbenzene	ND	1.0		µg/L	1	9/27/2020 8:06:32 AM	C72174
Xylenes, Total	ND	1.5		µg/L	1	9/27/2020 8:06:32 AM	C72174
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	9/27/2020 8:06:32 AM	C72174
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/27/2020 8:06:32 AM	C72174
Surr: Toluene-d8	101	70-130		%Rec	1	9/27/2020 8:06:32 AM	C72174

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2009D41

Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-010

Client Sample ID: MW19
Collection Date: 9/22/2020 12:16:00 PM
Matrix: GROUNDWA **Received Date:** 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	17	1.0	P	µg/L	1	9/27/2020 12:19:20 PM	R72182
Toluene	ND	1.0	P	µg/L	1	9/27/2020 12:19:20 PM	R72182
Ethylbenzene	4.7	1.0	P	µg/L	1	9/27/2020 12:19:20 PM	R72182
Xylenes, Total	11	1.5	P	µg/L	1	9/27/2020 12:19:20 PM	R72182
Surr: 1,2-Dichloroethane-d4	97.4	70-130	P	%Rec	1	9/27/2020 12:19:20 PM	R72182
Surr: Dibromofluoromethane	106	70-130	P	%Rec	1	9/27/2020 12:19:20 PM	R72182
Surr: Toluene-d8	106	70-130	P	%Rec	1	9/27/2020 12:19:20 PM	R72182

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2009D41

Date Reported: 9/30/2020

CLIENT: Harvest
Project: Dogie CS
Lab ID: 2009D41-011

Client Sample ID: MW20
Collection Date: 9/22/2020 2:43:00 PM
Matrix: GROUNDWA **Received Date:** 9/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							
Benzene	ND	2.0	D	µg/L	2	9/27/2020 1:44:43 PM	R72182
Toluene	ND	2.0	D	µg/L	2	9/27/2020 1:44:43 PM	R72182
Ethylbenzene	ND	2.0	D	µg/L	2	9/27/2020 1:44:43 PM	R72182
Xylenes, Total	ND	3.0	D	µg/L	2	9/27/2020 1:44:43 PM	R72182
Surr: 1,2-Dichloroethane-d4	94.7	70-130	D	%Rec	2	9/27/2020 1:44:43 PM	R72182
Surr: Dibromofluoromethane	103	70-130	D	%Rec	2	9/27/2020 1:44:43 PM	R72182
Surr: Toluene-d8	98.8	70-130	D	%Rec	2	9/27/2020 1:44:43 PM	R72182

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

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

WO#: 2009D41

30-Sep-20

Client: Harvest
Project: Dogie CS

Sample ID: mb2	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: C72174	RunNo: 72174								
Prep Date:	Analysis Date: 9/26/2020	SeqNo: 2530229 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								
Sur: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130			
Sur: 4-Bromofluorobenzene	11		10.00		109	70	130			
Sur: Dibromofluoromethane	11		10.00		108	70	130			
Sur: Toluene-d8	11		10.00		109	70	130			

Sample ID: 100ng lcs2	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: C72174	RunNo: 72174								
Prep Date:	Analysis Date: 9/26/2020	SeqNo: 2530230 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	87.8	70	130			
Toluene	19	1.0	20.00	0	93.8	70	130			
Sur: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130			
Sur: 4-Bromofluorobenzene	10		10.00		102	70	130			
Sur: Dibromofluoromethane	11		10.00		106	70	130			
Sur: Toluene-d8	10		10.00		101	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: R72182	RunNo: 72182								
Prep Date:	Analysis Date: 9/27/2020	SeqNo: 2530705 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.9	70	130			
Toluene	20	1.0	20.00	0	97.6	70	130			
Sur: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Sur: 4-Bromofluorobenzene	10		10.00		101	70	130			
Sur: Dibromofluoromethane	11		10.00		105	70	130			
Sur: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: R72182	RunNo: 72182								
Prep Date:	Analysis Date: 9/27/2020	SeqNo: 2530706 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	Value above quantitation range						
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits						
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range						
PQL	Practical Quantitative Limit	RL	Reporting Limit						
S	% Recovery outside of range due to dilution or matrix								

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

WO#: 2009D41

30-Sep-20

Client: Harvest
Project: Dogie CS

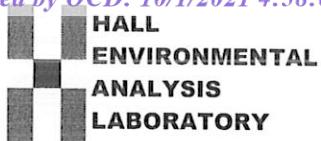
Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: R72182	RunNo: 72182								
Prep Date:	Analysis Date: 9/27/2020	SeqNo: 2530706 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6	10.00		96.5	70	130				
Surr: 4-Bromofluorobenzene	10	10.00		99.6	70	130				
Surr: Dibromofluoromethane	11	10.00		106	70	130				
Surr: Toluene-d8	10	10.00		102	70	130				

Sample ID: 2009d41-010a ms	SampType: MS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW19	Batch ID: R72182	RunNo: 72182								
Prep Date:	Analysis Date: 9/27/2020	SeqNo: 2530710 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	1.0	20.00	17.34	97.8	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	11	10.00		106	70	130				
Surr: 4-Bromofluorobenzene	14	10.00		136	70	130				S
Surr: Dibromofluoromethane	11	10.00		107	70	130				
Surr: Toluene-d8	9.8	10.00		97.6	70	130				

Sample ID: 2009d41-010a msd	SampType: MSD	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW19	Batch ID: R72182	RunNo: 72182								
Prep Date:	Analysis Date: 9/27/2020	SeqNo: 2530711 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	36	1.0	20.00	17.34	92.0	70	130	3.17	20	
Toluene	21	1.0	20.00	0	104	70	130	0.328	20	
Surr: 1,2-Dichloroethane-d4	10	10.00		103	70	130	0	0		
Surr: 4-Bromofluorobenzene	14	10.00		138	70	130	0	0		S
Surr: Dibromofluoromethane	11	10.00		107	70	130	0	0		
Surr: Toluene-d8	10	10.00		102	70	130	0	0		

Qualifiers:									
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank						
D	Sample Diluted Due to Matrix	E	Value above quantitation range						
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits						
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range						
PQL	Practical Quantitative Limit	RL	Reporting Limit						
S	% Recovery outside of range due to dilution or matrix								

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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: 2009D41

RcptNo: 1

Received By: Cheyenne Cason 9/23/2020 8:00:00 AM

Completed By: Isaiah Ortiz 9/23/2020 8:17:15 AM

Reviewed By: Cheyenne Cason 9/23/2020

In Or

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° 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: JRC 9/23/20

Special Handling (if applicable)

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

Person Notified:	Date:
By Whom:	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	
Client Instructions:	

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good	Yes			

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 53574

CONDITIONS

Operator: Harvest Four Corners, LLC 1111 Travis Street Houston, TX 77002	OGRID: 373888
	Action Number: 53574
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of the 2020 Annual Groundwater Report: Content satisfactory 1. Continue with future work stated within 2020 Annual Groundwater Report 2. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022	1/3/2022