Review of 2020 Annual Groundwater Report: Content satisfactory

1. Continue the removal of NAPL and dissolved phase constituents from site wells
2. Continue quarterly groundwater monitoring and sampling
3. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022

Hilcorp

March 11, 2021

Mr. Cory Smith
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

RE: 2020 Annual Groundwater Report
Hilcorp Energy Company
State Com J 6 – 3RP-468
Incident #nJK1326741691
San Juan County, New Mexico

Dear Mr. Smith:

Hilcorp Energy Company (Hilcorp) presents the following annual report discussing ground water monitoring activities conducted at the State Com J 6 natural gas well site (Site) during 2020. Ground water was impacted by a pipeline release in the Pump Canyon Wash (wash). Hilcorp acquired the Site from ConocoPhillips in April 2017 which has eight monitoring wells.

The site consists of a natural gas well and associated equipment. The Site is located on land controlled by the New Mexico State Land Office within Section 36, Township 31N, Range 9W in San Juan County, NM (Figure 1). A detailed Site map is provided as Figure 2. A full history of this site can be found in the annual reports previously submitted.

Groundwater Monitoring Methodology

Prior to the collection of groundwater samples, depth to groundwater in each Site well was measured using a water level meter. The NAPL thickness in recovery wells RW-1 through RW-4 was not measured, however, the presence of NAPL was noted during the third and fourth quarterly events. Pig absorbent socks were installed periodically in the recovery wells to recover NAPL. Hilcorp reported recovering 35 and 16 ounces from RW-1 in July and October, 11 ounces from RW-2 in October, 78 and 70 ounces from RW-3 in July and October, and 4 and 70 ounces from RW-4 in July and October, monitoring events, respectively. Fluid levels and groundwater elevations are detailed in Table 1.

Groundwater potentiometric surface maps detailing groundwater elevations and groundwater flow direction using data collected during the 2020 monitoring events are presented as Figure 3, 4, 5, and 6. Groundwater elevations for the recovery wells were not corrected for the presence of NAPL and this data was not used in contouring. Groundwater flow is to the southwest, consistent with historical monitoring data.

Site wells were purged of up to three casing volumes of groundwater using a 1.5 inch diameter, polyethylene bailer prior to sampling. Groundwater quality parameters including pH, temperature, conductivity and oxidation reduction potential were collected and are summarized in Table 2. Following collection, groundwater samples were labeled, placed on ice, and submitted to PACE Analytical for analysis of BTEX by EPA Method 8260 and for naphthalenes by either EPA 8260 or 8270.

PO Box 61229, Houston, TX 77208-1229 1111 Travis Street, Houston, TX 77002
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Results

NMWQCC regulates groundwater quality in New Mexico under Title 20, Chapter 6, Part 2 Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). BTEX was undetected in groundwater of MW-1, MW-2, and MW-3 during all 2020 sampling events. NAPL and dissolved phase BTEX impacts remain present in the Site recovery wells. A summary of laboratory results is included as Table 3 and depicted on Figure 7. Laboratory analytical reports for the 2020 groundwater sampling events are included in Appendix A. Groundwater concentrations above NMWQCC standards during 2020 groundwater sampling events are discussed below.

March 2020

Benzene concentrations were above NMWQCC standards in RW-1, RW-3, and RW-4 at 0.151mg/L, 0.414mg/L, and 0.152 mg/L, respectively

Ethylbenzene concentrations were present in all Recovery Wells but below the NMWQCC standards

Xylene concentrations were above NMWQCC standards in RW-1-4 at 6.77mg/L, 0.7340 mg/L, 6.76 mg/L and 5.74 mg/L, respectively

Naphthaleneses concentrations were above NMWQCC standards in RW-1, RW-3, and RW-4 at 0.291, 0.395, and 0.385, respectively

June 2020

Benzene concentrations were above NMWQCC standards in RW-1 and RW-3 at 0.156 mg/L and 0.703 mg/L, respectively

Ethylbenzene concentrations were above NMWQCC standards in RW-3 at 2.49 mg/L

Xylenes concentrations were above NMWQCC standards in RW-1 and RW-3 at 8.73 mg/L and 35.70 mg/L, respectively

No sample was taken from RW-4 for June 2020 due to PSH being present

July 2020

Ethylbenzene and Xylene were present in RW-2 but were below the NMWQCC standards

No samples were taken from RW-1, RW-3, or RW-4 for July 2020 due to PSH being present

October 2020

Benzene concentrations were above NMWQCC standards in RW-1, RW-3, and RW-4 at 0.121 mg/L, 1.28 mg/L and 0.286 mg/L, respectively

Ethylbenzene concentrations were above NMWQCC standards in RW-1 and RW-4 at 1.07 mg/L and 3.66 mg/L, respectively

Xylenes concentrations were above NMWQCC standards in RW-1, RW-3, and RW-4 at 18.10 mg/L, 7.09 mg/L, and 4.88 mg/L, respectively

Naphthaleneses concentrations were above NMWQCC standards in RW-1 and RW-4 at 0.956 and 3.050, respectively

Conclusions/Recommendations

Dissolved phase concentrations of BTEX and naphthalenes in MW-1, MW-2, and MW-3 continue to be present at levels below the NMWQCC standards for these constituents. The benzene concentrations in MW-1 has been below the standard for 14 consecutive quarters. Concentrations of NAPL and dissolved phase BTEX continue to be detected in recovery wells (RW-1 through RW-4).

Hilcorp

The continuation of the removal of NAPL and dissolved phase constituents from Site wells is recommended and is necessary for Site closure in accordance with 20.6.2 NMAC. NAPL removal can be achieved by additional EFR events, hand bailing, or, at a minimum, the continued use of absorbent socks. The continuation of quarterly groundwater monitoring is also recommended.

If you have any questions or comments regarding this report, do not hesitate to contact me at (505) 324-5128 or by email Jdeal@hilcorp.com.

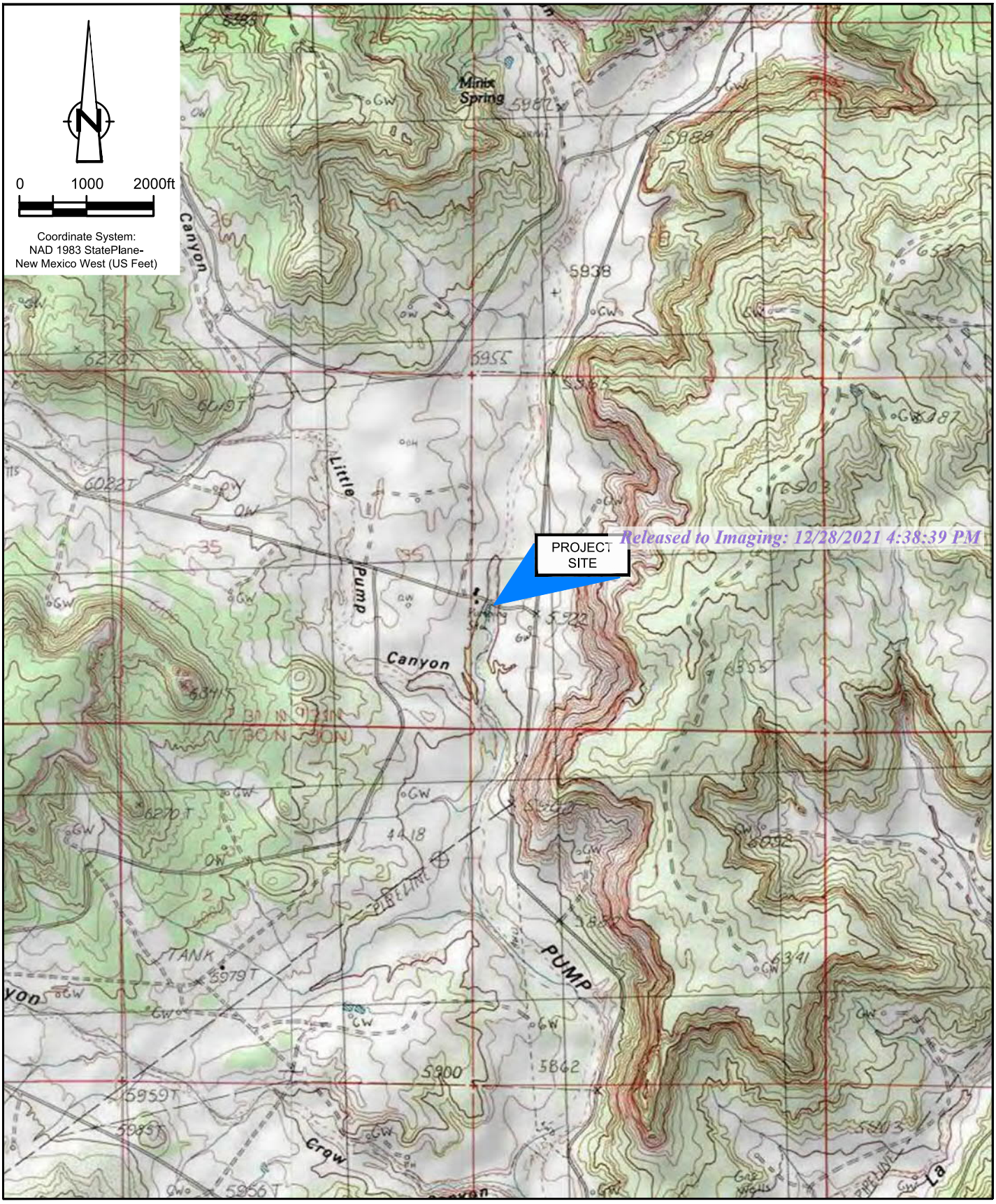
Kind Regards,

Jennifer Deal

Jennifer Deal
Environmental Specialist
Hilcorp Energy Company – L48 West

Attachments:

- Figures 1-7
- Table 1 – Groundwater Elevations
- Table 2 – Field Parameter Results
- Table 3 – Groundwater Analytical Results
- Attachment 1 – Groundwater Analytical Reports



Source: USGS 7.5 Minute Quad "Archuleta and Turley, New Mexico"

Lat/Long: 36.8524° North, 107.7401° West

HILCORP ENERGY COMPANY
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
STATE COM J6

11207532-00

Feb 29, 2020

SITE LOCATION MAP

FIGURE 1

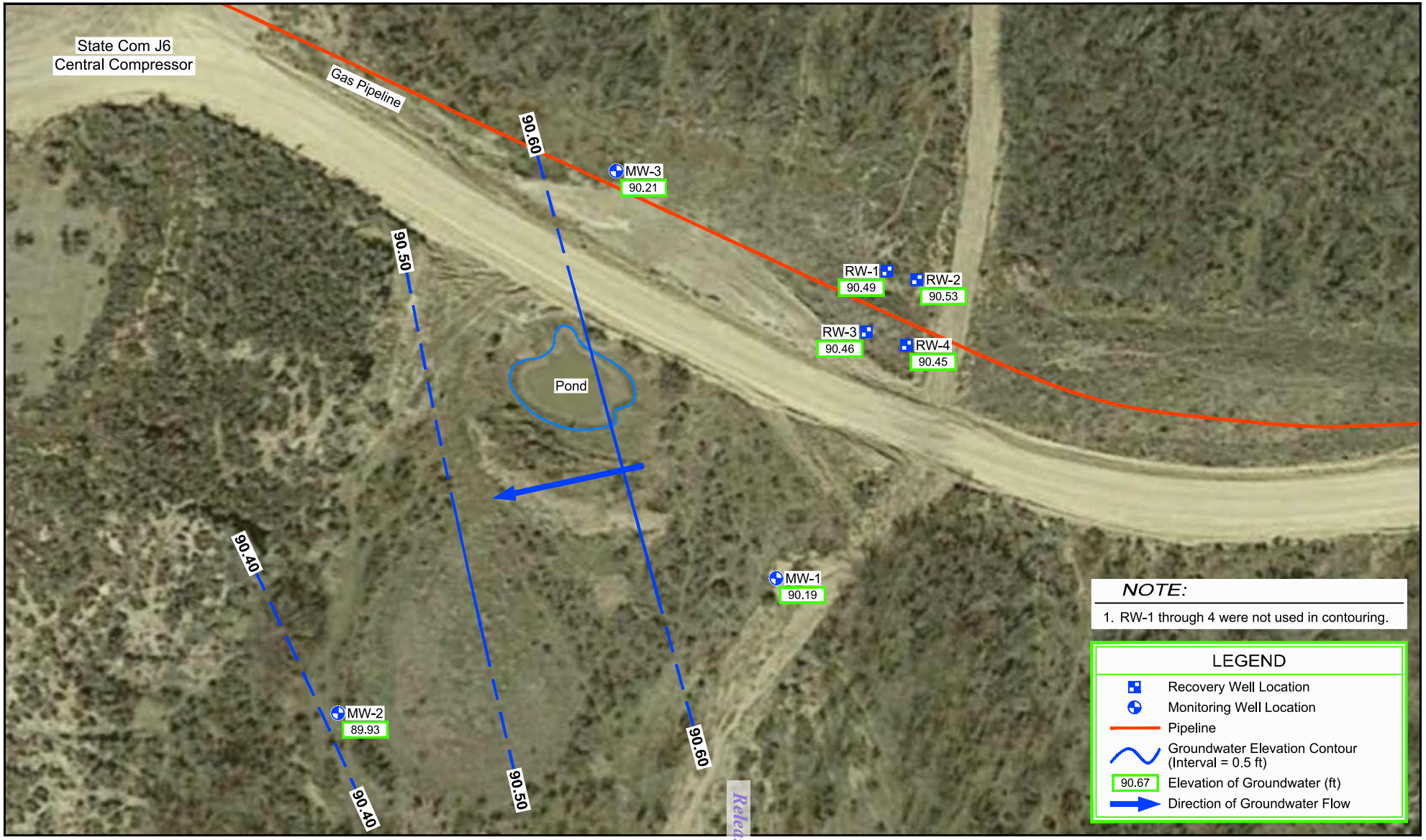
Source: Image © 2016 Google - Image Date: March 16, 2016

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

LEGEND

Recovery Well Location
Monitoring Well Location
Pipeline



Source: Image © 2016 Google - Image Date: March 16, 2016

Lat/Long: 36.8524° North, 107.7401° West

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

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STATE COM J6

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MARCH 2020

11207532-00

Mar 11, 2021

FIGURE 3

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Source: Image © 2016 Google - Image Date: March 16, 2016

Lat/Long: 36.8524° North, 107.7401° West

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

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STATE COM J6

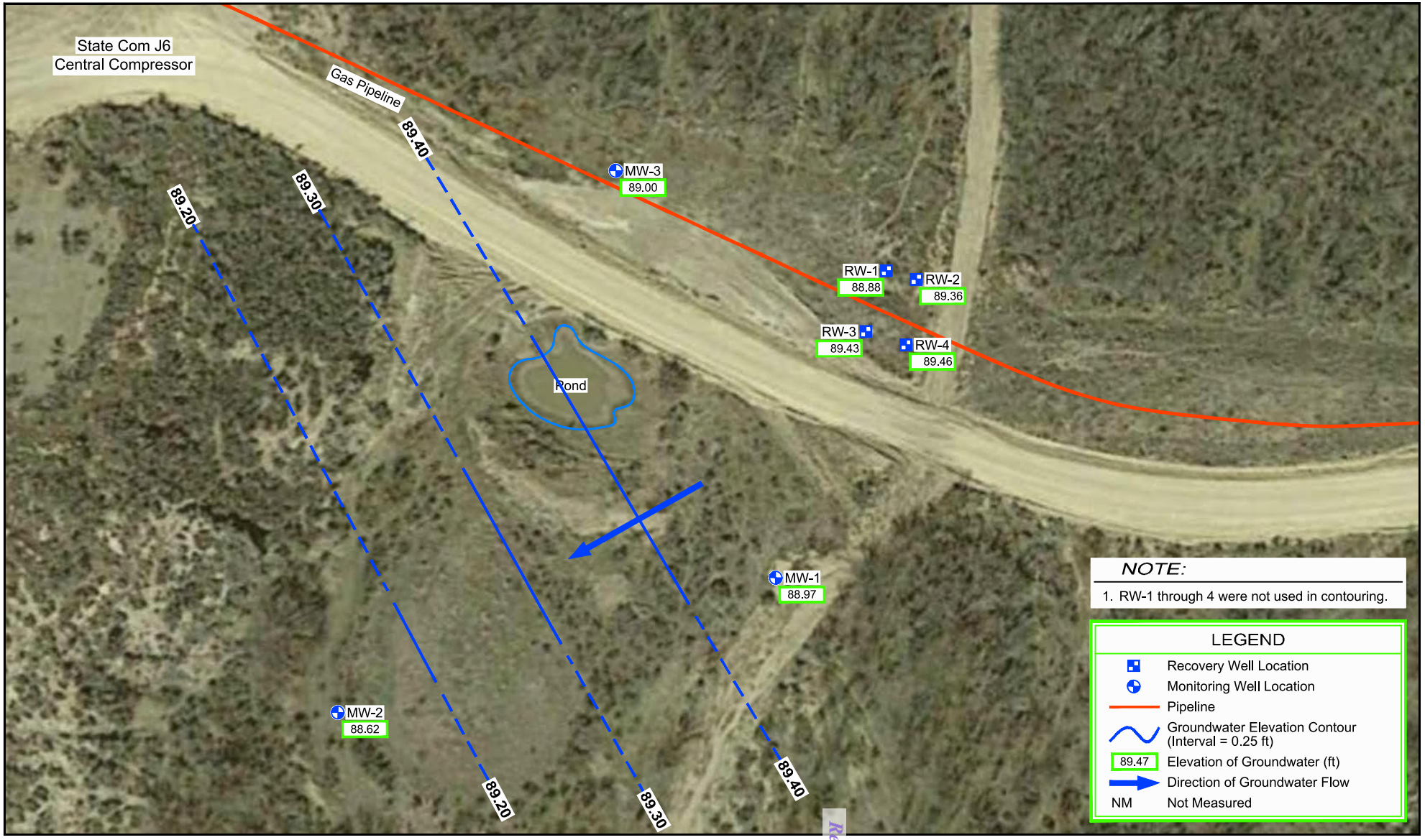
GROUNDWATER POTENTIOMETRIC SURFACE MAP

June 2020

11207532-00

Mar 11, 2021

FIGURE 4



Source: Image © 2016 Google - Image Date: March 16, 2016

Lat/Long: 36.8524° North, 107.7401° West

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

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STATE COM J6

GROUNDWATER POTENTIOMETRIC SURFACE MAP

July 2020

11207532-00

Mar 11, 2021

FIGURE 5

Source: Image © 2016 Google - Image Date: March 16, 2016

Lat/Long: 36.8524° North, 107.7401° West

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

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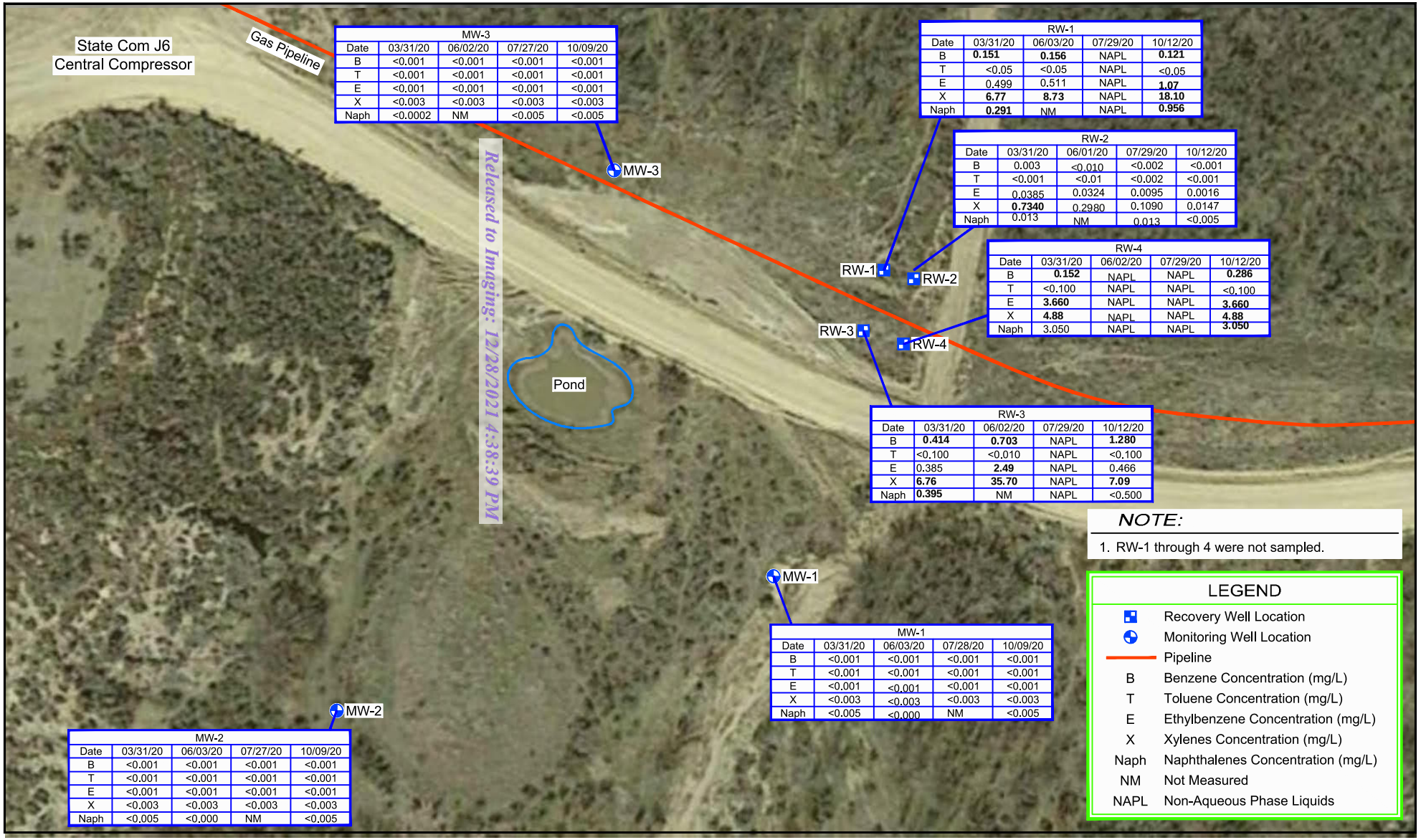
STATE COM J6

GROUNDWATER POTENTIOMETRIC SURFACE MAP - OCTOBER 2020

11207532-00

Mar 11, 2021

FIGURE 6



MW-3				
Date	03/31/20	06/02/20	07/27/20	10/09/20
B	<0.001	<0.001	<0.001	<0.001
T	<0.001	<0.001	<0.001	<0.001
E	<0.001	<0.001	<0.001	<0.001
X	<0.003	<0.003	<0.003	<0.003
Naph	<0.0002	NM	<0.005	<0.005

RW-1				
Date	03/31/20	06/03/20	07/29/20	10/12/20
B	**0.151**	**0.156**	NAPL	**0.121**
T	<0.05	<0.05	NAPL	<0.05
E	0.499	0.511	NAPL	**1.07**
X	**6.77**	**8.73**	NAPL	**18.10**
Naph	**0.291**	NM	NAPL	**0.956**

RW-2				
Date	03/31/20	06/01/20	07/29/20	10/12/20
B	0.003	<0.010	<0.002	<0.001
T	<0.001	<0.01	<0.002	<0.001
E	0.0385	0.0324	0.0095	0.0016
X	**0.7340**	0.2980	0.1090	0.0147
Naph	0.013	NM	0.013	<0.005

RW-4				
Date	03/31/20	06/02/20	07/29/20	10/12/20
B	**0.152**	NAPL	NAPL	**0.286**
T	<0.100	NAPL	NAPL	<0.100
E	**3.660**	NAPL	NAPL	**3.660**
X	**4.88**	NAPL	NAPL	**4.88**
Naph	3.050	NAPL	NAPL	**3.050**

RW-3				
Date	03/31/20	06/02/20	07/29/20	10/12/20
B	**0.414**	**0.703**	NAPL	**1.280**
T	<0.100	<0.010	NAPL	<0.100
E	0.385	**2.49**	NAPL	0.466
X	**6.76**	**35.70**	NAPL	**7.09**
Naph	**0.395**	NM	NAPL	<0.500

MW-1				
Date	03/31/20	06/03/20	07/28/20	10/09/20
B	<0.001	<0.001	<0.001	<0.001
T	<0.001	<0.001	<0.001	<0.001
E	<0.001	<0.001	<0.001	<0.001
X	<0.003	<0.003	<0.003	<0.003
Naph	<0.005	<0.000	NM	<0.005

MW-2				
Date	03/31/20	06/03/20	07/27/20	10/09/20
B	<0.001	<0.001	<0.001	<0.001
T	<0.001	<0.001	<0.001	<0.001
E	<0.001	<0.001	<0.001	<0.001
X	<0.003	<0.003	<0.003	<0.003
Naph	<0.005	<0.000	NM	<0.005

NOTE:

1. RW-1 through 4 were not sampled.

LEGEND

- Recovery Well Location
- Monitoring Well Location
- Pipeline
- B — Benzene Concentration (mg/L)
- T — Toluene Concentration (mg/L)
- E — Ethylbenzene Concentration (mg/L)
- X — Xylenes Concentration (mg/L)
- Naph — Naphthalenes Concentration (mg/L)
- NM — Not Measured
- NAPL — Non-Aqueous Phase Liquids

Source: Image © 2016 Google - Image Date: March 16, 2016

Lat/Long: 36.8524° North, 107.7401° West

0 20 50ft

Coordinate System:
NAD 1983 StatePlane-
New Mexico West (US Feet)

HILCORP ENERGY COMPANY
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
STATE COM J6

11207532-00

Mar 11, 2021

2020 GROUNDWATER CONCENTRATION MAP

FIGURE 7

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TABLE 1
WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS

STATE COM J #6
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
MW-1	100.00	5/12/2014	--	7.98	--	92.02
		5/20/2014	--	8.14	--	91.86
		5/27/2014	--	8.10	--	91.90
		12/17/2014	--	8.53	--	91.47
		4/21/2015	--	8.20	--	91.80
		5/14/2015	--	8.18	--	91.82
		9/22/2015	--	8.43	--	91.57
		12/2/2015	--	8.29	--	91.71
		3/30/2016	--	7.92	--	92.08
		9/8/2016	--	9.55	--	90.45
		12/1/2016	--	8.96	--	91.04
		3/9/2017	--	8.09	--	91.91
		6/15/2017	--	8.54	--	91.46
		9/27/2017	--	9.97	--	90.03
		12/6/2017	--	9.25	--	90.75
		3/15/2018	--	8.91	--	91.09
		6/27/2018	--	9.78	--	90.22
		9/5/2018	--	10.43	--	89.57
		12/20/2018	--	9.97	--	90.03
		3/9/2019	--	9.33	--	90.67
		5/29/2019	--	8.82	--	91.18
		8/21/2019	--	10.53	--	89.47
		11/21/2019	--	10.41	--	89.59
		3/28/2020	--	9.81	--	90.19
		6/3/2020	--	10.09	--	89.91
		7/28/2020	--	11.03	--	88.97
		10/9/2020	--	11.46	--	88.54

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
MW-2	99.36	12/1/2016	--	8.57	--	90.79
		3/9/2017	--	7.73	--	91.63
		6/15/2017	--	8.27	--	91.09
		9/27/2017	--	9.70	--	89.66
		12/6/2017	--	8.90	--	90.46
		3/15/2018	--	8.54	--	90.82
		6/27/2018	--	9.49	--	89.87
		9/5/2018	--	10.17	--	89.19
		12/20/2018	--	9.59	--	89.77
		3/9/2019	--	8.95	--	90.41
		5/29/2019	--	8.46	--	90.90
		8/21/2019	--	10.24	--	89.12
		11/21/2019	--	10.05	--	89.31
		3/27/2020	--	9.43	--	89.93
		6/3/2020	--	10.09	--	89.27
		7/27/2020	--	10.74	--	88.62
		10/9/2020	--	11.15	--	88.21
MW-3	99.59	12/1/2016	--	8.51	--	91.08
		3/9/2017	--	7.64	--	91.95
		6/15/2017	--	8.05	--	91.54
		9/27/2017	--	9.51	--	90.08
		12/6/2017	--	8.80	--	90.79
		3/15/2018	--	8.47	--	91.12
		6/27/2018	--	9.31	--	90.28
		9/5/2018	--	9.99	--	89.60
		12/20/2018	--	9.51	--	90.08
		3/9/2019	--	8.95	--	90.64
		5/29/2019	--	8.36	--	91.23
		8/21/2019	--	10.07	--	89.52
		11/20/2019	--	9.98	--	89.61
		3/27/2020	--	9.38	--	90.21
		6/2/2020	--	9.63	--	89.96
		7/27/2020	--	10.59	--	89.00
		10/9/2020	--	11.03	--	88.56

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
RW-1	100.3	5/12/2014	--	7.80	--	92.50
		5/20/2014	--	7.85	--	92.45
		5/27/2014	7.89	7.90	0.01	92.41
		12/17/2014	8.33	8.72	0.39	91.89
		5/14/2015	--	7.99	--	92.31
		6/17/2015	7.96	7.98	0.02	92.34
		9/22/2015	8.57	8.72	0.15	91.70
		12/2/2015	8.17	8.19	0.02	92.13
		9/14/2016	9.11	10.10	0.99	90.99
		12/1/2016	--	--	--	Dry
		3/9/2017	--	8.01	--	92.29
		6/15/2017	8.35	8.50	0.15	91.92
		9/27/2017	9.60	10.82	1.22	90.46
		12/6/2017	9.09	9.59	0.50	91.11
		3/15/2018	8.83	8.98	0.15	91.44
		6/27/2018	9.52	10.11	0.59	90.66
		9/5/2018	10.18	11.01	0.83	89.95
		1/4/2019	9.77	10.12	0.35	90.46
		3/9/2019	--	9.32	--	90.98
		5/28/2019	--	8.72	--	91.58
		8/21/2019	--	--	--	--
		11/12/2019	--	--	--	--
		3/31/2020	--	9.81	--	90.49
		6/1/2020	--	9.97	--	90.33
		7/29/2020	10.87	11.42	0.55	88.88
		10/9/2020	--	11.36	--	88.94

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
RW-2	99.96	5/12/2014	7.44	7.45	0.01	92.52
		5/20/2014	7.66	7.67	0.01	92.30
		5/27/2014	--	7.56	--	92.40
		12/17/2014	7.98	8.39	0.41	91.90
		5/14/2015	--	7.65	--	92.31
		6/17/2015	--	7.61	--	92.35
		9/22/2015	--	8.25	--	91.71
		12/2/2015	--	7.82	--	92.14
		9/14/2016	8.77	9.68	0.91	91.01
		12/1/2016	8.51	8.65	--	91.31
		3/9/2017	--	7.74	--	92.22
		6/15/2017	--	8.03	--	91.93
		9/27/2017	9.33	10.14	0.81	90.47
		12/6/2017	8.72	9.22	0.50	91.14
		3/15/2018	8.46	8.55	0.09	91.48
		6/27/2017	9.25	9.59	0.34	90.64
		9/5/2018	9.90	10.36	0.46	89.97
		1/4/2019	--	9.51	--	90.45
		3/9/2019	--	8.95	--	91.01
		5/28/2019	--	8.39	--	91.57
		8/21/2019	--	10.08	--	89.88
		11/12/2019	--	10.08	--	89.88
		3/31/2020	--	9.43	--	90.53
		6/1/2020	--	9.66	--	90.30
		7/29/2020	--	10.60	--	89.36
		10/12/2020	--	11.06	--	88.90

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
RW-3	99.84	5/12/2014	--	7.46	--	92.38
		5/20/2014	--	7.66	--	92.18
		5/27/2014	--	7.59	--	92.25
		8/26/2014	8.70	10.43	1.73	90.79
		11/11/2014	8.22	8.64	0.42	91.54
		12/17/2014	7.94	8.55	0.61	91.78
		5/14/2015	7.63	7.63	0.00	92.21
		6/17/2015	7.58	7.76	0.18	92.22
		9/22/2015	8.20	8.45	0.25	91.59
		12/2/2015	7.74	8.11	0.37	92.03
		9/14/2016	8.71	9.94	1.23	90.88
		12/1/2016	8.46	8.98	0.52	91.28
		3/9/2017	7.70	7.73	0.03	92.13
		6/15/2017	--	7.95	--	91.89
		9/27/2017	9.22	10.50	1.28	90.36
		12/6/2017	8.69	9.28	0.59	91.03
		3/15/2018	8.40	8.77	0.37	91.37
		6/27/2018	9.14	9.73	0.59	90.58
		9/5/2018	9.69	10.94	1.25	89.90
		1/4/2019	--	9.39	--	90.45
		3/9/2019	--	8.90	--	90.94
		5/28/2019	--	8.39	--	91.45
		8/21/2019	--	--	--	--
		11/12/2019	--	--	--	--
		3/31/2020	--	9.38	--	90.46
		6/2/2020	--	9.56	--	90.28
		7/29/2020	10.40	10.41	0.01	89.43
		10/12/2020	--	10.67	--	89.17

Well ID	Top of Casing Elevation (1)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Adjusted Groundwater Elevation (2)
RW-4	99.67	5/12/2014	7.29	7.30	0.01	92.38
		5/20/2014	7.26	8.12	0.86	92.24
		5/27/2014	7.22	7.98	0.76	92.30
		8/25/2014	8.47	9.80	1.33	90.93
		11/10/2014	7.94	8.15	0.21	91.69
		12/17/2014	7.84	8.10	0.26	91.78
		4/20/2015	7.36	7.61	0.25	92.26
		5/14/2015	--	7.46	--	92.21
		6/17/2015	7.43	7.48	0.05	92.23
		9/22/2015	8.04	8.17	0.13	91.60
		12/2/2015	7.65	7.70	0.05	92.01
		9/14/2016	8.53	9.75	1.22	90.90
		12/1/2016	8.46	8.66	0.20	91.17
		3/9/2017	7.47	7.54	0.07	92.19
		6/15/2017	--	7.69	--	91.98
		9/27/2017	9.04	10.33	1.29	90.37
		12/6/2017	8.59	8.82	0.23	91.03
		3/15/2018	8.29	8.30	0.01	91.38
		6/27/2018	8.91	9.86	0.95	90.57
		9/5/2018	9.50	10.59	1.09	89.95
		1/4/2019	--	9.19	--	90.48
		3/9/2019	--	8.70	--	90.97
		5/28/2019	--	8.15	--	91.52
		8/21/2019	--	--	--	--
		11/12/2019	--	--	--	--
		3/31/2020	--	9.22	--	90.45
		6/2/2020	--	9.30	--	90.37
		7/29/2020	--	10.21	--	89.46
		10/12/2020	--	10.67	--	89.00

Notes:

(1) - surface elevation based on an arbitrary datum of 100 feet based on top of casing of MW-1

(2) - when PSH is present, groundwater elevation is adjusted using a PSH density correction factor of 0.8

bgs - below ground surface

BTOC - below top of casing

ft = feet

NM = Not measured

PSH - phase separated hydrocarbons

TABLE 2
FIELD PARAMETER RESULTS

STATE COM J #6
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

Well ID	Sample Date	Temperature (°C)	pH	TDS (mg/L)	Conductivity (uS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
MW-1	5/14/2015	11.68	7.52	3,221	4,976	10.88	-205.0	1.50
	5/14/2015	11.32	7.35	3,309	5,096	2.83	-205.0	1.75
	5/14/2015	11.34	7.28	3,341	5,139	1.66	-204.0	2.25
	9/22/2015	16.41	7.01	1,164	1,792	9.11	-117.5	3.00
	9/22/2015	16.42	6.98	1,177	1,811	2.96	-117.6	3.50
	9/22/2015	16.43	6.99	1,152	1,771	2.48	-117.0	4.00
	3/30/2016	10.36	7.48	1,200	1,920	5.62	-104.0	4.25
	9/8/2016	16.10	7.10	877	1,353	1.52	-91.1	3.50
	12/1/2016	12.55	7.49	--	1,664	2.64	-110.6	3.50
	3/9/2017	8.45	7.31	1,403	2,157	1.81	-158.2	4.25
	6/15/2017	11.52	7.27	1,390	2,125	0.74	-203.1	4.50
	9/27/2017	15.35	6.93	--	1,790	--	--	3.50
	12/6/2017	12.14	7.00	1,318	2,022	2.15	-69.5	3.50
	3/15/2018	9.90	7.35	--	1,790	0.62	-112.6	3.50
	6/27/2018	16.73	6.97	--	1,959	1.04	-96.4	3.25
	9/5/2018	17.10	7.46	--	1,898	4.17	-109.1	3.00
	3/9/2019	11.20	7.16	1,020	2,050	--	-24.3	3.00
	5/29/2019	15.50	7.01	1,060	2,120	--	-17.5	3.00
	8/21/2019	23.90	6.74	1,070	2,140	13.50	-15.4	3.00
	11/20/2019	10.30	6.35	920	1,830	--	-21.9	--
	3/28/2020	10.40	6.49	1,000	1,980	5.13	-9.3	--
	6/3/2020	20.40	6.60	--	2,020	1.00	-7.0	--
	7/28/2020	20.70	6.79	1,070	2,140	1.03	-9.4	--
	10/9/2020	20.60	6.55	1,010	2,020	2.68	-1.2	--
MW-2	12/1/2016	9.75	8.11	--	1,980	6.29	-128.8	4.25
	3/9/2017	7.58	7.24	1,812	2,788	1.72	-144.7	4.75
	6/15/2017	10.24	7.64	1,494	2,298	4.09	-148.3	4.50
	9/27/2017	13.76	7.12	--	2,009	--	--	4.00
	12/6/2017	11.09	6.96	1,394	2,145	4.22	-63.1	4.00
	3/15/2018	8.19	7.32	--	2,302	0.13	-75.6	4.25
	6/27/2018	12.49	7.17	--	2,104	0.57	-41.9	4.00
	9/5/2018	16.74	7.52	--	1,954	4.76	-13.1	3.50
	3/9/2019	9.80	7.24	1,090	2,180	--	-27.9	3.50
	5/29/2019	14.40	7.11	1,160	2,330	--	-17.4	3.50
	8/21/2019	22.40	7.26	1,110	2,220	19.70	-15.1	--
	11/20/2019	11.20	6.32	1,030	2,530	--	-26.6	--
	3/27/2020	9.90	6.92	1,110	2,220	9.36	-15.8	--
	6/3/2020	18.20	6.31	--	2,180	1.11	-17.4	--
	7/27/2020	24.20	6.99	1,050	2,100	1.77	-18.6	--
	10/9/2020	18.20	6.51	1,010	2,010	3.33	-11.0	--
MW-3	12/1/2016	12.09	7.39	--	2,200	2.30	-53.7	4.50
	3/9/2017	7.48	7.42	1,709	2,614	3.58	-124.2	5.00
	6/15/2017	10.06	7.41	1,407	2,164	2.53	-149.4	4.75
	9/27/2017	12.76	7.39	--	1,914	--	--	4.00
	12/6/2017	10.06	6.93	1,339	2,060	1.74	-58.2	4.25
	3/15/2018	8.10	7.23	--	2,142	0.75	18.0	--
	6/27/2018	12.49	7.17	--	2,104	0.57	-41.9	4.00
	9/5/2018	14.22	7.46	--	2,064	1.17	-4.3	4.00
	3/9/2019	7.60	7.28	1,130	2,260	--	-20.6	3.00
	5/29/2019	13.10	7.03	1,300	2,590	--	-15.6	3.00
	8/21/2019	7.05	10.07	1,130	2,250	20.90	-26.0	--
	11/20/2019	12.80	6.31	1,300	2,390	--	-26.6	--
	3/27/2020	10.10	6.54	1,140	2,300	8.22	-16.7	--
	6/2/2020	19.50	6.35	1,130	2,270	1.13	-11.9	--
	7/27/2020	19.40	6.47	1,110	2,380	1.30	-14.7	--
	10/9/2020	16.90	6.55	1,030	1,910	3.46	-17.6	--
PW-1	3/31/2020	14.40	6.19	1,010	2,080	6.10	2.8	--
	6/1/2020	19.60	6.12	--	2,000	0.98	-10.1	--

Well ID	Sample Date	Temperature (°C)	pH	TDS (mg/L)	Conductivity (uS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
RW-1	7/29/2020	--	--	--	--	--	--	0.28
	10/12/2020	16.20	6.70	930	1,850	3.91	-28.9	0.13
RW-2	3/31/2020	13.50	6.35	1,060	2,120	6.24	2.3	--
	6/1/2020	17.80	--	1,050	2,090	1.05	-1.3	--
	7/29/2020	19.40	6.72	1,070	2,120	1.13	-13.3	--
	10/12/2020	17.40	6.73	980	1,970	3.99	-6.0	0.09
RW-3	3/31/2020	14.10	6.16	1,080	2,130	7.24	6.4	--
	6/2/2020	19.50	6.38	--	2,130	1.06	2.6	--
	7/29/2020	--	--	--	--	--	--	0.61
	10/12/2020	21.90	6.49	970	1,930	3.64	12.3	0.55
RW-4	3/31/2020	13.40	6.28	970	1,940	6.98	-21.5	--
	6/2/2020	--	--	--	--	--	--	--
	7/29/2020	--	--	--	--	--	--	0.03
	10/12/2020	20.90	6.68	950	1,910	2.96	-34.2	0.55

Notes:

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mg/L - milligrams per liter

°C - degrees Celcius

DO - dissolved oxygen

mV - millivolts

ORP - oxidation-reduction potential

TDS - total dissolved solids

-- - data not collected

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

STATE COM J #6
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Naphthalenes
NMWQCC Standards				0.010	0.75	0.75	0.62	0.03
MW-1	GW-081773-051214-MW-1	5/12/2014	(orig)	0.0134	0.0304	0.0152	0.228	0.0017
	GW-081773-092314-CB-MW-1	9/23/2014	(orig)	0.01	< 0.001	0.0033	0.0233	< 0.0005
	GW-081773-121714-JW-MW-1	12/17/2014	(orig)	0.0252	< 0.001	0.0121	0.0488	0.00085
	GW-081773-051415-CB-MW-1	5/14/2015	(orig)	0.0041	< 0.001	0.0056	0.0121	< 0.00045
	GW-081773-092215-CB-MW-1	9/22/2015	(orig)	0.0463	< 0.001	0.0214	0.115	0.0012
	GW-081773-092215-CB-DUP	9/22/2015	(Duplicate)	0.0215	< 0.001	0.0097	0.0521	--
	GW-081773-033016-CM-DUP	3/30/2016	(Duplicate)	0.0074	< 0.001	0.0030	0.0122	< 0.0005
	GW-081773-090816-SP-MW-1	9/8/2016	(orig)	0.0121	< 0.001	0.0124	0.0817	0.001
	GW-081773-090816-SP-DUP	9/8/2016	(Duplicate)	0.0106	< 0.001	0.0109	0.0720	--
	GW-081773-120116-JK-MW-1	12/1/2016	(orig)	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-031917-CNMW-1	3/9/2017	(orig)	0.0028	<0.001	<0.001	<0.003	--
	WT-081773-06152017-CN-MW1	6/15/2017	(orig)	0.0431	<0.001	0.0022	0.0038	
	GW-11145955-092717-SP-MW-1	9/27/2017	(orig)	0.0067	<0.001	0.0056	0.0338	--
	GW-11145955-120617-SP-MW-1	12/6/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-031518-JW-MW-1	3/15/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-062718-CM-MW-1	6/27/2018	(orig)	0.0043	<0.001	0.005	0.0123	--
	GW-11145955-090518-CN-MW-1	9/5/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-1	12/20/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-1	3/15/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-1	5/29/2019	(orig)	0.0083	<0.001	0.0017	0.0051	<0.005
	MW-1	8/21/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-1	11/21/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-1	3/31/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.00025
	MW-1	6/3/2020	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-1	7/28/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-1	10/9/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Naphthalenes
NMWQCC Standards				0.010	0.75	0.75	0.62	0.03
MW-2	GW-081773-092616-JW-MW-2	9/26/2016	(orig)	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-120116-JK-MW-2	12/1/2016	(orig)	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-031917-CNMW-2	3/9/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	WT-081773-061517-CNMW-2	6/15/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-092717-SP-MW-2	9/27/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-120617-SP-MW-2	12/6/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-031518-JW-MW-2	3/15/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-062718-CM-MW-2	6/27/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-090518-CN-MW-2	9/5/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-2	12/20/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-2	3/9/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-2	5/29/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-2	8/21/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-2	11/21/2019	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-2	3/31/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.00025
	MW-2	6/3/2020	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-2	7/27/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-2	10/9/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
MW-3	GW-081773-09/16/2016-JW-MW2	9/26/2016	(orig)	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-120116-JK-MW-3	12/1/2016	(orig)	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-031917-CNMW-3	3/9/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	WT-081773-061517-CN-MW3	6/15/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-092717-SP-MW-3	9/27/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-120617-SP-MW-3	12/6/2017	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-031518-JW-MW-3	3/15/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-062718-CM-MW-3	6/27/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	GW-11145955-090518-CN-MW-2	9/5/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-3	12/20/2018	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-3	3/9/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-3	5/29/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-3	8/21/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-3	11/20/2019	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-3	3/31/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.00025
	MW-3	6/2/2020	(orig)	<0.001	<0.001	<0.001	<0.003	--
	MW-3	7/27/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005
	MW-3	10/9/2020	(orig)	<0.001	<0.001	<0.001	<0.003	<0.005

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Naphthalenes
NMWQCC Standards				0.010	0.75	0.75	0.62	0.03
RW-1	GW-081773-051214-RW-1	5/12/2014	(orig)	1.88	6.27	0.567	8.96	0.109
	GW-081773-051415-CB-RW-1	5/14/2015	(orig)	0.688	0.764	0.388	5.65	0.121
	GW-081773-051415-CB-DUP	5/14/2015	(Duplicate)	0.681	0.737	0.383	5.39	--
	RW-1	3/9/2019	--	--	--	--	--	--
	RW-1	5/28/2019	(orig)	0.349	<0.025	0.240	5.76	0.133
	RW-1	8/21/2019	--	Not Sampled - PSH Present				
	RW-1	11/20/2019	--	Not Sampled - PSH Present				
	RW-1	3/31/2020	(orig)	0.151	<0.050	0.499	6.77	0.291
	RW-1	6/3/2020	(orig)	0.156	<0.050	0.511	8.73	--
	RW-1	7/29/2020	--	Not Sampled - PSH Present				
	RW-1	10/12/2020	(orig)	0.121	<0.050	1.070	18.10	0.956
RW-2	RW-2	3/9/2019	(orig)	--	--	--	--	--
	RW-2	5/28/2019	(orig)	0.0404	<0.01	0.096	1.05	0.056
	RW-2	9/4/2019	(orig)	0.0083	<0.001	0.045	0.376	0.064
	RW-2	11/20/2019	(orig)	0.0026	<0.01	0.0280	0.3550	0.005
	RW-2	3/31/2020	(orig)	0.003	<0.001	0.0385	0.7340	0.029
	RW-2	6/1/2020	(orig)	<0.010	<0.010	0.0324	0.2980	--
	RW-2	7/29/2020	(orig)	<0.002	<0.002	0.0095	0.1090	0.013
	RW-2	10/12/2020	(orig)	<0.001	<0.001	0.0016	0.0147	<0.005
RW-3	RW-3	5/12/2014	(orig)	0.416	0.889	0.153	4.58	0.0596
	RW-3	3/9/2019	--	--	--	--	--	--
	RW-3	5/28/2019	(orig)	0.386	<0.010	0.191	1.80	<0.50
	RW-3	8/21/2019	--	Not Sampled - PSH Present				
	RW-3	11/20/2019	--	Not Sampled - PSH Present				
	RW-3	3/31/2020	(orig)	0.414	<0.100 D	0.385	6.76	0.395
	RW-3	6/2/2020	(orig)	0.703	<0.100	2.49	35.70	--
	RW-3	7/29/2020	--	Not Sampled - PSH Present				
	RW-3	10/12/2020	(orig)	1.280	<0.100	0.466	7.09	<0.500
RW-4	RW-4	3/9/2019	--	--	--	--	--	--
	RW-4	5/28/2019	(orig)	0.321	<0.05	0.071	5.78	<0.250
	RW-4	8/21/2019	--	Not Sampled - PSH Present				
	RW-4	11/20/2019	--	Not Sampled - PSH Present				
	RW-4	3/31/2020	(orig)	0.152	<0.100	0.300	5.74	0.385
	RW-4	6/2/2020		Not Sampled - PSH Present				
	RW-4	7/29/2020	--	Not Sampled - PSH Present				
	RW-4	10/12/2020	(orig)	0.286	<0.100	3.660	4.88	3.050

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Naphthalenes
NMWQCC Standards				0.010	0.75	0.75	0.62	0.03

Notes:

D - sample diluted due to matrix interference

mg/L - milligrams per liter

ND - not detected, practical quantitation limit unknown

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

PSH - phase separated hydrocarbon

<0.037 - indicates result less than the stated laboratory reporting limit (PQL)

BOLD - indicates concentration exceeds the NNEPA standard

-- - not analyzed

Naphthalenes = this standard applies to the sum of naphthalene and monomethylnaphthalene isomers (1-methyl, 2-methyl)

ANALYTICAL REPORT

April 09, 2020

HilCorp-Farmington, NM

Sample Delivery Group:	L1205336
Samples Received:	04/02/2020
Project Number:	
Description:	State Com J6

Report To: Kurt Hoekstra
382 Road 3100
Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

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RW1 L1205336-01 GW

Collected by: Kurt | Collected date/time: 03/31/20 15:25 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456899	50	04/07/20 23:28	04/07/20 23:28	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 01:58	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	20	04/06/20 17:10	04/07/20 05:58	AAT	Mt. Juliet, TN

RW2 L1205336-02 GW

Collected by: Kurt | Collected date/time: 03/31/20 15:45 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455430	1	04/04/20 02:04	04/04/20 02:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456899	10	04/07/20 23:51	04/07/20 23:51	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 02:18	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	20	04/06/20 17:10	04/07/20 06:20	AAT	Mt. Juliet, TN

RW3 L1205336-03 GW

Collected by: Kurt | Collected date/time: 03/31/20 16:20 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456217	100	04/06/20 15:25	04/06/20 15:25	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 02:38	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	20	04/06/20 17:10	04/07/20 06:40	AAT	Mt. Juliet, TN

RW4 L1205336-04 GW

Collected by: Kurt | Collected date/time: 03/31/20 16:45 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1457594	100	04/08/20 22:18	04/08/20 22:18	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 02:58	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	20	04/06/20 17:10	04/07/20 07:00	AAT	Mt. Juliet, TN

MW1 L1205336-05 GW

Collected by: Kurt | Collected date/time: 03/31/20 13:00 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455473	1	04/04/20 02:10	04/04/20 02:10	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 03:18	AAT	Mt. Juliet, TN

MW2 L1205336-06 GW

Collected by: Kurt | Collected date/time: 03/31/20 14:40 | Received date/time: 04/02/20 08:30

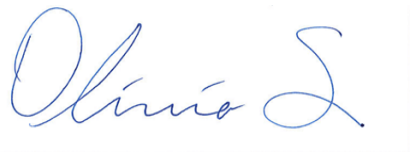
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455473	1	04/04/20 02:30	04/04/20 02:30	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 03:38	AAT	Mt. Juliet, TN

MW3 L1205336-07 GW

Collected by: Kurt | Collected date/time: 03/31/20 13:40 | Received date/time: 04/02/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455473	1	04/04/20 02:51	04/04/20 02:51	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1455917	1	04/06/20 17:10	04/07/20 03:58	AAT	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Olivia Studebaker
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.151		0.0500	50	04/07/2020 23:28	WG1456899
Toluene	ND		0.0500	50	04/07/2020 23:28	WG1456899
Ethylbenzene	0.499		0.0500	50	04/07/2020 23:28	WG1456899
Total Xylenes	6.77		0.150	50	04/07/2020 23:28	WG1456899
(S) Toluene-d8	*110*		*80.0-120*		*04/07/2020 23:28*	WG1456899
(S) 4-Bromofluorobenzene	*92.7*		*77.0-126*		*04/07/2020 23:28*	WG1456899
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*04/07/2020 23:28*	WG1456899

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.00366		0.0000500	1	04/07/2020 01:58	WG1455917
Acenaphthene	0.00653		0.0000500	1	04/07/2020 01:58	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 01:58	WG1455917
Benzo(a)anthracene	0.00272		0.0000500	1	04/07/2020 01:58	WG1455917
Benzo(a)pyrene	0.00112		0.0000500	1	04/07/2020 01:58	WG1455917
Benzo(b)fluoranthene	0.00148		0.0000500	1	04/07/2020 01:58	WG1455917
Benzo(g,h,i)perylene	0.000401		0.0000500	1	04/07/2020 01:58	WG1455917
Benzo(k)fluoranthene	0.000582		0.0000500	1	04/07/2020 01:58	WG1455917
Chrysene	0.00194		0.0000500	1	04/07/2020 01:58	WG1455917
Dibenz(a,h)anthracene	0.000126		0.0000500	1	04/07/2020 01:58	WG1455917
Fluoranthene	0.0115		0.0000500	1	04/07/2020 01:58	WG1455917
Fluorene	0.0128		0.0000500	1	04/07/2020 01:58	WG1455917
Indeno(1,2,3-cd)pyrene	0.000568		0.0000500	1	04/07/2020 01:58	WG1455917
Naphthalene	0.290		0.00500	20	04/07/2020 05:58	WG1455917
Phenanthrene	0.0197		0.0000500	1	04/07/2020 01:58	WG1455917
Pyrene	0.00982		0.0000500	1	04/07/2020 01:58	WG1455917
1-Methylnaphthalene	0.228		0.00500	20	04/07/2020 05:58	WG1455917
2-Methylnaphthalene	0.424		0.00500	20	04/07/2020 05:58	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 01:58	WG1455917
(S) Nitrobenzene-d5	*0.000*	J2	*31.0-160*		*04/07/2020 01:58*	WG1455917
(S) Nitrobenzene-d5	*0.000*	J7	*31.0-160*		*04/07/2020 05:58*	WG1455917
(S) 2-Fluorobiphenyl	*119*		*48.0-148*		*04/07/2020 01:58*	WG1455917
(S) 2-Fluorobiphenyl	*0.000*	J7	*48.0-148*		*04/07/2020 05:58*	WG1455917
(S) p-Terphenyl-d14	*98.4*		*37.0-146*		*04/07/2020 01:58*	WG1455917
(S) p-Terphenyl-d14	*85.3*	J7	*37.0-146*		*04/07/2020 05:58*	WG1455917

Sample Narrative:

L1205336-01 WG1455917: IS/SURR failed on lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00308		0.00100	1	04/04/2020 02:04	WG1455430
Toluene	ND		0.00100	1	04/04/2020 02:04	WG1455430
Ethylbenzene	0.0385		0.00100	1	04/04/2020 02:04	WG1455430
Total Xylenes	0.734		0.0300	10	04/07/2020 23:51	WG1456899
(S) Toluene-d8	*101*		*80.0-120*		*04/04/2020 02:04*	WG1455430
(S) Toluene-d8	*113*		*80.0-120*		*04/07/2020 23:51*	WG1456899
(S) 4-Bromofluorobenzene	*113*		*77.0-126*		*04/04/2020 02:04*	WG1455430
(S) 4-Bromofluorobenzene	*99.6*		*77.0-126*		*04/07/2020 23:51*	WG1456899
(S) 1,2-Dichloroethane-d4	*118*		*70.0-130*		*04/04/2020 02:04*	WG1455430
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*04/07/2020 23:51*	WG1456899

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000347		0.0000500	1	04/07/2020 02:18	WG1455917
Acenaphthene	0.000817		0.0000500	1	04/07/2020 02:18	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 02:18	WG1455917
Benzo(a)anthracene	0.000330		0.0000500	1	04/07/2020 02:18	WG1455917
Benzo(a)pyrene	0.000132		0.0000500	1	04/07/2020 02:18	WG1455917
Benzo(b)fluoranthene	0.000208		0.0000500	1	04/07/2020 02:18	WG1455917
Benzo(g,h,i)perylene	0.0000622		0.0000500	1	04/07/2020 02:18	WG1455917
Benzo(k)fluoranthene	0.0000643		0.0000500	1	04/07/2020 02:18	WG1455917
Chrysene	0.000180		0.0000500	1	04/07/2020 02:18	WG1455917
Dibenz(a,h)anthracene	ND		0.0000500	1	04/07/2020 02:18	WG1455917
Fluoranthene	0.00125		0.0000500	1	04/07/2020 02:18	WG1455917
Fluorene	0.00243		0.0000500	1	04/07/2020 02:18	WG1455917
Indeno(1,2,3-cd)pyrene	0.0000749		0.0000500	1	04/07/2020 02:18	WG1455917
Naphthalene	0.0289		0.00500	20	04/07/2020 06:20	WG1455917
Phenanthrene	0.00217		0.0000500	1	04/07/2020 02:18	WG1455917
Pyrene	0.00112		0.0000500	1	04/07/2020 02:18	WG1455917
1-Methylnaphthalene	0.0426		0.00500	20	04/07/2020 06:20	WG1455917
2-Methylnaphthalene	0.0550		0.00500	20	04/07/2020 06:20	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 02:18	WG1455917
(S) Nitrobenzene-d5	*0.000*	J2	*31.0-160*		*04/07/2020 02:18*	WG1455917
(S) Nitrobenzene-d5	*0.000*	J7	*31.0-160*		*04/07/2020 06:20*	WG1455917
(S) 2-Fluorobiphenyl	*127*	J7	*48.0-148*		*04/07/2020 06:20*	WG1455917
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*04/07/2020 02:18*	WG1455917
(S) p-Terphenyl-d14	*107*		*37.0-146*		*04/07/2020 02:18*	WG1455917
(S) p-Terphenyl-d14	*106*	J7	*37.0-146*		*04/07/2020 06:20*	WG1455917

Sample Narrative:

L1205336-02 WG1455917: IS/SURR failed on lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.414		0.100	100	04/06/2020 15:25	WG1456217
Toluene	ND		0.100	100	04/06/2020 15:25	WG1456217
Ethylbenzene	0.385		0.100	100	04/06/2020 15:25	WG1456217
Total Xylenes	6.76		0.300	100	04/06/2020 15:25	WG1456217
(S) Toluene-d8	*110*		*80.0-120*		*04/06/2020 15:25*	WG1456217
(S) 4-Bromofluorobenzene	*108*		*77.0-126*		*04/06/2020 15:25*	WG1456217
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*04/06/2020 15:25*	WG1456217

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.00513		0.0000500	1	04/07/2020 02:38	WG1455917
Acenaphthene	0.00984		0.0000500	1	04/07/2020 02:38	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 02:38	WG1455917
Benzo(a)anthracene	0.00653		0.0000500	1	04/07/2020 02:38	WG1455917
Benzo(a)pyrene	0.00267		0.0000500	1	04/07/2020 02:38	WG1455917
Benzo(b)fluoranthene	0.00365		0.0000500	1	04/07/2020 02:38	WG1455917
Benzo(g,h,i)perylene	0.000929		0.0000500	1	04/07/2020 02:38	WG1455917
Benzo(k)fluoranthene	0.00124		0.0000500	1	04/07/2020 02:38	WG1455917
Chrysene	0.00433		0.0000500	1	04/07/2020 02:38	WG1455917
Dibenz(a,h)anthracene	0.000286		0.0000500	1	04/07/2020 02:38	WG1455917
Fluoranthene	0.0262		0.0000500	1	04/07/2020 02:38	WG1455917
Fluorene	0.0222		0.0000500	1	04/07/2020 02:38	WG1455917
Indeno(1,2,3-cd)pyrene	0.00132		0.0000500	1	04/07/2020 02:38	WG1455917
Naphthalene	0.395		0.00500	20	04/07/2020 06:40	WG1455917
Phenanthrene	0.0312		0.0000500	1	04/07/2020 02:38	WG1455917
Pyrene	0.0234		0.0000500	1	04/07/2020 02:38	WG1455917
1-Methylnaphthalene	0.357		0.00500	20	04/07/2020 06:40	WG1455917
2-Methylnaphthalene	0.709		0.00500	20	04/07/2020 06:40	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 02:38	WG1455917
(S) Nitrobenzene-d5	*0.000*	J7	*31.0-160*		*04/07/2020 06:40*	WG1455917
(S) Nitrobenzene-d5	*0.000*	J2	*31.0-160*		*04/07/2020 02:38*	WG1455917
(S) 2-Fluorobiphenyl	*141*		*48.0-148*		*04/07/2020 02:38*	WG1455917
(S) 2-Fluorobiphenyl	*164*	J7	*48.0-148*		*04/07/2020 06:40*	WG1455917
(S) p-Terphenyl-d14	*112*		*37.0-146*		*04/07/2020 02:38*	WG1455917
(S) p-Terphenyl-d14	*115*	J7	*37.0-146*		*04/07/2020 06:40*	WG1455917

Sample Narrative:

L1205336-03 WG1455917: IS/SURR failed on lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.152		0.100	100	04/08/2020 22:18	WG1457594
Toluene	ND		0.100	100	04/08/2020 22:18	WG1457594
Ethylbenzene	0.300		0.100	100	04/08/2020 22:18	WG1457594
Total Xylenes	5.74		0.300	100	04/08/2020 22:18	WG1457594
(S) Toluene-d8	*112*		*80.0-120*		*04/08/2020 22:18*	WG1457594
(S) 4-Bromofluorobenzene	*85.2*		*77.0-126*		*04/08/2020 22:18*	WG1457594
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*04/08/2020 22:18*	WG1457594

Sample Narrative:

L1205336-04 WG1457594: Non-target compounds too high to run at a lower dilution.

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.00801		0.0000500	1	04/07/2020 02:58	WG1455917
Acenaphthene	0.0160		0.0000500	1	04/07/2020 02:58	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 02:58	WG1455917
Benzo(a)anthracene	0.00979		0.0000500	1	04/07/2020 02:58	WG1455917
Benzo(a)pyrene	0.00393		0.0000500	1	04/07/2020 02:58	WG1455917
Benzo(b)fluoranthene	0.00520		0.0000500	1	04/07/2020 02:58	WG1455917
Benzo(g,h,i)perylene	0.00138		0.0000500	1	04/07/2020 02:58	WG1455917
Benzo(k)fluoranthene	0.00177		0.0000500	1	04/07/2020 02:58	WG1455917
Chrysene	0.00658		0.0000500	1	04/07/2020 02:58	WG1455917
Dibenz(a,h)anthracene	0.000434		0.0000500	1	04/07/2020 02:58	WG1455917
Fluoranthene	0.0374		0.0000500	1	04/07/2020 02:58	WG1455917
Fluorene	0.0347		0.0000500	1	04/07/2020 02:58	WG1455917
Indeno(1,2,3-cd)pyrene	0.00192		0.0000500	1	04/07/2020 02:58	WG1455917
Naphthalene	0.385		0.00500	20	04/07/2020 07:00	WG1455917
Phenanthrene	0.0389		0.0000500	1	04/07/2020 02:58	WG1455917
Pyrene	0.0321		0.0000500	1	04/07/2020 02:58	WG1455917
1-Methylnaphthalene	0.335		0.00500	20	04/07/2020 07:00	WG1455917
2-Methylnaphthalene	0.652		0.00500	20	04/07/2020 07:00	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 02:58	WG1455917
(S) Nitrobenzene-d5	*0.000*	J2	*31.0-160*		*04/07/2020 02:58*	WG1455917
(S) Nitrobenzene-d5	*0.000*	J7	*31.0-160*		*04/07/2020 07:00*	WG1455917
(S) 2-Fluorobiphenyl	*197*	J1	*48.0-148*		*04/07/2020 02:58*	WG1455917
(S) 2-Fluorobiphenyl	*165*	J7	*48.0-148*		*04/07/2020 07:00*	WG1455917
(S) p-Terphenyl-d14	*95.8*		*37.0-146*		*04/07/2020 02:58*	WG1455917
(S) p-Terphenyl-d14	*97.9*	J7	*37.0-146*		*04/07/2020 07:00*	WG1455917

Sample Narrative:

L1205336-04 WG1455917: IS/SURR failed on lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	04/04/2020 02:10	WG1455473
Toluene	ND		0.00100	1	04/04/2020 02:10	WG1455473
Ethylbenzene	ND		0.00100	1	04/04/2020 02:10	WG1455473
Total Xylenes	ND		0.00300	1	04/04/2020 02:10	WG1455473
(S) Toluene-d8	*109*		*80.0-120*		*04/04/2020 02:10*	WG1455473
(S) 4-Bromofluorobenzene	*98.4*		*77.0-126*		*04/04/2020 02:10*	WG1455473
(S) 1,2-Dichloroethane-d4	*114*		*70.0-130*		*04/04/2020 02:10*	WG1455473

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Acenaphthene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Benzo(a)anthracene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Benzo(a)pyrene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Benzo(b)fluoranthene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Benzo(g,h,i)perylene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Benzo(k)fluoranthene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Chrysene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Dibenz(a,h)anthracene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Fluoranthene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Fluorene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Naphthalene	ND		0.000250	1	04/07/2020 03:18	WG1455917
Phenanthrene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
Pyrene	ND		0.0000500	1	04/07/2020 03:18	WG1455917
1-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:18	WG1455917
2-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:18	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 03:18	WG1455917
(S) Nitrobenzene-d5	*144*		*31.0-160*		*04/07/2020 03:18*	WG1455917
(S) 2-Fluorobiphenyl	*105*		*48.0-148*		*04/07/2020 03:18*	WG1455917
(S) p-Terphenyl-d14	*90.5*		*37.0-146*		*04/07/2020 03:18*	WG1455917

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	04/04/2020 02:30	WG1455473
Toluene	ND		0.00100	1	04/04/2020 02:30	WG1455473
Ethylbenzene	ND		0.00100	1	04/04/2020 02:30	WG1455473
Total Xylenes	ND		0.00300	1	04/04/2020 02:30	WG1455473
(S) Toluene-d8	*109*		*80.0-120*		*04/04/2020 02:30*	WG1455473
(S) 4-Bromofluorobenzene	*94.6*		*77.0-126*		*04/04/2020 02:30*	WG1455473
(S) 1,2-Dichloroethane-d4	*113*		*70.0-130*		*04/04/2020 02:30*	WG1455473

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Acenaphthene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Benzo(a)anthracene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Benzo(a)pyrene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Benzo(b)fluoranthene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Benzo(g,h,i)perylene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Benzo(k)fluoranthene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Chrysene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Dibenz(a,h)anthracene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Fluoranthene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Fluorene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Naphthalene	ND		0.000250	1	04/07/2020 03:38	WG1455917
Phenanthrene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
Pyrene	ND		0.0000500	1	04/07/2020 03:38	WG1455917
1-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:38	WG1455917
2-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:38	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 03:38	WG1455917
(S) Nitrobenzene-d5	*122*		*31.0-160*		*04/07/2020 03:38*	WG1455917
(S) 2-Fluorobiphenyl	*112*		*48.0-148*		*04/07/2020 03:38*	WG1455917
(S) p-Terphenyl-d14	*90.5*		*37.0-146*		*04/07/2020 03:38*	WG1455917

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	04/04/2020 02:51	WG1455473
Toluene	ND		0.00100	1	04/04/2020 02:51	WG1455473
Ethylbenzene	ND		0.00100	1	04/04/2020 02:51	WG1455473
Total Xylenes	ND		0.00300	1	04/04/2020 02:51	WG1455473
(S) Toluene-d8	*111*		*80.0-120*		*04/04/2020 02:51*	WG1455473
(S) 4-Bromofluorobenzene	*98.9*		*77.0-126*		*04/04/2020 02:51*	WG1455473
(S) 1,2-Dichloroethane-d4	*116*		*70.0-130*		*04/04/2020 02:51*	WG1455473

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Acenaphthene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Acenaphthylene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Benzo(a)anthracene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Benzo(a)pyrene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Benzo(b)fluoranthene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Benzo(g,h,i)perylene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Benzo(k)fluoranthene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Chrysene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Dibenz(a,h)anthracene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Fluoranthene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Fluorene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Naphthalene	ND		0.000250	1	04/07/2020 03:58	WG1455917
Phenanthrene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
Pyrene	ND		0.0000500	1	04/07/2020 03:58	WG1455917
1-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:58	WG1455917
2-Methylnaphthalene	ND		0.000250	1	04/07/2020 03:58	WG1455917
2-Chloronaphthalene	ND		0.000250	1	04/07/2020 03:58	WG1455917
(S) Nitrobenzene-d5	*116*		*31.0-160*		*04/07/2020 03:58*	WG1455917
(S) 2-Fluorobiphenyl	*111*		*48.0-148*		*04/07/2020 03:58*	WG1455917
(S) p-Terphenyl-d14	*94.2*		*37.0-146*		*04/07/2020 03:58*	WG1455917

Method Blank (MB)

(MB) R3516370-3 04/03/20 21:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*117*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3516370-1 04/03/20 19:23 • (LCSD) R3516370-2 04/03/20 19:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00438	0.00459	87.6	91.8	70.0-123			4.68	20
Ethylbenzene	0.00500	0.00398	0.00406	79.6	81.2	79.0-123			1.99	20
Toluene	0.00500	0.00428	0.00443	85.6	88.6	79.0-120			3.44	20
(S) Toluene-d8				*104*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.9*	*92.0*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*116*	*120*	*70.0-130*				

Method Blank (MB)

(MB) R3516723-3 04/04/20 00:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3516723-1 04/03/20 23:23 • (LCSD) R3516723-2 04/03/20 23:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00448	0.00482	89.6	96.4	70.0-123			7.31	20
Ethylbenzene	0.00500	0.00421	0.00445	84.2	89.0	79.0-123			5.54	20
Toluene	0.00500	0.00444	0.00467	88.8	93.4	79.0-120			5.05	20
Xylenes, Total	0.0150	0.0127	0.0137	84.7	91.3	79.0-123			7.58	20
(S) Toluene-d8				*107*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.4*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*116*	*114*	*70.0-130*				

Method Blank (MB)

(MB) R3516987-2 04/06/20 12:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3516987-1 04/06/20 11:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00595	119	70.0-123	
Ethylbenzene	0.00500	0.00544	109	79.0-123	
Toluene	0.00500	0.00592	118	79.0-120	
Xylenes, Total	0.0150	0.0152	101	79.0-123	
(S) Toluene-d8			*105*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3516634-3 04/07/20 16:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*81.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3516634-1 04/07/20 14:44 • (LCSD) R3516634-2 04/07/20 15:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00426	0.00421	85.2	84.2	70.0-123			1.18	20
Ethylbenzene	0.00500	0.00448	0.00446	89.6	89.2	79.0-123			0.447	20
Toluene	0.00500	0.00480	0.00463	96.0	92.6	79.0-120			3.61	20
Xylenes, Total	0.0150	0.0128	0.0126	85.3	84.0	79.0-123			1.57	20
(S) Toluene-d8				*105*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*79.4*	*81.5*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*107*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3517002-3 04/08/20 13:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*80.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3517002-1 04/08/20 12:15 • (LCSD) R3517002-2 04/08/20 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00453	0.00456	90.6	91.2	70.0-123			0.660	20
Ethylbenzene	0.00500	0.00485	0.00479	97.0	95.8	79.0-123			1.24	20
Toluene	0.00500	0.00502	0.00517	100	103	79.0-120			2.94	20
Xylenes, Total	0.0150	0.0128	0.0135	85.3	90.0	79.0-123			5.32	20
(S) Toluene-d8				*104*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*79.3*	*77.4*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*105*	*112*	*70.0-130*				

Method Blank (MB)

(MB) R3516131-3 04/06/20 22:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	0.0000107	J	0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
1-Methylnaphthalene	U		0.00000821	0.000250
2-Methylnaphthalene	U		0.00000902	0.000250
2-Chloronaphthalene	U		0.00000647	0.000250
(S) Nitrobenzene-d5	*115*			*31.0-160*
(S) 2-Fluorobiphenyl	*113*			*48.0-148*
(S) p-Terphenyl-d14	*104*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3516131-1 04/06/20 22:19 • (LCSD) R3516131-2 04/06/20 22:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00214	0.00231	107	115	67.0-150			7.64	20
Acenaphthene	0.00200	0.00216	0.00230	108	115	65.0-138			6.28	20
Acenaphthylene	0.00200	0.00224	0.00235	112	117	66.0-140			4.79	20
Benzo(a)anthracene	0.00200	0.00197	0.00212	98.5	106	61.0-140			7.33	20
Benzo(a)pyrene	0.00200	0.00201	0.00217	100	108	60.0-143			7.66	20
Benzo(b)fluoranthene	0.00200	0.00192	0.00210	96.0	105	58.0-141			8.96	20
Benzo(g,h,i)perylene	0.00200	0.00188	0.00204	94.0	102	52.0-153			8.16	20
Benzo(k)fluoranthene	0.00200	0.00205	0.00226	102	113	58.0-148			9.74	20
Chrysene	0.00200	0.00204	0.00224	102	112	64.0-144			9.35	20
Dibenz(a,h)anthracene	0.00200	0.00203	0.00217	102	108	52.0-155			6.67	20
Fluoranthene	0.00200	0.00199	0.00218	99.5	109	69.0-153			9.11	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3516131-1 04/06/20 22:19 • (LCSD) R3516131-2 04/06/20 22:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00200	0.00216	0.00226	108	113	64.0-136			4.52	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00196	0.00211	98.0	105	54.0-153			7.37	20
Naphthalene	0.00200	0.00217	0.00223	108	111	61.0-137			2.73	20
Phenanthrene	0.00200	0.00204	0.00224	102	112	62.0-137			9.35	20
Pyrene	0.00200	0.00204	0.00229	102	114	60.0-142			11.5	20
1-Methylnaphthalene	0.00200	0.00222	0.00229	111	114	66.0-142			3.10	20
2-Methylnaphthalene	0.00200	0.00213	0.00220	106	110	62.0-136			3.23	20
2-Chloronaphthalene	0.00200	0.00216	0.00227	108	114	64.0-140			4.97	20
(S) Nitrobenzene-d5				*118*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*110*	*117*	*48.0-148*				
(S) p-Terphenyl-d14				*99.5*	*110*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
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State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

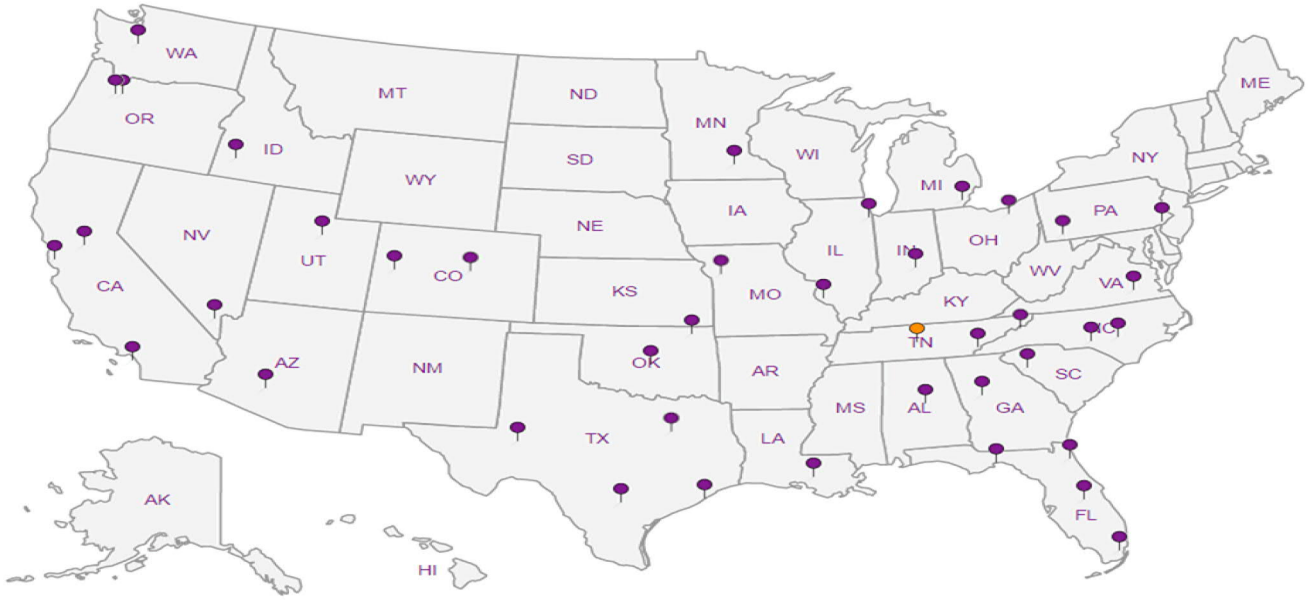
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



HilCorp-Farmington, NM

382 Road 3100
Aztec, NM 87401

Billing Information:
PO Box 61529
Houston, TX 77208

Pres Chk

Report to: **Kurt Hoekstra**

Email To: **khoekstra@hilcorp.com**

Project Description: **State Com J6**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **505-486-9543**
Fax:

Client Project #

Lab Project # **HILCORANM-STATECOMJ6**

Collected by (print): Kurt

Site/Facility ID #

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately
Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl								Remarks	Sample # (lab only)
RW1		GW		3-31	3:25	5	X	X									-01
RW2		GW		3-31	3:45	5	X	X									-02
RW3		GW		3-31	4:20	5	X	X									-03
RW4		GW		3-31	4:45	5	X	X									-04
MW1		GW		3-28	1:00	5	X	X									-05
MW2		GW		3-27	2:40	5	X	X									-06
MW3		GW		3-27	1:40	5	X	X									-07

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 1205336
G152

Acctnum: HILCORANM
Template: T157370
Prelogin: P750466
PM: 823 - Olivia Studebaker
PB:
Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Kurt Hoekstra	4-1-20	6:30	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.3 °C Bottles Received: 35
.8±0=.8

Date: 4-2-20 Time: 0830

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

ANALYTICAL REPORT

June 12, 2020

HilCorp-Farmington, NM

Sample Delivery Group:	L1226168
Samples Received:	06/05/2020
Project Number:	
Description:	State Com J6
Site:	STATE COM J#6
Report To:	Kurt Hoekstra 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

TABLE OF CONTENTS

MW-1 L1226168-01 GW

Collected by: Kurt
Collected date/time: 06/03/20 12:00
Received date/time: 06/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1488478	1	06/07/20 16:17	06/07/20 16:17	JCP	Mt. Juliet, TN

MW-2 L1226168-02 GW

Collected by: Kurt
Collected date/time: 06/03/20 11:00
Received date/time: 06/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1488478	1	06/07/20 16:38	06/07/20 16:38	JCP	Mt. Juliet, TN

MW-3 L1226168-03 GW

Collected by: Kurt
Collected date/time: 06/02/20 13:15
Received date/time: 06/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1488478	1	06/07/20 16:58	06/07/20 16:58	JCP	Mt. Juliet, TN

RW-1 L1226168-04 GW

Collected by: Kurt
Collected date/time: 06/01/20 11:20
Received date/time: 06/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1488478	50	06/07/20 18:41	06/07/20 18:41	JCP	Mt. Juliet, TN

RW-2 L1226168-05 GW

Collected by: Kurt
Collected date/time: 06/01/20 13:45
Received date/time: 06/05/20 08:45

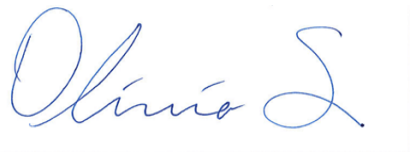
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1489001	10	06/09/20 01:38	06/09/20 01:38	TJJ	Mt. Juliet, TN

RW-3 L1226168-06 GW

Collected by: Kurt
Collected date/time: 06/02/20 11:00
Received date/time: 06/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1489001	100	06/09/20 01:58	06/09/20 01:58	TJJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Olivia Studebaker
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/07/2020 16:17	WG1488478
Toluene	ND		0.00100	1	06/07/2020 16:17	WG1488478
Ethylbenzene	ND		0.00100	1	06/07/2020 16:17	WG1488478
Total Xylenes	ND		0.00300	1	06/07/2020 16:17	WG1488478
(S) Toluene-d8	*98.6*		*80.0-120*		*06/07/2020 16:17*	WG1488478
(S) 4-Bromofluorobenzene	*94.0*		*77.0-126*		*06/07/2020 16:17*	WG1488478
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*06/07/2020 16:17*	WG1488478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/07/2020 16:38	WG1488478
Toluene	ND		0.00100	1	06/07/2020 16:38	WG1488478
Ethylbenzene	ND		0.00100	1	06/07/2020 16:38	WG1488478
Total Xylenes	ND		0.00300	1	06/07/2020 16:38	WG1488478
(S) Toluene-d8	*105*		*80.0-120*		*06/07/2020 16:38*	WG1488478
(S) 4-Bromofluorobenzene	*98.8*		*77.0-126*		*06/07/2020 16:38*	WG1488478
(S) 1,2-Dichloroethane-d4	*111*		*70.0-130*		*06/07/2020 16:38*	WG1488478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/07/2020 16:58	WG1488478
Toluene	ND		0.00100	1	06/07/2020 16:58	WG1488478
Ethylbenzene	ND		0.00100	1	06/07/2020 16:58	WG1488478
Total Xylenes	ND		0.00300	1	06/07/2020 16:58	WG1488478
(S) Toluene-d8	*103*		*80.0-120*		*06/07/2020 16:58*	WG1488478
(S) 4-Bromofluorobenzene	*98.5*		*77.0-126*		*06/07/2020 16:58*	WG1488478
(S) 1,2-Dichloroethane-d4	*112*		*70.0-130*		*06/07/2020 16:58*	WG1488478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.156		0.0500	50	06/07/2020 18:41	WG1488478
Toluene	ND		0.0500	50	06/07/2020 18:41	WG1488478
Ethylbenzene	0.511		0.0500	50	06/07/2020 18:41	WG1488478
Total Xylenes	8.73		0.150	50	06/07/2020 18:41	WG1488478
(S) Toluene-d8	*97.8*		*80.0-120*		*06/07/2020 18:41*	WG1488478
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*06/07/2020 18:41*	WG1488478
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*06/07/2020 18:41*	WG1488478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.0100	10	06/09/2020 01:38	WG1489001
Toluene	ND		0.0100	10	06/09/2020 01:38	WG1489001
Ethylbenzene	0.0324		0.0100	10	06/09/2020 01:38	WG1489001
Total Xylenes	0.298		0.0300	10	06/09/2020 01:38	WG1489001
(S) Toluene-d8	*115*		*80.0-120*		*06/09/2020 01:38*	WG1489001
(S) 4-Bromofluorobenzene	*115*		*77.0-126*		*06/09/2020 01:38*	WG1489001
(S) 1,2-Dichloroethane-d4	*98.0*		*70.0-130*		*06/09/2020 01:38*	WG1489001

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.703		0.100	100	06/09/2020 01:58	WG1489001
Toluene	ND		0.100	100	06/09/2020 01:58	WG1489001
Ethylbenzene	2.49		0.100	100	06/09/2020 01:58	WG1489001
Total Xylenes	35.7		0.300	100	06/09/2020 01:58	WG1489001
(S) Toluene-d8	*114*		*80.0-120*		*06/09/2020 01:58*	WG1489001
(S) 4-Bromofluorobenzene	*112*		*77.0-126*		*06/09/2020 01:58*	WG1489001
(S) 1,2-Dichloroethane-d4	*94.9*		*70.0-130*		*06/09/2020 01:58*	WG1489001

Method Blank (MB)

(MB) R3537232-2 06/07/20 09:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3537232-1 06/07/20 08:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00584	117	70.0-123	
Ethylbenzene	0.00500	0.00521	104	79.0-123	
Toluene	0.00500	0.00552	110	79.0-120	
Xylenes, Total	0.0150	0.0160	107	79.0-123	
(S) Toluene-d8			*102*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.1*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*110*	*70.0-130*	

Method Blank (MB)

(MB) R3537785-2 06/08/20 19:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*120*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3537785-1 06/08/20 19:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00493	98.6	70.0-123	
Ethylbenzene	0.00500	0.00537	107	79.0-123	
Toluene	0.00500	0.00554	111	79.0-120	
Xylenes, Total	0.0150	0.0162	108	79.0-123	
(S) Toluene-d8			*118*	*80.0-120*	
(S) 4-Bromofluorobenzene			*107*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*94.2*	*70.0-130*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
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Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
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Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

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A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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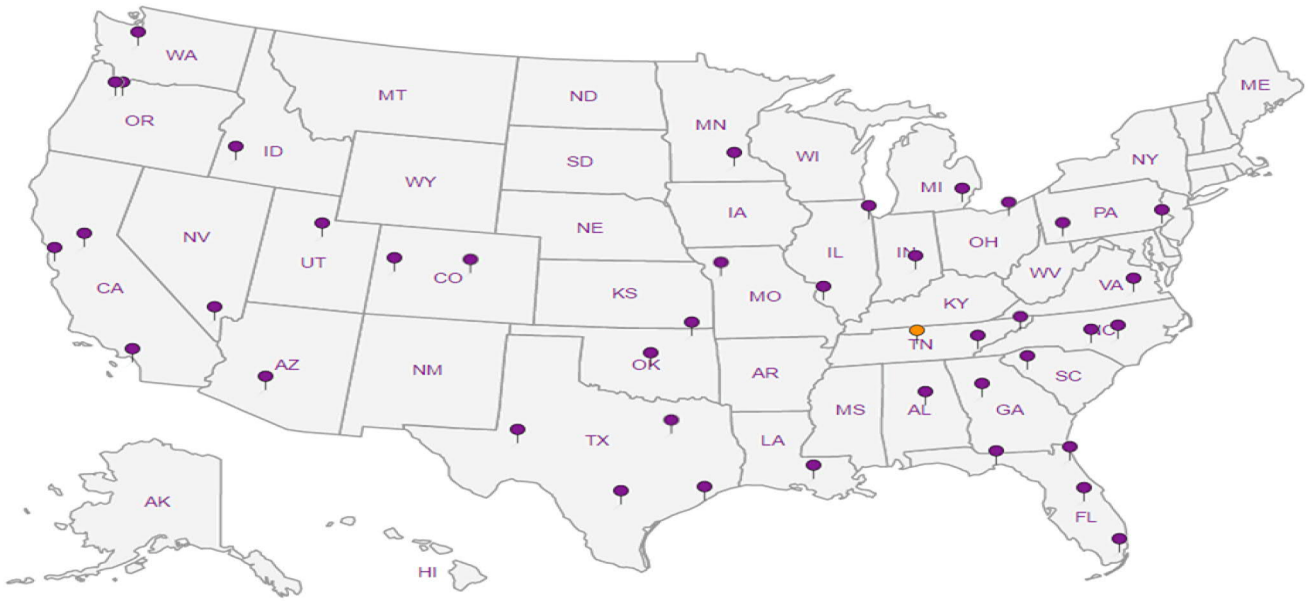


HilCorp-Farmington, NM

382 Road 3100
Aztec, NM 87401

Billing Information:
Clara Cardoza
PO Box 61529
Houston, TX 77208

Report to: **Kurt Hoekstra**

Email To: **khoekstra@hilcorp.com**

Project Description: **State Com J6**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **505-486-9543**

Client Project #

Lab Project # **HILCORANM-STATECOMJ6**

Collected by (print): KURT

Site/Facility ID # STATE COM J #6

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1226168
B052

Acctnum: **HILCORANM**
Template: **T157370**
Prelogin: **P768600**
PM: **823 - Olivia Studebaker**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260BTEX 40mlAmb-HCl	Pres Chk	Remarks	Sample # (lab only)
MW-1		GW		6-3	12:00	~~3~~ 2	X			-01
MW-2		GW		6-3	11:00	~~3~~ 2	X			02
MW-3		GW		6-2	1:15	3	X			03
RW-1		GW		6-1	11:20	3	X			04
RW-2		GW		6-1	1:45	3	X			05
RW-3		GW		6-2	11:00	3	X			06
~~RW-4~~		GW				3	X		No Sample	

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: X UPS __ FedEx __ Courier _____

Tracking # 4430 3422 7850

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Kurt Hoekstra	6-4-20	11:30		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.3 °C Bottles Received: 2+7.1=2.5 16
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/5/20 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

August 07, 2020

HilCorp-Farmington, NM

Sample Delivery Group:	L1245147
Samples Received:	07/30/2020
Project Number:	
Description:	State Com J6
Site:	STATE COM J#6
Report To:	Kurt Hoekstra 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

TABLE OF CONTENTS

MW-1 L1245147-01 GW

Collected by: Kurt
Collected date/time: 07/28/20 13:45
Received date/time: 07/30/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1519736	1	08/04/20 05:53	08/04/20 05:53	JHH	Mt. Juliet, TN

MW-2 L1245147-02 GW

Collected by: Kurt
Collected date/time: 07/27/20 13:20
Received date/time: 07/30/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1519736	1	08/04/20 06:15	08/04/20 06:15	JHH	Mt. Juliet, TN

MW-3 L1245147-03 GW

Collected by: Kurt
Collected date/time: 07/27/20 16:10
Received date/time: 07/30/20 09:00

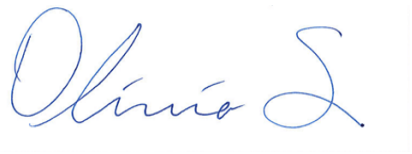
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1519736	1	08/04/20 06:37	08/04/20 06:37	JHH	Mt. Juliet, TN

RW-2 L1245147-04 GW

Collected by: Kurt
Collected date/time: 07/29/20 11:30
Received date/time: 07/30/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1521570	2	08/06/20 21:19	08/06/20 21:19	BMB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Olivia Studebaker
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	08/04/2020 05:53	WG1519736
Ethylbenzene	ND		0.00100	1	08/04/2020 05:53	WG1519736
1-Methylnaphthalene	ND		0.0100	1	08/04/2020 05:53	WG1519736
2-Methylnaphthalene	ND		0.0100	1	08/04/2020 05:53	WG1519736
Naphthalene	ND		0.00500	1	08/04/2020 05:53	WG1519736
Toluene	ND		0.00100	1	08/04/2020 05:53	WG1519736
Xylenes, Total	ND		0.00300	1	08/04/2020 05:53	WG1519736
(S) Toluene-d8	*90.1*		*80.0-120*		*08/04/2020 05:53*	WG1519736
(S) 4-Bromofluorobenzene	*95.4*		*77.0-126*		*08/04/2020 05:53*	WG1519736
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*08/04/2020 05:53*	WG1519736

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	08/04/2020 06:15	WG1519736
Ethylbenzene	ND		0.00100	1	08/04/2020 06:15	WG1519736
1-Methylnaphthalene	ND		0.0100	1	08/04/2020 06:15	WG1519736
2-Methylnaphthalene	ND		0.0100	1	08/04/2020 06:15	WG1519736
Naphthalene	ND		0.00500	1	08/04/2020 06:15	WG1519736
Toluene	ND		0.00100	1	08/04/2020 06:15	WG1519736
Xylenes, Total	ND		0.00300	1	08/04/2020 06:15	WG1519736
(S) Toluene-d8	*93.1*		*80.0-120*		*08/04/2020 06:15*	WG1519736
(S) 4-Bromofluorobenzene	*96.4*		*77.0-126*		*08/04/2020 06:15*	WG1519736
(S) 1,2-Dichloroethane-d4	*99.1*		*70.0-130*		*08/04/2020 06:15*	WG1519736

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	08/04/2020 06:37	WG1519736
Ethylbenzene	ND		0.00100	1	08/04/2020 06:37	WG1519736
1-Methylnaphthalene	ND		0.0100	1	08/04/2020 06:37	WG1519736
2-Methylnaphthalene	ND		0.0100	1	08/04/2020 06:37	WG1519736
Naphthalene	ND		0.00500	1	08/04/2020 06:37	WG1519736
Toluene	ND		0.00100	1	08/04/2020 06:37	WG1519736
Xylenes, Total	ND		0.00300	1	08/04/2020 06:37	WG1519736
(S) Toluene-d8	*93.9*		*80.0-120*		*08/04/2020 06:37*	WG1519736
(S) 4-Bromofluorobenzene	*95.1*		*77.0-126*		*08/04/2020 06:37*	WG1519736
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*08/04/2020 06:37*	WG1519736

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	2	08/06/2020 21:19	WG1521570
Ethylbenzene	0.00951		0.00200	2	08/06/2020 21:19	WG1521570
1-Methylnaphthalene	0.0211		0.0200	2	08/06/2020 21:19	WG1521570
2-Methylnaphthalene	ND		0.0200	2	08/06/2020 21:19	WG1521570
Naphthalene	0.0133		0.0100	2	08/06/2020 21:19	WG1521570
Toluene	ND		0.00200	2	08/06/2020 21:19	WG1521570
Xylenes, Total	0.109		0.00600	2	08/06/2020 21:19	WG1521570
(S) Toluene-d8	*113*		*80.0-120*		*08/06/2020 21:19*	WG1521570
(S) 4-Bromofluorobenzene	*117*		*77.0-126*		*08/06/2020 21:19*	WG1521570
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*08/06/2020 21:19*	WG1521570

Sample Narrative:

L1245147-04 WG1521570: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3556975-2 08/04/20 01:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
1-Methylnaphthalene	U		0.00730	0.0100
2-Methylnaphthalene	U		0.00718	0.0100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*96.5*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3556975-1 08/04/20 00:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00552	110	70.0-123	
Ethylbenzene	0.00500	0.00512	102	79.0-123	
1-Methylnaphthalene	0.00500	0.00465	0.000	14.0-154	
2-Methylnaphthalene	0.00500	0.00465	0.000	15.0-159	
Naphthalene	0.00500	0.00461	92.2	54.0-135	
Toluene	0.00500	0.00529	106	79.0-120	
Xylenes, Total	0.0150	0.0151	101	79.0-123	
(S) Toluene-d8			*92.3*	*80.0-120*	
(S) 4-Bromofluorobenzene			*97.8*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*101*	*70.0-130*	

L1245361-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1245361-03 08/04/20 09:10 • (MS) R3556975-3 08/04/20 10:36 • (MSD) R3556975-4 08/04/20 10:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	ND	0.00804	0.00729	161	146	1	17.0-158	J5		9.78	27
Ethylbenzene	0.00500	ND	0.00736	0.00664	147	133	1	30.0-155			10.3	27
Naphthalene	0.00500	ND	0.00630	0.00610	126	122	1	12.0-156			3.23	35
Toluene	0.00500	ND	0.00770	0.00705	154	141	1	26.0-154			8.81	28
1-Methylnaphthalene	0.00500	ND	ND	ND	0.000	0.000	1	10.0-153	J6	J6	0.000	40
Xylenes, Total	0.0150	ND	0.0226	0.0211	151	141	1	29.0-154			6.86	28
2-Methylnaphthalene	0.00500	ND	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40

L1245361-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1245361-03 08/04/20 09:10 • (MS) R3556975-3 08/04/20 10:36 • (MSD) R3556975-4 08/04/20 10:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) Toluene-d8					*93.2*	*93.5*		*80.0-120*				
(S) 4-Bromofluorobenzene					*101*	*101*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*100*	*100*		*70.0-130*				

Method Blank (MB)

(MB) R3557278-3 08/06/20 20:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
1-Methylnaphthalene	U		0.00730	0.0100
2-Methylnaphthalene	U		0.00718	0.0100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3557278-1 08/06/20 20:00 • (LCSD) R3557278-2 08/06/20 20:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00519	0.00477	104	95.4	70.0-123			8.43	20
Ethylbenzene	0.00500	0.00491	0.00455	98.2	91.0	79.0-123			7.61	20
1-Methylnaphthalene	0.00500	0.00390	0.00406	0.000	0.000	14.0-154			0.000	40
2-Methylnaphthalene	0.00500	0.00371	0.00414	0.000	0.000	15.0-159			0.000	40
Naphthalene	0.00500	0.00437	0.00439	87.4	87.8	54.0-135			0.457	20
Toluene	0.00500	0.00538	0.00489	108	97.8	79.0-120			9.54	20
Xylenes, Total	0.0150	0.0157	0.0139	105	92.7	79.0-123			12.2	20
(S) Toluene-d8				*113*	*113*	*80.0-120*				
(S) 4-Bromofluorobenzene				*105*	*109*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*112*	*112*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

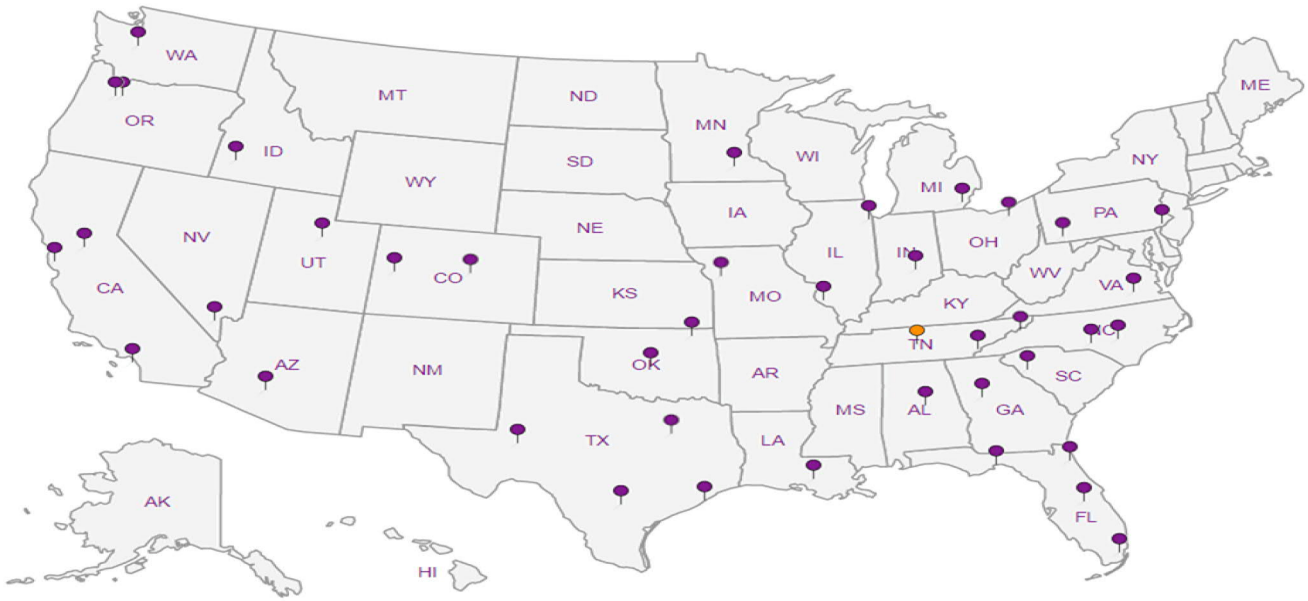
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



HilCorp-Farmington, NM

382 Road 3100
Aztec, NM 87401

Billing Information:
Clara Cardoza
PO Box 61529
Houston, TX 77208

Pres Chk

Report to: Kurt Hoekstra

Email To: @hilcorp.com;khoekstra@hilcorp.com

Project Description: State Com J6

City/State Collected:

Please Circle: PT MT CT ET

Phone: 505-486-9543

Client Project #

Lab Project # HILCORANM-STATECOMJ6

Collected by (print): Kurt

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

Site/Facility ID # State Com J# 6

P.O. #

Quote #

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Analysis / Container / Preservative

V826012MNP 40mlAmb-HCl

NO SAMPLES FIELD FILTERED

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1245147
1034

Acctnum: HILCORANM
Template: T146869
Prelogin: P784559
PM: 823 - Olivia Studebaker
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW-1		GW		7.28	1:45	2 X		-01
MW-2		GW		7-27	1:20	2 X		02
MW-3		GW		7-27	4:10	2 X		03
RW-1 No Sample		GW				2 X		
RW-2		GW		7-29	11:30	2 X		04
RW-3 No Sample		GW				2 X		
RW-4 No Sample		GW				2 X		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ____

Remarks:

pH ____ Temp ____

Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier ____

Tracking # 4430 3422 7978

Sample Receipt Checklist

COC Seal Present/Intact:	NP Y N
COC Signed/Accurate:	Y N
Bottles arrive intact:	Y N
Correct bottles used:	Y N
Sufficient volume sent:	Y N
If Applicable	
VOA Zero Headspace:	Y N
Preservation Correct/Checked:	Y N
RAD Screen <0.5 mR/hr:	Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Kurt Hoekstra	7-29-20	2:00		No	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.4 °C Bottles Received: 8	
				5-1.5-4	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 07/30/2020 Time: 9:00	Hold: Condition: NCF / OK

ANALYTICAL REPORT

October 23, 2020

HilCorp-Farmington, NM

Sample Delivery Group:	L1273509
Samples Received:	10/14/2020
Project Number:	
Description:	State Com J6
Site:	STATE COM J6
Report To:	Kurt Hoekstra 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

TABLE OF CONTENTS

MW-1 L1273509-01 GW

Collected by: Kurt | Collected date/time: 10/09/20 14:00 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	1	10/22/20 00:38	10/22/20 00:38	ADM	Mt. Juliet, TN

MW-2 L1273509-02 GW

Collected by: Kurt | Collected date/time: 10/09/20 12:58 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	1	10/22/20 00:58	10/22/20 00:58	ADM	Mt. Juliet, TN

MW-3 L1273509-03 GW

Collected by: Kurt | Collected date/time: 10/09/20 12:07 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	1	10/22/20 01:17	10/22/20 01:17	ADM	Mt. Juliet, TN

RW-1 L1273509-04 GW

Collected by: Kurt | Collected date/time: 10/12/20 10:47 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	50	10/22/20 01:36	10/22/20 01:36	ADM	Mt. Juliet, TN

RW-2 L1273509-05 GW

Collected by: Kurt | Collected date/time: 10/12/20 12:25 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	1	10/22/20 01:56	10/22/20 01:56	ADM	Mt. Juliet, TN

RW-3 L1273509-06 GW

Collected by: Kurt | Collected date/time: 10/12/20 13:57 | Received date/time: 10/14/20 09:00

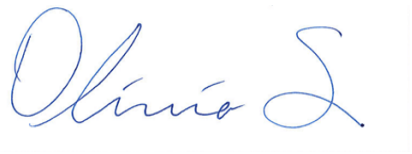
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	100	10/22/20 02:15	10/22/20 02:15	ADM	Mt. Juliet, TN

RW-4 L1273509-07 GW

Collected by: Kurt | Collected date/time: 10/12/20 15:17 | Received date/time: 10/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563214	100	10/22/20 02:34	10/22/20 02:34	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1563676	250	10/22/20 18:15	10/22/20 18:15	BMB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Olivia Studebaker
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/22/2020 00:38	WG1563214
Ethylbenzene	ND		0.00100	1	10/22/2020 00:38	WG1563214
1-Methylnaphthalene	ND		0.0100	1	10/22/2020 00:38	WG1563214
2-Methylnaphthalene	ND		0.0100	1	10/22/2020 00:38	WG1563214
Naphthalene	ND		0.00500	1	10/22/2020 00:38	WG1563214
Toluene	ND		0.00100	1	10/22/2020 00:38	WG1563214
Xylenes, Total	ND		0.00300	1	10/22/2020 00:38	WG1563214
(S) Toluene-d8	*106*		*80.0-120*		*10/22/2020 00:38*	WG1563214
(S) 4-Bromofluorobenzene	*96.7*		*77.0-126*		*10/22/2020 00:38*	WG1563214
(S) 1,2-Dichloroethane-d4	*114*		*70.0-130*		*10/22/2020 00:38*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/22/2020 00:58	WG1563214
Ethylbenzene	ND		0.00100	1	10/22/2020 00:58	WG1563214
1-Methylnaphthalene	ND		0.0100	1	10/22/2020 00:58	WG1563214
2-Methylnaphthalene	ND		0.0100	1	10/22/2020 00:58	WG1563214
Naphthalene	ND		0.00500	1	10/22/2020 00:58	WG1563214
Toluene	ND		0.00100	1	10/22/2020 00:58	WG1563214
Xylenes, Total	ND		0.00300	1	10/22/2020 00:58	WG1563214
(S) Toluene-d8	*111*		*80.0-120*		*10/22/2020 00:58*	WG1563214
(S) 4-Bromofluorobenzene	*99.7*		*77.0-126*		*10/22/2020 00:58*	WG1563214
(S) 1,2-Dichloroethane-d4	*114*		*70.0-130*		*10/22/2020 00:58*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/22/2020 01:17	WG1563214
Ethylbenzene	ND		0.00100	1	10/22/2020 01:17	WG1563214
1-Methylnaphthalene	ND		0.0100	1	10/22/2020 01:17	WG1563214
2-Methylnaphthalene	ND		0.0100	1	10/22/2020 01:17	WG1563214
Naphthalene	ND		0.00500	1	10/22/2020 01:17	WG1563214
Toluene	ND		0.00100	1	10/22/2020 01:17	WG1563214
Xylenes, Total	ND		0.00300	1	10/22/2020 01:17	WG1563214
(S) Toluene-d8	*110*		*80.0-120*		*10/22/2020 01:17*	WG1563214
(S) 4-Bromofluorobenzene	*99.4*		*77.0-126*		*10/22/2020 01:17*	WG1563214
(S) 1,2-Dichloroethane-d4	*115*		*70.0-130*		*10/22/2020 01:17*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.121		0.0500	50	10/22/2020 01:36	WG1563214
Ethylbenzene	1.07		0.0500	50	10/22/2020 01:36	WG1563214
1-Methylnaphthalene	1.91		0.500	50	10/22/2020 01:36	WG1563214
2-Methylnaphthalene	0.902		0.500	50	10/22/2020 01:36	WG1563214
Naphthalene	0.956		0.250	50	10/22/2020 01:36	WG1563214
Toluene	ND		0.0500	50	10/22/2020 01:36	WG1563214
Xylenes, Total	18.1		0.150	50	10/22/2020 01:36	WG1563214
(S) Toluene-d8	*108*		*80.0-120*		*10/22/2020 01:36*	WG1563214
(S) 4-Bromofluorobenzene	*99.6*		*77.0-126*		*10/22/2020 01:36*	WG1563214
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*10/22/2020 01:36*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/22/2020 01:56	WG1563214
Ethylbenzene	0.00158		0.00100	1	10/22/2020 01:56	WG1563214
1-Methylnaphthalene	ND		0.0100	1	10/22/2020 01:56	WG1563214
2-Methylnaphthalene	ND		0.0100	1	10/22/2020 01:56	WG1563214
Naphthalene	ND		0.00500	1	10/22/2020 01:56	WG1563214
Toluene	ND		0.00100	1	10/22/2020 01:56	WG1563214
Xylenes, Total	0.0147		0.00300	1	10/22/2020 01:56	WG1563214
(S) Toluene-d8	*108*		*80.0-120*		*10/22/2020 01:56*	WG1563214
(S) 4-Bromofluorobenzene	*108*		*77.0-126*		*10/22/2020 01:56*	WG1563214
(S) 1,2-Dichloroethane-d4	*118*		*70.0-130*		*10/22/2020 01:56*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	1.28		0.100	100	10/22/2020 02:15	WG1563214
Ethylbenzene	0.466		0.100	100	10/22/2020 02:15	WG1563214
1-Methylnaphthalene	ND		1.00	100	10/22/2020 02:15	WG1563214
2-Methylnaphthalene	ND		1.00	100	10/22/2020 02:15	WG1563214
Naphthalene	ND		0.500	100	10/22/2020 02:15	WG1563214
Toluene	ND		0.100	100	10/22/2020 02:15	WG1563214
Xylenes, Total	7.09		0.300	100	10/22/2020 02:15	WG1563214
(S) Toluene-d8	*109*		*80.0-120*		*10/22/2020 02:15*	WG1563214
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*10/22/2020 02:15*	WG1563214
(S) 1,2-Dichloroethane-d4	*113*		*70.0-130*		*10/22/2020 02:15*	WG1563214

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.286		0.100	100	10/22/2020 02:34	WG1563214
Ethylbenzene	3.66		0.100	100	10/22/2020 02:34	WG1563214
1-Methylnaphthalene	5.76		1.00	100	10/22/2020 02:34	WG1563214
2-Methylnaphthalene	2.59		1.00	100	10/22/2020 02:34	WG1563214
Naphthalene	3.05		0.500	100	10/22/2020 02:34	WG1563214
Toluene	ND		0.100	100	10/22/2020 02:34	WG1563214
Xylenes, Total	4.88		0.750	250	10/22/2020 18:15	WG1563676
(S) Toluene-d8	*103*		*80.0-120*		*10/22/2020 02:34*	WG1563214
(S) Toluene-d8	*102*		*80.0-120*		*10/22/2020 18:15*	WG1563676
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*10/22/2020 02:34*	WG1563214
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*10/22/2020 18:15*	WG1563676
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*10/22/2020 02:34*	WG1563214
(S) 1,2-Dichloroethane-d4	*90.4*		*70.0-130*		*10/22/2020 18:15*	WG1563676

Method Blank (MB)

(MB) R3584313-3 10/21/20 17:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
1-Methylnaphthalene	U		0.00730	0.0100
2-Methylnaphthalene	U		0.00718	0.0100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3584313-1 10/21/20 15:53 • (LCSD) R3584313-2 10/21/20 16:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00523	0.00514	105	103	70.0-123			1.74	20
Ethylbenzene	0.00500	0.00539	0.00545	108	109	79.0-123			1.11	20
1-Methylnaphthalene	0.00500	0.00413	0.00451	0.000	0.000	14.0-154			0.000	40
2-Methylnaphthalene	0.00500	0.00438	0.00468	0.000	0.000	15.0-159			0.000	40
Naphthalene	0.00500	0.00461	0.00463	92.2	92.6	54.0-135			0.433	20
Toluene	0.00500	0.00533	0.00526	107	105	79.0-120			1.32	20
Xylenes, Total	0.0150	0.0162	0.0159	108	106	79.0-123			1.87	20
(S) Toluene-d8				*110*	*111*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.1*	*99.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*117*	*119*	*70.0-130*				

Method Blank (MB)

(MB) R3584601-2 10/22/20 09:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3584601-1 10/22/20 08:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Xylenes, Total	0.0150	0.0155	103	79.0-123	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*98.9*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*89.3*	*70.0-130*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

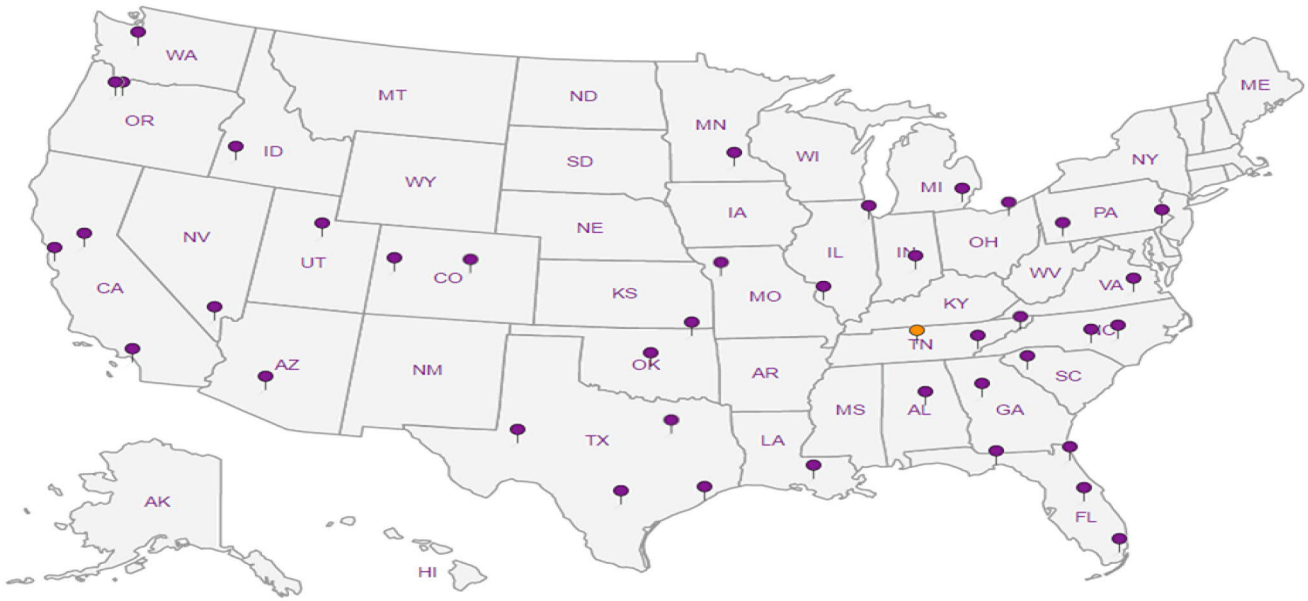
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



HilCorp-Farmington, NM

382 Road 3100
Aztec, NM 87401

Billing Information:
Clara Cardoza
PO Box 61529
Houston, TX 77208

Pres Chk

Report to: Kurt Hoekstra

Email To: jdeal@hilcorp.com;khoekstra@hilcorp.com

Project Description: State Com J6

City/State Collected:

Please Circle: PT MT CT ET

Phone: 505-486-9543

Client Project #

Lab Project # HILCORANM-STATECOMJ6

Collected by (print): KURT

Site/Facility ID # STATE COM J #6

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative: V826012MNP 40ml Amb-HCl	Remarks	Sample # (lab only)
MW-1		GW		10-9	2:00	2	X		-01
MW-2		GW		10-9	12:58	2	X		-02
MW-3		GW		10-9	12:07	2	X		-03
RW-1		GW		10-12	10:47	2	X		-04
RW-2		GW		10-12	12:25	2	X		-05
RW-3		GW		10-12	1:57	2	X		-06
RW-4		GW		10-12	3:17	2	X		-07

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1277509
F046

Acctnum: HILCORANM
Template: T146869
Prelogin: P800119
PM: 823 - Olivia Studebaker
PB: 9/28/20
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx __Courier _____

Tracking # 918625035300

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by: (Signature) Kurt Hoekstra	10-13-20	2:30	Received by: (Signature)	Trip Blank Received: Yes / NO HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3°C Bottles Received: 19 2.5+1=2.6
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/14/20 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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 20557

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 20557
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 Annual Groundwater Report: Content satisfactory 1. Continue the removal of NAPL and dissolved phase constituents from site wells 2. Continue quarterly groundwater monitoring and sampling 3. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022	12/28/2021